

BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

Vol. 11

JULY, 1953

No. 3

Plants for the Peat Garden— <i>Will Ingwersen</i>	57
Diapensiaceae— <i>Grace E. Butcher</i>	65
A Day on Mt. Angeles— <i>Albert M. Sutton</i>	68
Trailing or Snowy Phlox— <i>Stephen F. Hamblin</i>	74
Several Sandworts— <i>Richard Darling</i>	75
Round Robins— <i>Grace F. Babb</i>	76
<i>Potentilla megalantha</i> — <i>Stephen F. Hamblin</i>	78
Personal Annual Report— <i>Doretta Klaber</i>	78
Letters to the Editor.....	80
The Seed Exchange.....	81
What Makes a Good Rock Garden— <i>Marcel Le Piniec</i>	82
Regional Reports.....	84

DIRECTORATE

BULLETIN

Editor Emeritus

DR. EDGAR T. WHERRY, University of Pennsylvania, Philadelphia 4, Pa.

Editor

G. G. NEARING, Ramsey, N. J.

Associate Editors

MRS. EDWARD M. BABB, Portland, Maine

DOROTHY EBEL HANSELL, Summit, N. J.

CARL S. ENGLISH, JR., Seattle Wash.

MRS. J. NORMAN HENRY, Gladwyne, Pa.

MRS. G. R. MARRIAGE, Colorado Springs, Colo.

Exchange Editor

HAROLD EPSTEIN, Larchmont, N. Y.

AMERICAN ROCK GARDEN SOCIETY

Honorary President.....MRS. CLEMENT HOUGHTON, Chestnut Hill, Mass.

President.....HAROLD EPSTEIN, Larchmont, N. Y.

Corresponding Secretary.....DOROTHY EBEL HANSELL, Summit, N. J.

Recording Secretary.....MRS. IDA A. THOMAS, Paterson, N. J.

Financial Secretary.....MRS. J. B. JOHNSON, Pompton Lakes, N. J.

Treasurer.....ALEX D. REID, Mountain Lakes, N. J.

Vice-Presidents

LEONARD J. BUCK

MRS. HARRY HAYWARD

MISS ELIZABETH GREGORY HILL

ARTHUR R. VIRGIN

BRIAN O. MULLIGAN

MRS. COULTER STEWART

Directors—

Term Expires 1954

MRS. WALTER D. BLAIR

MRS. J. M. HODSON

E. L. TOTTEN

MRS. MORTIMER J. FOX

MRS. CLEMENT S. HOUGHTON

Term Expires 1955

KURT W. BAASCH

MRS. M. J. FITZPATRICK

H. LINCOLN FOSTER

PETER J. VAN MELLE

DR. C. R. WORTH

Director of Seed Exchange

BERNARD HARKNESS, 5 Castle Park, Rochester 20, N. Y.

REGIONAL CHAIRMEN

Northwestern.....C. LEO HITCHCOCK, Seattle, Wash.

Oregon Sub-Group.....FLOYD W. McMULLEN, Portland, Oregon

Northern.....MRS. WARDER I. HIGGINS, Butte, Mont.

Rocky Mountain.....MRS. G. R. MARRIAGE, Colorado Springs, Colo.

Central.....MRS. GLENN FISHER, Oshkosh, Wisconsin

Lakes.....ROBERT M. SENIOR, Cincinnati, Ohio

North Atlantic.....E. L. TOTTEN, Ho-Ho-Kus, N. J.

New England.....DR. HELEN C. SCORGIE, Harvard, Mass.

Maine Sub-Group.....PHILLIP C. KEITH, Cape Elizabeth, Maine

Published by the American Rock Garden Society, incorporated under the laws of the State of New Jersey. You are invited to join—annual dues \$3.50. Address communications regarding membership and dues to Mrs. J. B. Johnson, Box 151, Pompton Lakes, N. J., other matters relating to the Society, Mrs. Dorothy E. Hansell, 66 Pittsford Way, New Providence, N. J. Address to G. G. Nearing, R.F.D. Box 216, Ramsey, N. J., manuscripts and other matter relating to the Bulletin.

BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

G. G. Nearing, Editor

VOL. 11

JULY 1953

No. 3

PLANTS FOR THE PEAT GARDEN

WILL INGWERSEN, EAST GRINSTEAD, SUSSEX

THERE IS no more exciting moment for the enthusiastic gardener than when, having made over some part of the garden into something different, the time comes to plant it with the treasures which have been collected together for this purpose. The temptation to fill it up at once is great, but should be resisted, and spaces left for additions and after-thoughts. It may be, of course, that the whole scheme has been planned for gradual development over a period of time, and if one can be sufficiently patient, or if it is not possible to accumulate immediately sufficient plants to fill the area, this policy is one to be recommended: I have so often found myself wandering round my own garden, a newly acquired plant in one hand and a trowel in the other, searching in vain for a vacant spot for the newcomer.

Before I commenced writing this promised continuation of my previous description of the making of a peat garden I began to compile an alphabetical list of suitable plants, but this soon looked so much like a mere catalogue that I dispensed with it and determined to take an imaginary walk round an imaginary peat garden, and describe the plants as I came to them. This may be less valuable for reference purposes, but it is likely to make a more readable article and it is assuredly more pleasant to write and I shall get as much pleasure out of the writing as I hope my readers will obtain from the perusal. In any case my list will not be exhaustive; too many pages would be occupied by a more or less complete list of appropriate plants. It may be taken for granted however, that every plant I mention has actually been grown successfully in a peat garden in this country, and may hopefully be attempted in the U. S. A., having due regard to local conditions, which, I am well aware, differ so widely in America; with much greater extremes of heat and cold, drought and humidity, than obtain in this fortunate island with its temperate climate.

I realise also that I shall, without doubt, describe a number of plants which may not be easily obtainable by American readers. If I were to confine myself to plants which were readily available in the U. S. A. my list would be, I fear, a short one. Your Editor and your President have both asked me to write as



Photo by Donald F. Merritt

Cassiope lycopodioides, difficult in the rock garden, thrives in the peat garden

much as possible of plants which can be obtained from nurserymen or other sources on your side of the Atlantic, and I have tried to adhere as much as possible to their instructions, but this time I am going to give myself a free hand. After all, rarities are moving in a slow but steady stream from English and Continental nurseries to American gardens and it is surely only a question of time before the growing interest in alpine plants induces a supply to meet the demand.

The *Pyrolas* are plants which are difficult to establish in the garden, and more failures than successes have attended my many attempts until I tried them in the peat garden. These plants have a distressing lack of fibrous roots, and their wiry, macaroni-like roots do not take kindly to ordinary soil after they have been disturbed. Planted in the cool depths of a peat bed however, they soon show a liking for their quarters and commence to run about in all directions. I have achieved a signal success with the pretty *P. incarnata* (correctly a form of *P. asarifolia*) I well remember seeing this plant growing in quantity in open woodlands in Canada and America, along with that delightful but annoying little *P. (Moneses) uniflora*, with which I have never had any great success—although I have not yet attempted it in the peat garden. *P. incarnata*, with its leathery, glossy, rounded leaves and racemes of pink, bell-shaped flowers on six to nine inch stems will ramble pleasantly and harmlessly amongst its neighbours. It is useless to expect it to stay home and make a tidy clump, that is not its nature and one must be content to allow it to wander hither and thither.

Chiogenes hispidula, the Creeping Snowberry, is a splendid plant for the peat garden, and may be planted actually in the peat walls, where its creeping stems, clothed with evergreen, slightly aromatic leaves, will bind the loose peat and prevent erosion. The white, bell-shaped flowers are carried singly on tiny stems and are followed by small white berries. This is a native of North America as well as Japan, and may be sought in the catalogues of American nurserymen.

Cassiopes of all kinds revel in the conditions provided for them in a peat garden, and the only one which I have not yet seen flourishing is the lovely Himalayan *C. Wardii*, and this is as yet too rare in cultivation for it to be cultivated anywhere but in a cherished pot or pan immediately under the eye of its fortunate possessor—with the possible exception of one or two favoured gardens in the north of England and Scotland where it grows more readily than it does in the hotter, drier south. *C. lycopodioides*, from Asia and Northwest America soon makes a wide mat of deep green, and smother the evergreen carpets during spring with countless white bell flowers on inch-high stems. A cushion of this plant in full flower is one of the most satisfying sights to a plant lover, and I never fail to be thrilled each spring by the sight of my freely blossoming plants. *C. Mertensiana*, which extends in nature from Alaska to California, is more upright, making a branching bushlet a foot or so in height, bearing similarly cup-shaped, snow-white bells all adangle from its leaf-clad stems. *CC fastigiata* (Himalaya), *selaginoides* (Himalaya and China), *Stelleriana* (America and Asia) and *tetragona* (America, Asia and Europe) all flourish in the peat garden, but I have not yet succeeded with the tiniest of them all, the delicate little, moss-like *C. hypnoides* which is, by all tests, a really difficult plant to establish under any conditions.

The plant which Carl Linné loved so dearly that he gave it his own immortal name, the gracious Twinflower, *Linnaea borealis*, is a must for the peat garden. I have grown the plant, with average success, all my life, but never, until I planted it on a ledge above a peat wall have I seen it cover so much ground or flower so freely in cultivation. It is a plant which brings me the happiest memories of collecting expeditions in the Rocky Mountains, where I



Photo by Donald F. Everett

Rhododendron hybrid Sapphirite, like other dwarf
its kind, revels in peat garden conditions

saw the robust American form sheeting many yards of ground with fairy bells of purest pink, carried in pairs on thread-like stems above the wandering, prostrate stems and tiny rounded leaves of greeny-brown.

In the tour of the peat garden which is pictured in my mind I am continually coming up against some of the charming prostrate growing and tuft forming Rhododendrons which find such a fitting situation on the peaty terraces. I enter upon any description of them with some trepidation, for there are so many that if I become involved with them there will be too little space for the many other plants I wish to mention. One or two however, are so insistent in their demand for inclusion that I must speak of them. One which is not amongst the most dwarf, yet is singularly pleasing, is *R. impeditum*, of which there are several forms. Care should be taken to obtain the most compact growing type, which forms dense, six to nine inch huddles of compact branches, clothed with small grey-green leaves and smothered in the spring with innumerable deep purple flowers, resting in stemless clusters on the hummocks of foliage.

Another particular favourite of mine is *R. pemakoense*, which is never more than a few inches in height and decorates its neat bushes with large bell flowers of pale pink. *R. repens* (or, more correctly, *R. Forrestii*) is a rhododendron of infinite variety, and great beauty. The most prostrate form should be obtained, in which the woody stems creep close to the ground, to be adorned in due course—but some forms are shy flowering—with large flaming crimson trumpets most beautiful to behold. *R. radicans* is a free flowering dwarf of neat habit and lowly stature, but the flowers are a curious shade of magenta-pink which is not to everyone's liking, although I am fond of the plant myself.

The tale of rhododendron could continue through dozens of attractive dwarfs; I have said nothing of the pink bells of *R. Williamsianum* or the blue flowers of the several lovely hybrids of *R. Augustinii* (although these are usually rather tall for any but the larger peat gardens) and of the innumerable others, but their importance should be realised, and the best of them will fill important places in the peat garden, and will also seed themselves about in an attractive manner.

Epigaea repens, the creeping Mayflower, must be known to all American gardeners, and it is a splendid peat garden plant, as is its Asiatic counterpart, *E. asiatica*, but there is a very rare plant found in eastern Europe which is so supremely lovely that it is worth any effort to obtain. It is far from being easy to grow but seems well contented in beds of pure peat and leafmould and a shaded or cool north aspect. It is *Orphanidesia gaultherioides*, and it recently gained an Award of Merit when shown in London. It is an evergreen, with leathery, dark green leaves clustered into dense tufts. Amidst the attractive foliage, during April and May, appear more than inch-wide, cup-shaped flowers of rich pink.

Many of the rare Primulas, and especially those of the *Petiolaris* section, find conditions in the peat garden very much to their liking, and indeed, it was not until I tried them in this medium that I was able to grow certain of them at all in the south of England. Such old friends as *P. Edgeworthii* (*P. Winteri*) and *P. scapigera* have always proved amenable when provided with a cool north wall, or shady crevices between stones, but the more recent introductions such as *PP. Boothii*, *aureata*, *bhutanica* and etc. more or less defeated all attempts to grow them successfully out of doors in the south until they were tempted with the walls and beds of the peat garden, and here they have thriven mightily, showing every sign of contentment and even passing through our wet and uncertain winters happily resting in their fat growth buds.



Photo by Donald F. Merrett

Orphanidesia gaultherioides, both rare and beautiful, belongs in the peat garden

Arctericia nana is a choice little Japanese shrub of no more than an inch or two in height. It is evergreen and the small, dark green leathery leaves are densely set on the short, wiry stems. In the autumn the clusters of tiny flower buds can clearly be seen but they do not develop until the following year, when they open into pure white bells like those of a tiny lily-of-the-valley. When planted in a peat bed this little charmer runs around in a most encouraging manner and soon forms a healthy little colony. Another lovely dwarf shrub is *Philesia buxifolia*, from South America, but as this is frankly on the tender side it should be treated with caution in the coldest eastern States. With me, in the peat garden it is quite hardy, and when the large, tubular, *Lapageria*-like flowers of deep pink are seen amongst the dark, narrow foliage, it is an unforgettable sight.

The quaintest of little Slipper-flowers, *Calceolaria Darwinii* is nowhere so happy as in an open pocket in the peat garden. It is far from being insistent upon such conditions, and can be grown elsewhere if desired, but a few tufts of it are extremely attractive, with their large brown and gold, white-barred flowers dangling singly from three inch stems, and invariably cause much comment from all who behold them. Another little calceolaria, *C. tenella*, is especially pleasing when planted at the foot of a peat wall, up which its frail stems will creep, gradually forming a close mat of pale green stems and leaves. Myriads of soft yellow, tiny flowers are borne on half-inch stems during the early summer.

Gaultherias and Vacciniums find the conditions in a peat garden very much to their liking, and, although many species are too tall and vigorous, there is a number of pygmy kinds which are great fun, and will flourish here as they do nowhere else: I love to see foot-wide mats of the choice *G. trichophylla*, starred with large blue berries and such choice Vacciniums as *V. Delavayi* and *V. nummularium* are the kind of shrub one cannot afford to be without. *Pernettya tasmanica* is an allied shrublet, forming close mats of evergreen leaves, smothered in the late summer with large red fruits, which makes an excellent companion for the others named above. The dwarfest of the three genera named in this paragraph are ideal plants for placing actually in the peat walls to help binding and consolidating them—a feature which should not be neglected, as, if the steep banks and walls are not held together in this manner they will in time tend to erode and wear down.

Most of the true heathers are too large, and too apt to take possession of their surroundings to the detriment of less vigorous neighbours, to be trusted in any but the largest of peat gardens, but there are a few Liliputians which are trustworthy. One such is *Calluna vulgaris Foxii nana*, which forms deep green pincushions and bears tiny plumes of pink heather flowers in the late summer. There are also one or two tiny forms of *Calluna vulgaris minima* which are even smaller. I also like to include a plant or two of the slightly tender *Erica umbellata*, a heath from southern Europe which bears masses of deep pink flowers during the early year. This should be provided with a warm sheltered corner, and does not object to sunshine.

Kalmiopsis Leachiana, that delightful little American shrub which was introduced into Britain only a few years ago, has rapidly won favour, and there could be no more worthy plant to place in a prominent position in the peat garden. Mr. Epstein, I have little doubt, will raise his eyebrows when he reads this, and will recall the plants he was shown when he visited our nursery and saw—and photographed, *Kalmiopsis* growing in a limestone rock garden and in full sun. This is just an example of the cussedness of plants, and not a recipe for the successful cultivation of a plant which is, in general, much happier in a cool,



Photo by Donald F. Merrett

Vaccinium cylindricum, one of several dwarf blueberries, all of which like peat

peaty soil than in the hot dry conditions where it has thriven with me for several years against all precedent.

In some of the deeper recesses between outjutting shoulders of peat wall is an excellent place to establish the *Shortias* and *Schizocodons*, which find such situations very much to their liking. Both *Shortia uniflora* and the even lovelier

Asiatic *S. uniflora grandiflora* will spread into fine mats of handsome glossy foliage, and freely produce their exquisite flowers in the spring, and never have I grown the magnificent *Schizocodon macrophyllum* better than here, in beds of pure peat and leafmould.

The end of my space draws near, although I am far from the end of my list of plants, but I have mentioned enough to make a good beginning for anyone who is setting out to attempt planting a peat garden. I can assure them that it is great fun, and that there is much solid satisfaction to be obtained from succeeding with plants which have hitherto proved fickle and uncertain and have been obviously discontented with the conditions offered to them.

As announced in the April issue, where Will Ingwersen tells how to build a peat garden, anyone wishing to secure block peat should write to the editor, who will put him in touch with a producer of it.



Schizocodon soldanelloides

DIAPENSIACEAE

GRACE E. BUTCHER, LEWISTON, MAINE

Photographs by the author

THE DIAPENSA family is not large but its members are varied in appearance and all are intriguing. *Diapensia lapponica*, *Pyxidantha barbulate*, *Shortia galacifolia* (Oconee bells) and *Galax aphylla* are all natives of North America. Schizocodons, the most beautiful members, grow in the woodlands of Japan as do the varieties of *Shortia uniflora* called Nippon bells.

The genus *Shortia* with only two species, one native of eastern North America and the other of Japan, is an illustration of Asa Gray's contention that the flora of eastern North America and Japan were originally distributed from a common center.

Pyxidantha barbulata is a native of the pine barrens of New Jersey, Virginia and South Carolina, and *Galax aphylla* extends from Virginia to Georgia and Alabama, but *Diapensia lapponica* is an arctic plant. It is a part of our New England relict flora and occurs on Mt. Katahdin in Maine, the White Mountains of New Hampshire, to a small extent on Mt. Mansfield in Vermont, the Adirondack Mountains of New York and extends northward across the arctic regions to a latitude of 82 degrees in Ellesmere Island.



Diapensia lapponica

To discover this plant in its native environment is a thrill. A dwarf, woody evergreen, it forms tight cushions of all sizes and shapes, some tufts becoming almost perfect spheres, usually anchored with a long woody root deep into the cracks and fissures of the mountain. The buds which form deep down in the closely-packed foliage grow larger almost unnoticed as the snow and ice melt, and after the first few warm nights buds appear as if by magic, resembling lustrous pearls, to open later as pure white flowers consisting of a five lobed corolla with five yellow stamens inserted in its sinuses. This explains its name from the Greek *di*-double and *pente*-five. As its specific name *lapponica* implies it grows in Lapland as well as Norway, Sweden and other boreal areas of Europe.

The variety *D. himalaica* seen in Tibet has pink flowers and has been described as "delightful."

On Mt. Katahdin most of the *Diapensia* foliage turns a deep red in the fall forming colorful spots on the disintegrated pink granite of the northern



Shortia uniflora grandiflora

plateau. On the Presidential Range in New Hampshire a larger part of the plants remain green throughout the year.

In its native habitat the soil is composed of decaying sedges and arctic plants combined with disintegrated rocks. Mountains are cloud-covered more often than not furnishing an abundance of moisture. It would seem that this moisture-laden air is an even more important requirement of *Diapensia* than the good drainage supplied by its mountain home.

In cultivation *Diapensia lapponica* is difficult. Success depends greatly upon securing the complete root system when collecting and retaining a ball of the original soil around the roots. A substitute for the native soil is a mixture of fine sand and well-weathered real peat if available (otherwise peat moss) in the proportion of three parts of sand to one of peat. To keep it five years and watch the cushions grow larger each year is gratifying.

Japanese members of the *Diapensia* family are woodlanders well worth growing.

Shortia uniflora is a caespitose rather straggly evergreen three or four inches high with a bright pink corolla, often with one split petal. The variety *S. uniflora grandiflora* is more compact with larger leaves and flowers. The flowers have dentate, widely funnel-shaped corollas of a beautiful shell pink color. As is characteristic of the family the plant carries its red fall coloring into spring and the flowers open while the leaves are still red, making a beautiful combination. Before the flowers fade however their color grows lighter and the leaves may have changed to green depending on the temperature. Hot weather hastens the change. There is also a form *S. uniflora grandiflora rosea*.

Perhaps the most beautiful of the family are the *Schizocodons*. The long generic name is from the Greek *Schizo*—to cut and *kodon*—a bell.

Schizocodon soldanelloides and *S. soldanelloides* var. *ilicifolius* are two charming plants of the higher Japanese woodlands. Another *S. macrophyllus* (with enlarged leaves) is a larger and little less graceful plant than *S. soldanelloides* but is somewhat easier to establish. *S. alpinus* is a varietal form of *S. soldanelloides* which tends to deeper colored flowers and redder fall foliage.

Schizocodon soldanelloides (Soldanella-like) called the "Mirror of the Mountain" has rounded leaves of thin leathery texture, evenly toothed on the edges with a highly polished appearance. Each flower stalk carries at its top several pendant, deeply fringed, bell-shaped flowers of great beauty.

Schizocodon soldanelloides var. *ilicifolius* (holly-leaved) has somewhat smaller, and much thicker, deeply veined leaves, with deeper, widely separated toothing resembling holly. The fall coloring is dark red with a beautiful bronzy appearance much different from *S. soldanelloides*. The flowers of var. *ilicifolius* are larger, with more wide open bells, of a lighter shade of pink. They nod daintily from the top of the flower stalk, some in such a way as to show the beautiful ruby-crimson veining on the inside. The fringe is very deep and appears as though applied to the outside in several rows reminding one of the cut paper fringe of Maybaskets.

There is a white variety, *S. soldanelloides* var. *ilicifolius albus*, that is identical except in point of color.

The Schizocodons have hard wiry rootstalks which make them hard to establish. They need a shady place with a soil of cool, moist sandy humus. A mixture of pure peat and sand as used for *Diapensia lapponica* has proven satisfactory. Propagation is by seed.

Schizocodons are suitable for the rock garden. They may be naturalized among Rhododendrons, as both require the same kind of soil and environment. If grown with Shortias they may interbreed.

Every member of the *Diapensia* family is a choice and very welcome subject for the rock garden, a distinction not equalled by many plant families.

A DAY ON MT. ANGELES

ALBERT M. SUTTON, SEATTLE, WASHINGTON

RATHER SUDDENLY we had decided on a hurried trip to the Olympic Mountains. Eileen, my garden-happy wife, and I had been trying to accomplish the impossible—to transform the raw clay bank at the rear of our tiny city property into a rock garden. As we labored with the unyielding clay on that Saturday in July our determination waned and our hearts grew weary. What we most needed was inspiration and where should we seek inspiration but in the mountains?

Although our home is near sea level in Seattle we are fortunate in having two mountain ranges so close that there is nothing unusual about our deciding at noon on Saturday to spend the following day in the high country. This time we chose Mt. Angeles, one of the northern bastions of the Olympics; Mt. Angeles with its feet in the cold waters of the Strait of Juan de Fuca and on its weathered brow a wreath of alpine flowers. We left home about one that Saturday afternoon and as the first stars appeared that evening we reached Port Angeles, a small city on the southern shore of the strait. Port Angeles looks northward across the water to Canada's Vancouver Island and has Mt. Angeles for a backdrop.



Schizocodon soldanelloides var. *ilicifolius*

The afternoon had been delightful with a ferry ride across Puget Sound to reach the Olympic Peninsula and a smooth drive over forested hills where several weeks earlier many miles of the highway had been bordered with a gorgeous display of our Washington state flower, *Rhododendron macrophyllum*. We had driven through placid valleys where dairy herds grazed and past Discovery Bay where in 1792 Archibald Menzies found joy as the first naturalist to explore this new botanical paradise. During the entire trip we had been seldom out of sight of snow peaks, either in the Cascades or the Olympics, or of water; Puget Sound, Hood Canal, Discovery Bay, streams, lakes and finally the Strait of Juan de Fuca.

We spent the night at Port Angeles, made a pre-dawn start and by nine had reached Heather Park after a seven mile drive to Heart o' the Hills, where we left the car, and a five mile hike up the trail. This was a record for us as always before trailside allurements had delayed us. This time Eileen, my trail-happy wife, and I had made but few stops. Our pace was fast and the trail steep and once when racing hearts and lack of breath forced us to stop it was at the exact spot where we could admire the cascades of twin flowers, *Linnaea borealis* var. *longiflora*, as they tumbled in thousands down the slope on the upper side of the trail, at eye level, pouring over fallen tree trunks like pink waves in a sea of green. And the exquisite fragrance, the mingled essence of all that is wild and refined and free and heavenly; who is bold enough, having experienced this lovely sensation, to attempt its description?

When a chickadee family frolicked through a thicket of vine maple, *Acer circinatum*, we merely slowed our pace to watch their play and when from afar came the sweet tinkling notes of a varied thrush's morning song we kept right on plodding up the trail. No woodland flower, no sweet-warbling bird, no breath-taking vista had stopped us. But for all our rush we found Heather Park shrouded in heavy mist which prevented us from seeing the wealth of mountain flowers we knew were there. Heather Park is a high-flung subalpine meadow nestled in the angle of two lofty ridges, the high points of which rejoice in the unimaginative names of First and Second Peaks.

It was on First Peak that we wished to start our exploration but the ground-hugging fog made our progress up the steepening meadow quite difficult until we stumbled into one of the several trails, deep-cut in the mountain sward, that led haphazardly to the meadow's upper rim which forms a short saddle connecting the two peaks. The elusive fragrance of *Valeriana sitchensis* reminded us that our uptiled grassy meadow was sprinkled with many of our best-loved mountain flowers; *Phlox diffusa*, *Luetkea pectinata*, *Salix nivalis*, *Pedicularis contorta*, *Veronica Gusickii*, lupines, violets, buttercups, paintbrush and that Compositae whose name carries one to those sea-girt isles where the trade winds blow—*Luina hypoleuca*.

As the trail leveled we blundered into a cluster of rough rocks and we knew with relief that we had reached the rim very close to the final upthrust of First Peak. While we were resting there the sun pointed his bright finger at us and to our joy we found ourselves in the middle of a small area bathed in warm sunlight. It was as though Old Sol, conscious that alien creatures were scurrying about beneath the misty veil that guarded the mountain's secrets, had burned a hole in the protecting clouds to unmask possible nefarious doings, such as the theft of precious alpine plants, for Mt. Angeles is a game and plant refuge. Finding only "humans", sans trowel or pick or stolen plants, he seemed satisfied and slowly shifted the lovely cone of light away from us.

We followed the moving light over the rim and down the gray talus where the slope was yet gentle and the rocky debris light and loose. There I almost stepped on a grayling plant whose purple funnellform flowers looked up at me in dismay. I kneeled to examine the tiny plant to assure it that I meant no harm. Perhaps it was my imagination or some trick of the mist-filtered light but I was certain that some of the angry purple had faded and that the flowers had become a clear violet which contrasted well with the gray foliage: This little plant I recognized as *Collomia Larsenii* (*Gilia Larsenii*).

Eileen, my crag-happy wife, and I had decided to keep close together because of the danger of returning fog so when I looked up from my *Collomia* she was nowhere to be seen, of course. A rapid survey of the visible landscape revealed a flash of color near the top of a large weathered rock that jutted from the talus. Just below the top of the rock was a foot-square shelf that had been homesteaded by a doughty little shrub, *Potentilla fruticosa*. The entire shelf was utilized by the shrub, and its silvery-leaved branches overflowed into space. It was ablaze with large, clean yellow flowers and how it could find the sustenance with which to support itself in health and happiness in that barren spot was little short of miraculous. And there was Eileen, in her yellow sweater and green slacks, spread-eagled on the face of that rough, gray-brown rock directly below the golden shrub, her face uplifted to it and her auburn hair astir in the faint breeze—a picture I will carry with me always.

As Eileen scrambled down from her rock the spotlight of the sun moved slowly down the western slope of the rim and expanded the lighted area until we looked down into a deep chasm, down on the sunlit upper surface of a stub-

born cloud that would not yield to the sun's blandishments and so hid from our startled view the bottom of that awful rift with its tortured rocks and beetling cliffs that had been moulded and set in the agony of mountain-forming turmoil. And though our eyes could not pierce the opaque wall of fog that stood at bay beyond the chasm's farther rim, we knew that behind its protecting shield there sulked a monstrous peak of riven rock, jagged and ominous—Third Peak, cold and silent and the farthest and the highest part of Mt. Angeles, nearly 7000 feet high. It is well to remember that 7000 feet in the Olympics is equivalent to a much higher altitude in Colorado's Rockies or California's Sierras.

Turning away from the chasm we gave our attention to the craggy rocks behind us that rose in irregular groups to form First Peak and as we did so the sunshine faded and again we were in fog, thinner this time and diffused with light. Almost at once we found *Phacelia sericea*, a lovely plant of lavender and lace, with rosetted leaves finely cut and softly gray and above them airy spikes of campanulate flowers on four inch stems, their charm enhanced by exerted stamens with large yellow anthers. Everywhere in the loose rock, so numerous that it was difficult to keep from stepping on them, were little onions, *Allium crenulatum*, a bit past their happy time as flowers but robust and flavorful as to bulbs.

On the upslope side of one of the larger crags we found several crannies, each adorned with its own special alpine tenant. It was as though some conscientious gardener had been at work there. I would not have been too surprised to have seen neat labels beside each plant. In one of the upper pockets, looking forlorn and worried in the dampness, was *Potentilla villosa*, a sturdy little fellow, his silken robes gathered closely about him, silver gray and soft, with a few yellow blossoms but half awake in the thin light. We enjoy this *Potentilla* in our garden where we have it in poor soil and though it grumps around during our wet winters it seems to take no harm and is not averse to seeding itself. The same crag sheltered dainty *Saxifraga caespitosa* and *Erigeron trifidus* in a double niche and in other chinks were *Oxyria digyna* and the little alpine lady fern, *Athyrium americanum*.

We worked our way up a narrow draw between two of the crumbling rock formations and found *Viola Flettii* blooming alone; no other flower, no tuft of grass, no fern; just one small indomitable plant alone in a barren world of rock. Its one blossom, with an eye of gold, was held well above a cluster of broadly reniform leaves like a dark rose banner held aloft and protected by a loyal honor guard bearing shields of bronzy-green; a proud banner with a golden device unfurled in a hostile land; the unsullied ensign of an endemic plant, alone and unafraid and in all ways beautiful. To think that such beauty and such dauntlessness can exist a moment so fleeting and in its passing leave no trace. No trace unless some wanderer happens by and stopping to marvel stores in his mind an image and in his heart a song which will be his to enjoy for the rest of time.

Several years before, I had found on Third Peak a noble plant of this fine violet with eleven perfect flowers in full bloom and several buds as yet unfurled, all in the warm light of a late afternoon sun. This was an unexpected thrill but it is the brave violet with its single flower seen in the thin light of a misty day that will live in my memory as the years roll on.

Eileen, my color-happy wife, and I were busy discussing the color of *V. Flettii*, on which we do not agree, and shivering in the cold fog when we became aware of light music, faint, eerie, more felt than heard. It had an instant and a depressing effect on us until we realized that it was the coming of the wind with its mournful song among the pinnacles. The wind that had come to release us from our fog-bound prison, to dissipate the vaporous walls that held us.

Soon we were in full and glorious sunshine which we knew would be with us the rest of the day.

In our new-found freedom we scampered about the rough landscape and found many things to interest us. The curving base of one rock was flounced with a colony of *Heuchera racemosa* and another decorated with the blue and white of *Polemonium pilosum* and *Arenaria verna* and spangled with numerous patches of orange lichen. The loveliest rock was up near the top of First Peak. Its nearly perpendicular surface was quite smooth and crisscrossed with fine seams and each seam was embroidered with *Campanula Piperi* which grows crowded together along the length of the seam making a single strand of thick spatulate leaves, glossy and toothed, the whole garland studded with bright blue stars an inch or more across, pinned close to the leaves. This *Campanula* is difficult in the rock garden as the voracious slugs crave it exceedingly and will pass up their favorite bait to get to it.

This rock had other decorations on the rougher surfaces where *Spiraea Hendersoni* (*Petrophytum Hendersoni*) had found its home. These are dwarf cespitose woody plants with prostrate branchlets. The leaves are crowded, nearly spatulate and entire and the flowers form dense white spikes that turn brown later and then persist. It is a shy bloomer in the rock garden but the plant is attractive enough without any flowers.

When the sun was high we realized that it had been a long time since breakfast so we decided to hurry over to Second Peak and eat our lunch on the flat top of one of the leaning pinnacles that make the peak distinctive. As we ran across the saddle and up the slope toward the base of the pinnacles that saw-toothed the skyline, we were careful not to step on the bright patches of *Douglasia laevigata* with their short umbels of dainty pink flowers or on the gray mats with the diadems of blue that *Lupinus Lyallii* spreads out under the open sky for the heavens to envy.

Just before we reached the pinnacle we passed through a small grove margin of ghost trees, the unyielding remnant of that vast host of conifers which conquered the lower slopes of Mt. Angeles in the long ago and sweeping upward through the slow centuries sent its intrepid vanguard to storm the very peaks themselves. The conifers, driven by their irresistible urge to possess the earth, pressed the attack. The peaks, glorying in their age-old communion with sun and sky and the moving air about them, resisted. Through the endless years the battle raged. Only broken remnants of the alpine tree battalions survived the shock of that long and fierce encounter and were able to maintain precarious roothold on the embattled mountain's last ramparts. There they paused to regain their strength for a final assault. But they found it impossible to advance against the terrible weapons with which the mountain defended itself. Arctic cold, punishing gales, heavy snowfall and an insufficiency of sustaining soil held them immobile. Advance they could not nor would they retreat.

Enduring, holding the ground they had won, holding it through the centuries until the very legions whose attack they spearheaded unwillingly contributed to their ultimate defeat. The peaks had found a new and an unexpected ally. An ally capable of striking from the rear. Fire! Roaring blasting flames starting on the seaward flanks of the mountain where early settlers cleared their land with fire and were careless. Fire, out of control, spreading hungrily into the virgin timber on the wings of a rising wind and raging up the long green ridges in leaping flames and billowing smoke. In its wake there was only black and smouldering chaos.

Like a terrible pestilence the roaring inferno ravaged the sylvan army, each tree warrior lending its substance for the destruction of its comrade until the outposts themselves felt the searing breath of death. Yet in death these tree

heroes would not yield nor would they fall to earth to enrich the meager soil, in slow time, with their decaying bodies. To this day their ghostly ranks stand fast, their gnarled limbs pointing upward to the heights. All hope of victory gone, yet there they stand, green no longer, no longer black, but white they stand, shining white for their everlasting faithfulness, white monuments to those leafy warriors whose devotion to duty could well be an inspiration to mortal man.

To reach the top of the pinnacle to keep our luncheon engagement we inched our way up a narrow chimney that was not meant for man's endeavor. But we knew in this steep place there dwelt a small plant of *Saxifraga oppositifolia* and it was our hope to surprise it in bloom. No luck. When we finally reached the flat top of the pinnacle we were very happy to rest awhile and then sitting on the bare rock with our legs dangling in space we ate our sandwiches. In every direction the stupendous land and seascape spread to the far horizon. West and southwestward towered the main bulwark of the Olympics, snow-laden, dominated by many-peaked Mt. Olympus. Lesser peaks were all around us and above the nearest a bald eagle soared in rising spirals.

The northern horizon was filled with the bulk of Vancouver Island and we could watch the moving crests of the waves as they broke in curving lines of silver on the island shore a dozen miles away. Above the shining waters of the strait little vagrant clouds were sailing their slow wind-driven course at altitudes lower than ours so that we looked down on them. Eastward, again across water, we beheld snowy Mt. Baker and southward along the Cascade crest Glacier Peak held its icy rivers against the sky.

Eileen, my panorama-loving wife, wanted to stay and watch the sunset although sunset was hours away. I gently vetoed the idea and persuaded her that it would be worth while to return to First Peak and explore the long ridge that starts with the peak and points directly at Port Angeles. The ridge runs north and south, the eastern slope dropping easily into Heather Park and the western edge falling away in great cliffs.

So we spent the long afternoon in a wild scramble among the confused mass of rocks, cliffs, crags, wind-clipped conifer thickets and miniature meadows that make up the ridge. We paid homage to many fine plants as we clambered and slid and jumped and climbed; *Draba novolympica*, *Senecio Websteri*, *Penstemon Menziesii*, *Castilleja oreopola*, *Smelowskia calycina*, *Crepis nana* and several other of the Compositae which we were unable to identify with any degree of certainty.

When we were about to start our reluctant way down into Heather Park on the homeward trail, Eileen, my cliff-happy wife, suggested that we take one last look from the edge of the ridge where the drop is vertical. We stood there on the cliff top looking to the northwest over the water and sadness came to us as it always does when we must turn our backs on the mountains and on so much that is the very breath of life to us. As we turned to go I noticed a narrow space between two huge rocks a bit below us, a kind of window that looked to the north instead of the west due to a sharp angled recess in the cliff face. I squeezed through the opening and looked straight down on the tree-tops hundreds of feet below. A glance to the left and what I saw there I could scarcely believe. About six feet below was a perfect hanging garden tucked away in an angle of the cliff where only the mid-morning sun could reach and where during the long winters the bitter wind could not blow away the deep blanket of snow.

Natural steps in the rock led me down to the little shelf where it was safe enough as long as a firm grasp was kept on the sturdy trunk of the largest tree that grew there, a two-foot *Abies lasiocarpa* that must have been over fifty years old though its trunk was barely more than an inch in diameter. On the tiny

ledge there was not room for two at the same time so Eileen and I took turns holding on to the small fir while we absorbed the exquisite details of this smallest and surely most perfect of all natural gardens. The choicest plants of Mt. Angeles were flourishing there in complete harmony and we speculated as to the identity of the artist who had planned and planted such a masterpiece.

In that beautiful place it was easy to imagine mountain sprites scampering about the alpine meadows and scurrying among the crumbling crags, searching out the choicest seeds of the finest plants and bringing them to this cliff-side paradise to lay them in their earthy bed to await the coming of the snow. Easy to imagine that some of those seeds were gathered from *Douglasia* blossoms of purest pink and laid in the cool soil of this idyllic spot on a night so fair that the night wind, awed by the soft beauty of the moonlit mountain, hushed its boisterous song to a lullaby that put the little seeds to sleep and set them to dreaming of the lovely morning when they would awaken and make bright the garden with their pink glory. Easy to imagine the first snow coming to tuck in the sleeping seeds for their long slumber through the arctic winter and then summer and the northering sun working their magic and the little garden bursting into glad life and color.

Eileen, my perfectly happy wife, and I, alien creatures from the lowlands, were grateful to have been led to this beautiful place at the very height of its perfect flowering. And of all the enchanting alpine plants that smiled up at us the fairest and the purest was *Douglasia laevigata*.

The sun, far down in the western sky, cast deep shadows over the garden hanging there on the cliff and the gaily colored blossoms sank slowly in'o the background and their brightness faded. But the *Douglasias* shone forth in brilliance and splendor, reflecting all of the stray light that yet lingered in that shadowy place for their flowers were white. What luck to find white *Douglasias*! I wonder if there are many who have seen them in their native state? And I wonder, too, what those responsible for this lovely garden, mountain sprite or not, thought when they saw the mischievous trick Nature had played on them? I like to think that they were happy and so proud of their garden that they had wished to share it with others and so by devious ways unknown to mortals they had led Eileen and me to our happiest experience on Mt. Angeles.

TRAILING OR SNOWY PHLOX

STEPHEN F. HAMBLIN, LEXINGTON, MASSACHUSETTS

FOR THE ROCK GARDEN IN MAY why is not more use made of *Phlox nivalis*, native from Virginia to Texas? It is similar in many ways to *P. subulata*, and formerly considered as but a variety. But in other ways it is very different, a taller, more erect plant, in large creeping mats, scarcely rooting as it goes. The stems are quite woody and the larger narrow leaves evergreen, much larger than those of *P. subulata*, not as harsh prickly to the touch, yet when not in bloom a very robust form of Moss Phlox.

The flowers are much larger, as large as the flowers of *P. paniculata* of summer, in a large loose cluster, the petals quite rounded and shallow notched. So numerous are the flowers that the foliage is not visible, an even mat of color. The original color may have been white, but pink, rose and red forms are now known—but no magenta or purple. There is much variation in seedlings, but the colors are always clearly pink, and some perhaps are hybrids with Moss Phlox, the flowers smaller and the petals deeply cut. It rarely self-sows, so there are no unwanted magenta seedlings, as with Moss Phlox.

While it comes into bloom with the first flowers on Moss Phlox, it carries on for two weeks more, well into June in New England. For long and profuse bloom it is decidedly the best dwarf Phlox. It is wholly hardy in central New England, though native south of zero winters, and it grows rapidly to clumps two feet across. Some forms have been named, as Camla (deep rose) and Dixie (deep red), this latter less vigorous and perhaps less hardy.

This species thrives in heat and sun, as does Moss Phlox. It is certainly different, and far easier to grow than many other dwarf mat-forming species.

SEVERAL SANDWORTS

RICHARD DARLING, NATICK, MASSACHUSETTS

DESCRPTIVE BOTANY according to the system of Engler and Prantl is arranged as nearly as possible upon an evolutionary scheme from the primitive (with more simple structures) to the modern (with modified or more complex structures). Across this schema may be drawn an imaginary line dividing the families with the flowers purely functional, and largely wind-pollinated, from the families with the flowers modified by the development of colorful corollas, scent and nectar glands, for the attraction of various species of cross-pollinating insects.

This imaginary line cuts squarely across the Caryophyllaceae, so that Paronychia and Herniaria are frequently separated therefrom and placed in Illecebraceae. We may assume therefore that the chickweed kindred are very old on the geologic time-scale, far more so probably than our rock garden aristocrats in Primula, Gentiana, and Campanula. It must be emphasized that considerable evolution has taken place since the creation of the first proto-chickweed, both in the family as a whole and even within the genera and species. As a result the family is characterized by the existence of nearly countless forms very close to others, but indisputably different. No two authorities are in wholehearted agreement on even the nomenclature.

This is clearly illustrated in the genus *Arenaria* which has been variously split into the genera *Alsine* (now discarded), *Minuartia*, *Moehringia*, *Ammodenia*, in addition to *Arenaria*. I find it more convenient to think of these genera as sections of *Arenaria*, even as *Azalea* is a section of *Rhododendron*. After all, the possession of a strophiole at the hilum of the seed is a pretty small difference (*Moehringia*). For rock garden purposes the sections *Arenaria* and *Alsine* offer the most species.

The most usual *Arenaria* perhaps is *A. graminifolia* which looks for all the world like a tuft of fescue when not in bloom, with long, filiform rather lax leaves and a very short woody caudex. The erect, unbranched bloom stalks are long and often weak, bearing a cluster of tiny white flowers in the heat of summer. *A. Biebersteini*, *Koriniana*, *tmolea*, of gardens, and many others are variations close to *graminifolia*, and unfortunately in many cases identical. *A. Steveniana*, and *A. dawsonensis* are shorter-leaved species. The latter, from Yukon territory, characteristically has the dried leaves of yesteryear, persistent, wrapped about the base of the plant.

When I first saw *Arenaria montana* in bloom I gasped with admiration. Here is a plant with inch-wide "buttercups" of pure white over a mound of deep green linear-oblong foliage 4-5 inches high, and a foot or more across. This blooms in May-June, and is really showy. The flowers are solitary on rather short pedicels. *A. montana* is a plant of "woods and heaths" a bit more difficult to tame than the foregoing kinds. *A. grandiflora* is somewhat like it, less creep-

ing, the flowers often in 2's and 3's, and with shorter and more leathery leaves. From the Alps.

Many of the species have very narrow awl-like or linear leaves, and among these are my favorites, the species *A. laricifolia* and *A. saianensis*. These plants are mat-forming and much-branched; the leaves of the latter are more rigid and straighter than the former. The capsules also differ in splitting into three shards when ripe instead of six. This distinguishes the section *Alsine* (or as a genus, *Minuartia*). Other delightful kinds, reminiscent of larch and hemlock are *A. recurva*, *A. Bauhinorum* (alias *capillacea*, *liniflora*), *A. sedoides*, *A. saxatilis*, *A. juniperina*, and several more. The flowers are always white. They differ largely in habit and foliage characters, though some are technically *Alsines* and the others *Arenarias*. They tend to be somewhat shrubby at the base, and nearly all are practically evergreen. They are montane or alpine species.

A common plant in commerce is *Arenaria caespitosa*. This is properly *A. verna*, variety *caespitosa*, a dense mat-former with numerous barren shoots, grass-green, leaves narrow with blunt tips, bearing few-flowered bloom stalks, very dwarf. *Sagina procumbens* is often sold for this by mistake. Another variety, *rubella*, much the same as *verna*, is native to mountains of Canada and Eastern United States. The Balkan species, *A. Arduini* is close to this.

Annuals and "bi-annuals" are not uncommon in *Arenaria*. These vary in delightfulness: *serpyllifolia* is a poor weedy chickweed, *groenlandica* (much slighter and more difficult to keep) is a real charmer. The latter has the general effect of a very young tuft of fescue with an array of delicate white stars close above, both leaves and flower stems erect. It is cute, but I don't know of anyone who can keep it naturalized, year in and year out, due to our hot dry summer weather.

Sea purslane, *A. peploides* (*Ammodenia*) is more of a curiosity than a beauty, but its fleshy leaves are nice in a collection, where it represents a third section of *Arenaria*. It is not in the trade, but haunts our sandy saline shores. Far better is *Arenaria caroliniana*, also not widely cultivated, and it would be a worthwhile deed (the advice is free) for a southern member to contribute its seeds to the Seed Exchange. If Farrer were alive I am sure that he would approve of our waking up to the beauties of native material.

Arenaria, the Sandwort, of venerable lineage, always rather low and humble, is nevertheless impressive in its adaptation to hostile arctic-alpine conditions, and is of use in horticulture only on the rock garden, where its evergreen foliage and neutral white flowers help set off other plants with more "downstage" personalities.

ROUND ROBINS AND HOW THEY WORK

GRACE F. BABB, PORTLAND, MAINE

DO YOU know how Round Robins work?

Round Robins are not at all a new idea. In fact, there are robins which were started ten and twenty and more years ago and still have many of their original members. The ARGS robins have been active for the past several years, begun about the time robins became a national pastime, sponsored by a popular garden magazine. There are three ARGS robins now. Many other garden societies make use of round robins too. However, many people still have little idea of just how robins operate, or what is their purpose, and the benefits to be gained.

Reports from the more recently formed New England ARGS robin have renewed interest, and this account is written for gardeners who would like more information. In a nutshell, a round robin is a packet of letters, including one from each member of the robin, which goes around the complete circle of all the members in each "round" before returning to its starting place.

In more detail:— One person serves as director with the responsibility of seeing that the robin gives the most possible value to the members. A mailing list is made up which will circle the group in the quickest, most direct route. The director then writes a letter of introduction to start off the first round, telling about her garden and any special interests, and a bit about herself. The next member adds a similar letter and sends both to the next on the list, and so on until the whole packet gets back to the director. The previous letter is taken out of the robin and a new one written by each one in turn, so that each "round" will contain a letter from each of the group, with all kinds of garden news and information, and questions asked and answered. Parts of each letter will probably be general in character while some paragraphs may be more personal and addressed to individual members by name.

Sometimes a director has the old letters sent to her to keep on file. Members are also expected to send word to the director when the robin is sent to the following member, to help her keep track of it. A time limit is set for reading and answering the robin which may vary from four days to a week, depending on the number of members and the distance to be covered. The ideal time for a complete round is from two to three months, and membership is usually limited to ten or twelve members. A too-large robin often leads to "floral indigestion", and will be too slow going around, so that members begin to lose interest.

All who have had experience with round robins know that there are two important requirements to be met by the members if the robin is to be most successful and valuable. First, each member must be able to write easily and informatively about the subject, and second, each one must do his part in the robin promptly and abide by the time limit. These two points often make it impracticable for some of the best gardeners to join a robin. Some simply do not have the liking nor the aptitude for writing long newsy letters. Others do not have the time, or are away from home frequently, with the sad result that robins are mislaid for weeks or months, or completely lost, or at best spend long periods following a member here and there, while the others in the group are left to wait and wonder.

The round robins offer many benefits to their members and to the Society which sponsors them. Much of the valuable cultural information can be shared with the whole Society by reports in the Bulletins. Garden visits are sure to be planned both for the group as a whole and between individuals, and plant and seed exchanges are another sure result. This leads to much more widespread cultivation of the rare and unusual plants, and to an enlarged and more valuable Seed Exchange for the Society. Collecting trips may also be planned with the same results. Also invaluable are the closer personal friendships formed among the robin members, all of which can only result in a stronger Society. It has been suggested that round robin meetings should be open to the entire regional group, but this would seldom be practicable. Most home gardeners find it much easier to entertain a small group of ten or twelve persons than a much larger one. Collecting trips must also be limited usually for the safety of the group. A round robin is only one of the several integral parts of the ARGS, each of which holds its own meetings and activities while working for the benefit of the whole Society.

Several invitations have been issued in the Bulletins to form regional robins, but comparatively few members have taken advantage of the chance. Some of the most successful robins have been organized from gardeners who were already acquainted and could vouch for each other as good robin members. If more than one common interest is found, it helps make a congenial and enthusiastic group, but is not at all necessary, of course. Most robins will need a "shake-down" period before becoming a closely allied group. All ARGS members who would enjoy taking part in a round robin are again cordially invited to write Mrs. Hansell or their own regional chairman.

POTENTILLA MEGALANTHA

STEPHEN F. HAMBLIN, LEXINGTON, MASSACHUSETTS

MANY OF THE *Potentillas* are weedy or too tall for the true rock garden. Hidden away in a long list of species, under the name of "megalantha", which apparently means "big-flower", is a species from Japan, rather rarely seen. It stands, in summer growth, about a foot tall. The basal leaves are 3-parted, much as the Garden Strawberry in size, dark green, thick, very hairy and quite large for a *Potentilla*.

The stems are little branches (no runners), but many stems arise from a clump. The real surprise is the size of the flower, nearly an inch across and cup-shaped, like an over-size Buttercup. In color it is a deep yellow, with five orange spots near the center of the flower, like a Strawberry plant bearing smaller California-poppy flowers. The bloom is from early May (in New England) until late June, each flower lasting several days.

It is apparently very hardy, long lived and easily produced from seed. It could be likened to a small-flowered *Trollius* as to color and form of flower. So striking a species should be more widely known, for its size of flower and orange-yellow color are unusual. It is far more hardy and vigorous than the red-and-yellow species of the Himalayas and their modern garden hybrids. It is far easier to grow in a sunny spot than the yellow *Anemones* of the *Pulsatilla* group, and it withstands well both summer heat and winter cold. Seed is listed in a few botanic gardens abroad, but rarely is it on sale by American dealers. My present plants are my second contact with the species, and I regard it as one of the most valuable in a large genus.

PERSONAL ANNUAL REPORT

DORETTA KLABER, QUAKERTOWN, PENNSYLVANIA

MORE FUN WITH SEEDS! Last year I received some seeds through the Exchange. One was labeled "Erodium?" This, for the information of the contributor, turned out to be *Erinus alpinus*, and its small mats and lavender flowers survived the winter better than some of the forms I have grown. It likes a bit of shade. I also asked for and received seeds of *Silene Elizabethae*, as I wanted to check plants I had grown by that name from seeds of Thompson & Morgan. They look as though they are going to be the same thing, tall *Lychnis viscaria* with its magenta-red flowers instead of the dwarf *Silene*, which should be listed as *Melandryum Elizabethae*, and should be a beauty.

Another surprise came from seed labeled *Sisyrinchium grandiflorum album* (also from T&M). I thought the seedlings must have become mixed with some *Iris pumila*, since the plants came up looking like typical seedlings of the latter. I was waiting for the Iris to bloom, but couldn't believe my eyes when it did! Instead of Iris flowers, it has creamy yellow six-petaled saucers winding around the stem, which grows a foot or more high. Research established it as *Sisyrinchium striatum* (yes, an Irid), spoken of disparagingly by Farrer, but to my eye a most artistic and interesting acquisition. I still want the white, in fact both, grandifloras, but I do not regret having this.

Aethionema Theodorum did not prove as hardy as many others I have grown, but its rich pink flowers were a deeper color than most, and it will be given a warm spot to encourage better bloom another year. *Androsace sempervivoides* is a beauty, a greener rosette and deeper pink flowers than *sarmentosa*, with the same pleasant habit of making runners. *Primula Sieboldii* bloomed with me for the first time, a particularly lovely form of it, having white on the inside and deep pink on the outside of the petals. Absolutely hardy here. *Alyssum idaeum* is far and away the loveliest Alyssum I have grown. Its low growth, silvery delicate leaves, and crowns of soft yellow flowers are outstanding.

Only one plant of *Gentiana angustifolia* bloomed this spring with one large, unbelievably blue trumpet, while *G. verna* and *G. acaulis* didn't flower at all. What is the matter with the spring gentians? The summer ones bloom their heads off here, all the septemfida tribe, decumbens group, etc., and are the answer to our prayers for lovely flowers in midsummer. I have many healthy seedlings of the fall-blooming gentians—Farreri, Veitchiorum, etc., and am waiting breathlessly for them to flower.

Scabiosa scabra is not very rock-gardeny in appearance, but has pleasant flowers on foot-high plants that are hardy. The beauty so far among those I've tried is the one sometimes called *Pteroccephalus Parnassi*, which has three-inch, finely scalloped gray foliage and pink scabious flowers just topping it. *Iris tenax* is lovely, 8 to 10 inches high, with large raspberry-pink flowers. *Digitalis dubia*, soft gray leaves and deep pink flowers, only 10 inches high.

Iberis saxatilis doesn't make the show the other candytufts do, but is a delightful creeper with yew-like foliage. *Asperula hirta* has white crosses instead of the pink Farrer describes, a dainty tiny plant, with soft, almost furry foliage, and seems happy in the wall.

For years I have been trying to grow *Campanula Sartorii*. It came up from seed, lived over the winter, but never bloomed. Last year I stuck one of the seedlings in a rotted spot of a big old beam which edges my gentian bed. It proceeded to take hold, and this spring the little thing is flowering, a charming plant. The tiny branches with velvety leaves cling to the outlines of its home, and the perfect bells, clapper and all, like small thimbles with the bottom cut and bent back, are just off white—a mere whiff of lavender.

Some new plants here that I did not grow from seed: *Mertensia longiflora*, three inches of breathtaking deep blue flowers; *Aquilegia Jonesii*, the roots of which lived over the winter with no trouble at all. It doesn't bloom until July, but the low iridescent foliage is giving almost enough pleasure before the flowers appear; *Tiarella Wherryi*, deeply lobed form, which Dr. Wherry loaned me so we could get seeds for the Society! It is an exquisite thing, and not done full justice by his article in the October 1952 Bulletin. The creamy flower heads have coral buds at the top, and every stamen is tipped with a coral dot. It was much admired in the garden, and I do have some seed saved. A new crop of flowers is now coming up. *Phlox stolonifera grandiflora* (from the same source) is also a beauty, with flowers even more attractive than *P. divaricata*, a richer lavender and slightly larger.

This year I put in 250 packets of seed in late January, and have been madly transplanting since early April, primroses by the dozens, gentians, Delphinium species, Geraniums, Iris, etc. How can I wait until another spring?

LETTERS TO THE EDITOR

Portland, Oregon

Reading about the albino form of *Penstemon hirsutus*, I thought perhaps you would like to know of two other kinds.

The albino form of *P. rupicola* (I stick to the old name) came from a garden in Victoria, B. C. Two large plants of the type grew in a tangled mass, and one year a white flower appeared; whether it was a seedling or a bud sport, no one could tell because the stems were so intertwined. The owner, Mrs. Biggerstaff Wilson, allowed the nurserymen to propagate it, and it has proved to be a very easy, accommodating plant, rather gray leaves, flowers not quite white, very pale cream. It comes true from seed, as I have learned by the seeds I sent to England, and is very floriferous.

The other is a white form of *P. Menziesiana* (*P. Menziesii?*—ED.) found on Vancouver Island, shining green leaves, pure white flowers—a lovely thing, not as floriferous as the first. Someone with more patience than I have should try to cross them!

I have always been interested in albinos, but those two and the white form of *Sisyrinchium* are the only ones that have grown well with me. I particularly mourn the pure white *Lupinus Lyallii*, really a beautiful thing with its silvery gray leaves and snow-white flowers, found near the "Three Sisters" in southern Oregon. Strange, on that same day we found an almost black Delphinium with beautiful large flowers. At that time I had no dry area in which to grow them—that is what they need, a baking in summer. The Penstemons don't seem to care.

The albino I most truly regret digging up was a *Primula Cusickiana*; how I wish I had left it and the rose-colored form to flourish where they grew.

RAE S. BERRY (Mrs. A. C. U. Berry)

Desborough, Northants, England

I have just received the April number of the Bulletin, and was interested in the note on the Seed Exchange concerning *Scilla "Tubergiana"*. This should surely be *S. Tubergeniana*, as it is named after the famous Dutch bulb firm of Van Tubergen. Either your contributor is in error or else the behavior of this lovely little bulb is very different in the States from what it is in England. Here it is quite the earliest of the Scillas to bloom, easily beating the better known *S. sibirica*, and appearing in early March or even February. At the present time even the foliage has died away, so that it is very surprising if early June is its flowering time in America.

It is very prolific with its pale blue wide open blooms which appear at the same time as the foliage. Maybe its very early flowering here accounts for the fact that it has never set seed with me, although the snowdrops that bloom at the same time do so. However it makes up for this by the freedom with which it increases by division.

Whilst not exactly rare, it is not to be found in the average bulb catalogue. My own plants have a rather strange history. I was being shown over the garden of that fine plantsman, the late Mr. Taylor, one Easter, and in his potting shed was a little heap of withered bulbs that had been overlooked during the autumn

planting. He offered them to me, telling me they were a fairly new introduction. I doubted whether there was any life in them, but took them and planted them. Nothing appeared the next season, but the second they pushed through, having been dormant for two whole seasons. From these few withered specimens has come the flourishing colony I now have. It looks fine interplanted with some of the larger snowdrops, such as *Galanthus plicatus*.

I wonder whether I can extend an invitation to any member of the Society who is in England to call and see my collection. My garden is not large, but the collection of alpine is. There are several thousand species including bulbs, many not in commerce, so that anyone fond of alpine will be sure to find something of interest. Anyone traveling from London to the north by either rail or road can pass through Kettering, which is only six miles from Desborough.

R. GINNS

The editor accepts responsibility for the mis-spelling of *Scilla Tubergeniana*. Anyone who has read proof after 2 A.M. will understand.

LOOKING TOWARD THE SEED EXCHANGE

Now is the time to collect those early ripening seeds which if neglected will fall and disappear. Many kinds must be caught within a few days of ripening, or they will be made off with by birds or ants. How many of us have ever even glimpsed the white berry-like fruits of *Epigaea repens*, which are said to be carried away by ants as soon as the husks open to expose them? A list of such quickly disappearing seeds would be interesting to compile, and would certainly include many of the species most desired for our Exchange.

The following additions to the Wish List published in our April issue include some items a little large for the rock garden, but these are asked for by a member who has made many important contributions to the Exchange, and who may be at a loss where else to obtain these species. Remember that this is not a list of seeds in hand, but of seeds hoped for.

Adlumia fungosa	Cyclamen (except neapolitanum)
Anemone canadensis	Dodecatheon (except Meadia)
Anemone quinquefolia	Epigaea repens
Azalea arborescens	Fritillaria varieties
Azalea calendulacea	Gentiana bellidifolia
Azalea nudiflora	Gentiana Farreri
Azalea (Loiseleuria) procumbens	Gentiana Lagodechiana
Bicuculla Cucullaria	Gentiana obtusifolia
Claytonia caroliniana	Gentiana pannonica
Clematis alpina alba	Gentiana saxosa
Clematis coccinea (luteola, parviflora)	Potentilla nitida
Clematis lanuginosa	Ramonda (except pyrenaica)
Clematis montana (grandiflora, rubens)	Ranunculus (dwarf varieties)
Clematis Viticella (caerulea, magnifica, tenuifolia)	Rhododendron (dwarf varieties)
	Sisyrinchium grandiflorum
	Sisyrinchium grandiflorum album
	Wularia grandiflora

From Dr. Edgar T. Wherry there has come a generous packet of *Collinsia verna*, blue-eyed Mary. It is Dr. Wherry's suggestion that this be distributed now instead of waiting for the winter Seed List, as it is a winter annual, and sowing should be done in summer. He adds, "It grows with *Phlox divaricata*

and Claytonias. The seed is simply mixed shallowly with some woodland litter, and forgotten. The flowers will appear all of a sudden next May." For a packet of *Collinsia verna*, send a self-addressed envelope to the Seed Exchange Director, 5 Castle Park, Rochester 20, New York.

WHAT MAKES A GOOD ROCK GARDEN

MARCEL LE PINIEC, BERGENFIELD, NEW JERSEY

(Now Jacksonville, Oregon)

(Reprinted by Permission from *Real Gardening Magazine*)

A SUCCESSFUL and satisfying rock garden doesn't just happen. You attain it through an understanding of certain basic principles of design and construction, plus a clear picture of the ultimate results which can be achieved in the particular spot where you plan to create it. It is the lack of such an understanding which has given us those monstrosities so filled with fantastic stones that a certain great authority was moved to remark that their makers should have taken up geology instead of horticulture.

For want of a better term, we can define a rock garden as a type of landscaping which, apart from its decorative value, is designed for the successful cultivation and display of diminutive plants, in a manner similar to that of their native haunts. Rock gardening is an art and should not be subjected to any set of inflexible rules, but be practiced according to the taste of each individual. You employ its basic principles only as a frame to ensure a solid structure on which the plastic and esthetic exterior is to be modeled.

Without proper planning the work becomes a venture—in this case, an undertaking that starts with a meaning and ends with none. Actually, the building of a rock garden has much in common with the building of a house. The site has to be chosen, the size determined by space, time and money, the materials selected and the purpose conceived clearly. "In fact," says Farrer, "the builder of a rockery must be, on his own different lines, as much as an architect as a planner of houses."

So first, consider the site. A natural slope, the side or sides of natural soil depressions, knolls of any size or a section of the property where the ground is uneven, away from big trees or their branches (unless you want a garden of native plants)—any of these will furnish a good setting. If your home is on a knoll or slope, there may be an opportunity either on the front, back or sides to simulate the face of a rock ledge on which the house was built. Should none of these advantages be found, ingenuity, circumstances and common-sense can guide you in selecting the garden's site, for remember that no hard-and-fast rule can be set.

It is all very well for some to say that rock gardens should be kept away from the house or anything formal, but what is to be done with a fifty by one-hundred-foot plot, half of which is taken up by the house? Forget rock gardening? Not by any means.

My own rock garden is placed in full view of the dining room windows with only a narrow planting of *Kalmia* and a three-foot gravel path separating it from the house. A planting of evergreen shrubs and conifers and some tall trees in the distance form a good background. Its proximity to the house is not incongruous. Rather it looks as if some rocks had been cleared away to make room for the house and paths. And I like it just this way!

Preferably, a rock garden should be placed where it will not be subjected to direct sunlight all day long. If this cannot be arranged, build it with a ridge running roughly east and west, thus giving you a northern slope on which the choicer alpinists requiring more coolness may be grown. In order of preference the best directions for it to face, in states where rainfall is spasmodic and heat is intense from late spring until fall, are northeast, north, northwest and southeast. It may be placed where tall trees growing at a distance cast light and open shade during the hottest part of the day.

It is easier to determine the size than it is to choose a site. Space and the ease with which materials can be obtained will in great measure regulate it. But beware of time—its volatile properties are tremendously increased in rock garden building! Allot yourself plenty of it, especially if you are temperamental.

Whether your site is natural or not, I cannot stress too strongly the necessity of a good background; without one, all the charm of your garden will be lost. Perhaps you know how annoying the constant sight of your neighbor's backyard can be. All right, blot it out—and any other undesired view.

In the composition of this background, I would give preference to native conifers, broadleaf evergreens and deciduous shrubs rather than to exotic types. Plant them carefully to avoid crowding and straight lines. Let the low and small-leaved varieties thrust wedges of growth out into the rock work, backed with taller and broader-leaved species to create a smooth and restful effect. Here and there, in suitable places, put small trees like dogwood, shadbush (*Amelanchier*) and so on to protect such species as are unable to sustain the effect of direct sunlight. The taller conifers can form the solid mass of the screen. If circumstances permit, keep away from maples, poplars or willows, for their roots will travel a hundred feet to ruin your rock garden.

The type of rocks to be used remains a question of choice. Well weathered, porous rocks such as limestones, sandstones and shales, often moss- and lichen-grown, are preferable to harder and heavier kinds like granite, gneisses or mineral rocks; they have well stratified faces, which help considerably in the execution of the work. The use of one kind throughout is essential to obtain a natural effect; and unless you are gifted with an unusual talent for color combinations, keep clear of multicolored rocks.

The size and shape of the rocks depends on the type and size of garden you intend to build. Avoid using too many small stones. A well proportioned lot of rocks should roughly consist of an approximately equal quantity of three sizes: large (as large and heavy as you and your help can handle with thick planks, rollers and crowbars), medium and comparatively small.

Before starting the actual building, by all means visit all available places where good examples are to be seen. If possible, study small natural rock formations, in particular those composed of the kind of rock you will use. Try to picture mentally which of these formations would suit your site best, and if your powers of visualization cannot be trusted, take camera snapshots of the composition from various angles.

The first step in the construction consists in outlining the area, removing or spading under all sod covering it. When this is done, insert upright stakes to indicate heights and where they are to be made. Then proceed with laying the foundation of loose, coarse material—stones, bricks, clinkers of any size—to within a foot or a foot and a half of the ultimate heights and reliefs, and within the same distance from the edge of the outline.

Throw soil over the whole pile and, with water pressure, wash in as much as it will take to fill all the interstices. You thus produce what may be called a drainage core which, while serving in that capacity, will fill the more important

role of supplying the roots of alpine plants with a cool run, so vital to their wellbeing. This foundation mound should then be covered with a layer of soil, a foot to a foot and a half thick. Use a good soil well supplied with organic matter, such as you would want for roses or fine vegetables. The addition of stone chips, while helpful in some cases, is not strictly necessary unless you want to grow the real moraine plants and fussy alpinists.

You may begin now to place the rocks. Start with the boldest effects, which incidentally will require the use of the heaviest rocks. Select the rock you want, study its conformation and place it so that the best side faces you. Prop it up in position at the proper angle and walk back a few paces to see if it will fit in the place where you think it belongs. This rehearsing on the ground level, away from the actual garden, will save you time and labor and should be repeated with every large rock. An entire detail consisting of several rocks may be studied thus and then moved up piecemeal to its permanent position.

Should the rocks be stratified in character, place every one so that these lines will run parallel to those of others throughout the whole garden. The illusion of distance, depth and height, and a sense of life as well, may be created by a slight inclination of the strata towards the point of approach. The same result may be obtained with other types of rocks by planning your design so that its rough outline would resemble the letter V resting on its side, the various planes or planting levels inclined towards the apex. Don't fret if it takes the whole day to set a few rocks in place—that really is a good start.

Before placing your rocks, scoop out the soil necessary to admit them, and then don't just drop them in place; be certain that they rest solidly. Wedge them at the base and be sure that they lean to conform with the slope; the angle depends on your design and need not be very great.

One final word; avoid using too much rock, simplicity and restraint in rock gardening are often the unsuspected companions of success, for remember that you are working for a pleasing, sane effect—not merely to produce a comfortable home for plants.

NEW ENGLAND REGIONAL GROUP

On May 16th Mrs. Clement Houghton opened her garden to the New England Group.

It was a beautiful day and the group enjoyed strolling leisurely along the woodland paths and beside the pond where azalea and dogwood were reflected in full spring glory. The light and shadow of the trees, the carpet of color on the ledge out-croppings and the superb tree peonies were much admired.

Refreshments were served on the verandah, and everyone, including two members from Maine, enjoyed Mrs. Houghton's gracious hospitality.

MIDDLE ATLANTIC GROUP

The Middle Atlantic Group held five meetings during the season. We covered everything from the flora of the pine barrens of New Jersey to that of the mountain tops of Japan.

The season was opened by a most interesting illustrated talk by our editor, Mr. Nearing, on "The New Jersey Pine Barrens and Its Flora." The overflow attendance attested the interest our members have developed in this most unusual section of our country.

Dr. Yoshikaru Matsumura of the Nikko Botanical Gardens in Japan gave a most interesting illustrated talk at the December meeting on the plants of the garden and Japanese alpinists. Apparently Japanese plants and trees have reached us in greater quantity than has occurred in the opposite direction.



Anemone blanda scythinica, a superior form of this choice species Photo by Donald F. Merrett

Again this year we are indebted to President Epstein for an illustrated talk on "Rock Gardens in Europe." His enthusiasm still remains at a very high level. Only we in the Middle Atlantic Group can appreciate the time and effort he devotes to the betterment of the society.

"Growing alpinas and Primulas in Southern Maine" was the subject of our February meeting given by Mrs. Harry Hayward. We who had shied away from Primulas took heart after listening to her very informative talk and seeing many of her favorites pictured in color.

Our annual luncheon was held during International Flower Show Week and we were most fortunate in having Mr. Raymond D. Wood, one of the East's outstanding amateur photographers, show us a hundred of his unusually beautiful color pictures of native flowers, and at the same time give us a few valuable pointers on the use of cameras. From what we learned, I expect to receive some excellent slides to be added to the Society's collection.

To all of the speakers who gave so willingly of their time and to the New York Horticultural Society for providing our meeting quarters, a thousand thanks.

E. L. TOTTEN, *Chairman*



PUTTOR

A NEW TYPE OF
Garden Tool
for EXPERTLY and
PRECISELY
Sowing Seeds and for
EFFECTIVELY and SAFELY
applying Plant Food

\$2.95 Postpaid
RETURN PRIVILEGE
WITH REFUND
WITHIN 10 DAYS

MANUFACTURED AND SOLD BY
ERIC ISCHINGER 86 AVIS STREET
ROCHESTER 15, N. Y.

HARDY NATIVE PLANTS

We carry one of the most complete stocks in America of Rare Trees, Shrubs, Broad-leaved Evergreens, Herbaceous Perennials and vines of the Blue Ridge Mountains. Send for your copy of our FREE catalog covering the most complete assortment of native plants available.

Gardens of the Blue Ridge

E. C. ROBBINS

Box 8, McDowell County
Ashford, North Carolina

Mayfair NURSERIES

ROCK PLANT SPECIALISTS

Box 87

Hillsdale, N. J.

Offers You A Long List of Choice and Rare

ROCK PLANTS AND ALPINES

FOR BETTER PLANTS AND SAFER TRANSPLANTING

Our highly descriptive and illustrated catalog contains hundreds of noteworthy plants—free to members of the American Rock Garden Society, 25 cents to all others.

Visit our better, larger and easier-to-find nursery on Ruckman Road, in Hillsdale, New Jersey, just a twenty minute drive from the George Washington Bridge.

WALTER A. KOLAGA, *Proprietor*

SALUDA INN

High in the Blue Ridge, and within easy driving distance of the Great Smokies, a fellow rock gardener would welcome you to winter or summer vacationing or all-year retirement. Simple living, natural beauty, a paradise for botanists and bird lovers. Prices are reasonable. Write to . . .

MRS. C. W. MASON, SALUDA, NORTH CAROLINA

EXETER WILD FLOWER GARDENS

Native American Ferns and Wild Flowers

Isaac Langley Williams

P. O. Box 352

Exeter, New Hampshire

Catalogue on Request

GREAT PLAINS PLANTS

Are Worthy of Close Investigation

Creeping Phlox, non-climbing Clematis, all-season Evening Primroses, brilliant Penstemons, fine dwarf Asters, Viola montanensis and Nuttallii, a charming dwarf open-sun Mertensia, Anemone caroliniana, Cushion Astragali. Also shrubs, bulbs, seeds.

— Ask for a Catalog —

CLAUDE A. BARR

Prairie Gem Ranch

Smithwick, South Dakota

Our Specialties Are
ROCK PLANTS
WATER PLANTS
HEATHERS

Send For Free Catalogue

L. N. ROBERSON

1540 E. 102nd Street, Seattle 55, Wash.

DWARF DAFFODILS

for Rock Gardeners

112 Choice Varieties

Old and New Types

Write for our Blue Ribbon List

The Daffodil Mart

Nuttall P. O., Gloucester, Va.

Here are "Different" Flowers



3000 rare beauties that will make your garden distinctive—and delightful. Our Catalog, Seeds-Plants-Bulbs, will interest in word and picture.

Ask for your copy.

REX D. PEARCE

Moorestown

New Jersey

RARE ALPINES

from the

WORLD'S FAR CORNERS

Besides Alpines many rare and interesting varieties of Azaleas, Heathers, Primulas and Rhododendron species are listed in our catalogue.

Please Ask For It

ALPENGLOW GARDENS

MICHAUD & COMPANY

R.R. 4, New Westminster, B. C., Canada

HIMALAYAN FLOWERS SEEDS

Anemone, Primula, Meconopsis, Rhododendrons, Iris, Liliums, etc.

Post Free Collections of
\$1.00, \$2.00 and \$4.00

G. GHOSE & CO.

Orchid Growers and Exporters
Townend, Darjeeling, India

RARE ALPINES

That Are Not Hard to Grow

Special to readers of "The Bulletin" Three each of the following: ASTER FARRERI, CALCEOLARIA POLYRHIZA, DIANTHUS SAMMY, and IRIS CRISTATA ALBA. Twelve plants freshly dug from the open ground for \$5.40 by mail prepaid.

Order now for Spring delivery, supply is limited.

N. A. HALLAUER

Route No. 2

Webster, N. Y.

Primula Juliae Hybrids
Choice Rock Plants
Dwarf Shrubs
Iris

Catalog on Request

Carl Starker Gardens

JENNINGS LODGE

OREGON

Colorful

SEMPERVIVUMS

10 Varieties (labeled)

Prepaid \$2.00

Over 100 Different Varieties

MacPherson Gardens

2920 Starr Ave.

Toledo 5, Ohio



BACK VOLUMES OF THE BULLETIN

The following complete volumes of the Bulletin are available at \$2.50 per volume:

18 Volume 2 (1944)

15 Volume 3 (1945)

9 Volume 4 (1946)

These volumes are a gold mine of information. Many single copies from incomplete volumes are on hand also. If you wish to complete your file, write to . . .

AMERICAN ROCK GARDEN SOCIETY

BOX 151

POMPTON LAKES, N. J.

THE ALPINE GARDEN SOCIETY

This Society, founded in 1930, has well over a hundred members in North America. As distance prevents their taking part in the Society's other activities, it is obvious that they have found the *Quarterly Bulletin* to be good value for their subscriptions.

Further particulars regarding the Alpine Garden Society may be obtained from the Secretary, C. B. Saunders, Husseys, Green Street Green, Farnborough, Kent or, better, from Mr. C. R. Worth, Groton, New York, who is one of the Society's Assistant Hon. Secretaries (foreign).

THE SCOTTISH ROCK GARDEN CLUB

The Club's aims are to create an interest in rock garden plants and encourage their cultivation, especially amongst those who have only small gardens.

By becoming a member of this club, you are entitled to: 1. Receive the *Journal* and other publications; 2. Free advice on cultivation, etc., by experts; 3. Take part in exchange and distribution of seeds; 4. When and if in Scotland attend all shows free of charge, participate in any organized visits to gardens and attend lectures and discussions. Subscription 10/-shillings, (\$1.50) per annum; Life Membership £10 (\$28.00)

Further particulars may be obtained from:

MAJOR GENERAL D. M. MURRAY - LYON

Honorary Publicity Manager

28a Inverleith Place

Edinburgh, Scotland

THE ARBORETUM BULLETIN

A Journal of Horticultural Information

Distributed quarterly to members of the University of Washington Arboretum Foundation. For Information — write . . .

ARBORETUM FOUNDATION, SEATTLE 5, WASHINGTON

For Reading and Gardening
Pleasure

PRIMROSES

Quarterlies of the
AMERICAN PRIMROSE SOCIETY
contain articles by British and
American authorities on

Culture **Development**
History

— Four Bulletins \$2.50 —

MRS. EARL A. MARSHALL, SEC'Y.
1172 S.E. 55th Avenue, Portland 15, Ore.

THE AMERICAN PENSTEMON SOCIETY

Cordially invites you to join its growing
list of enthusiastic members.

If you are interested in Penstemons, you
will be interested in the activities of the
society.

Write to the Secretary,

Mrs. Edward M. Babb

213 Lambert Street, Portland, Maine
for Full Particulars