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WHERE THERE'S A WILL THERE'S A WALL

Kathryn E. Boydston, *Niles, Michigan*

The wall pictured is a product of the "do-it-yourself era," the end result of much wanting, wishing, working — and waiting. Even before we came to live in this bit of Michigan hills, woods, and water, nearly fifteen years ago, it was carefully looked over for possible locations for future rock wall, rock garden, wild flower plantings, etc.

In the intervening years ferns by the hundreds have been planted along woodsy paths and on steep and easy banks of little streams, wild flowers not here have been introduced, others increased, lilacs and dogwood in number have been planted as well as evergreens, a few roses, azaleas and rhododendrons have been started and little by little perennial borders built up mostly by seed-grown plants.

But always, year after year, there was a war, or a teaching position or wedding, or a brand new grandchild or something to cause the most-wanted project (the rock wall or garden) to be put off until the next year. Always it seemed it had to step aside for lack of time or stone or funds in favor of other less demanding garden activities of more general interest to family and visitors.

While waiting, however, rock plants were each year hopefully purchased, one of a kind, for trial and propagation in nursery beds. Others as hopefully were raised from seed. A few promptly departed, others waited too long and finally died, but many more prospered, increased and were ready at the appointed time to move into their more suitable quarters in the new wall. For the year finally came (1955) when profits from hard work on a small hobby business of Christmas greens could be marked for stone and there seemed nothing of importance to interfere. During that winter we read all we could and studied magazine articles and pictures saved from previous years' readings. Also, we went to see every wall we could hear about. Some we thought too stiff and formal for our use, in some the stone was too smooth, or too coldly gray, some had too many sharp edges or cut surfaces.

There being no suitable native stone here, we decided against Indiana gray limestone and ordered instead, Wisconsin Lannan stone, paying extra for some of the edges to be weathered. The truck man was interested in our project

and did bring a fine proportion of weathered-edged stone which will hasten the aging process by many years. In two loads, sixteen tons were brought!

In January I had called our local nurseryman friend to ask whether he would be willing to start a job and let an amateur finish it. I had no idea how to join the wall to the steps and the steps looked like no job for any woman, let alone a grandmother!

In June, the exciting day finally arrived when the nurserymen came to start lifting, cutting and fitting the stones together to make the steps. They were here three days—as exciting a three days as I can remember. I did not do one thing but watch—watch and try to learn about fitting stones together.

The pictures show they did a beautiful job and executed a pleasing curve. They did connect the wall to the steps and gave me a start by building a few feet of the wall — as far as the tree trunk. When they drove off, I felt I had been thrown into deep water to swim or sink.

There they were — the rough untidy sloped bank, the forbidding piles of soil, leafmould, sand, crushed stone and the jagged piles of stone—all shapes, all sizes, all heavy. (It had taken two large men to move many of the step stones into place.)

Next morning, even before dawn, I started moving plants from the nursery into new homes by the steps. Several years before I had purchased for fifty cents one plant of *Vancouveria hexandra* and had been dividing it and letting it spread and on this long-awaited day there were just one hundred pieces to plant on the low mound to the right of the steps! With its wiry stems and leaves of two shades of green I can think of no more attractive ground-cover for such a shady spot. The white fairy blooms are out in the picture, which shows the bank well covered after one and one-half growing seasons. Tucked in at the base of the stately elm are some of my favorite violets. A few of Mr. Osmun's blue 'Coleus' have spread to a healthy group, to the left of them, four plants of the beautiful-leaved 'Dean Hills' and around on the lawn side to the right of the 'Coleus' are several of the other hybrid 'Akoula' — so attractive with its early pinkish blooms, and later large un-violet-like leaves. A winter blooming *V. odorata* is here too.

Back in the corner at the joint of wall and steps, my favorite *Epimedium pinnatum sulphureum* is happy with the English *Erythronium dens-canis* planted with it. For earlier color this mound is planted solidly with *Scilla siberica*, with several kinds of earliest species crocus tucked in by the wall and between the violets.

At the edges of the steps, on both sides, are a number of white *Primula acaulis* and a few yellow for very early bloom. Pink and white *Cyclamen neapolitanum* here and there in pockets at the sides of the steps have grown into large patches of beautifully marbled foliage. *C. repandum* is here for spring and several new kinds were added this year. What could be more welcome than their fairy blooms in earliest spring and in flowerless August heat?

On the left side of the main steps, English crested ferns, *Polystichum andersoni*, *P. viviparum* and others not native here and deserving special notice, were set in leaf-mouldy soil, and there is room for many more. Round and about them holding the soil, the ground cover on this side is *Asperula odorata* and some early and hardy *Viola odorata* were left under the Hick's yew and Korean box which hug the foundation. Tucked in here and there that fall were species tulips, early smallish daffodils, winter aconite and to bloom with them, by the first and third steps, plants of that very early *Adonis vernalis* with its cheery spring yellow and ferny leaves. Two medium-sized ferns are planted near each of these to hide their later disappearing.

The main flight of steps, planted with rare ferns and other choice shade-lovers.

The whole project—small steps near basement entrance, stone platform by the kitchen door, planting leading to the main flight of steps, and the wall itself in the distance.

On the steps themselves, three crevice plants were tried — *Cotula squalida*, *Mazus reptans* and *Arenaria caespitosa*. The first has disappeared and this year all empty cracks were replanted to the mazus. It seems more willing than any to take the long shady summers here, it keeps the cracks green and its bloom is most attractive.

At the sides and backs of the steps, wherever there was a welcoming pocket, a dozen pieces of a single gift *Primula juliana* 'Dorothy' were tucked in and some maidenhair spleenwort ferns and other choice small things.

This much (except later bulb planting) was done in three days after the men left. This much and no more, for just then a spell of devastating heat made it unthinkable to lift from the nursery any more plants. It was hard enough to keep these just-planted ones alive and no chance at all to continue the planting or to contemplate tackling the wall — too hot and too many visitors.

All summer those great piles of things were there to taunt me and seemed to ridicule my ability and intention to put them into any kind of shape. So by look and by word and by heated admonitions did every one, all summer. I began to believe it myself — that it would be quite impossible to ever use up all that stone by myself and come out with anything at all.

Finally, in September, there loomed a two week period when I would be alone except for weekends, when it was good and last-chance planting weather. I could put it off no longer. This was *it* — the zero hour. On that Monday morning I approached the confused and confusing spot with very real stage fright and, with the dire warnings of family and friends ringing in my ears, actually fitted the first stone against those left by the men three months before.

Each of the two week-ends found my husband slicing off some of the bank and digging a trench in which to set a level row of cement blocks just below the surface. This was all the masculine help I needed or wanted.

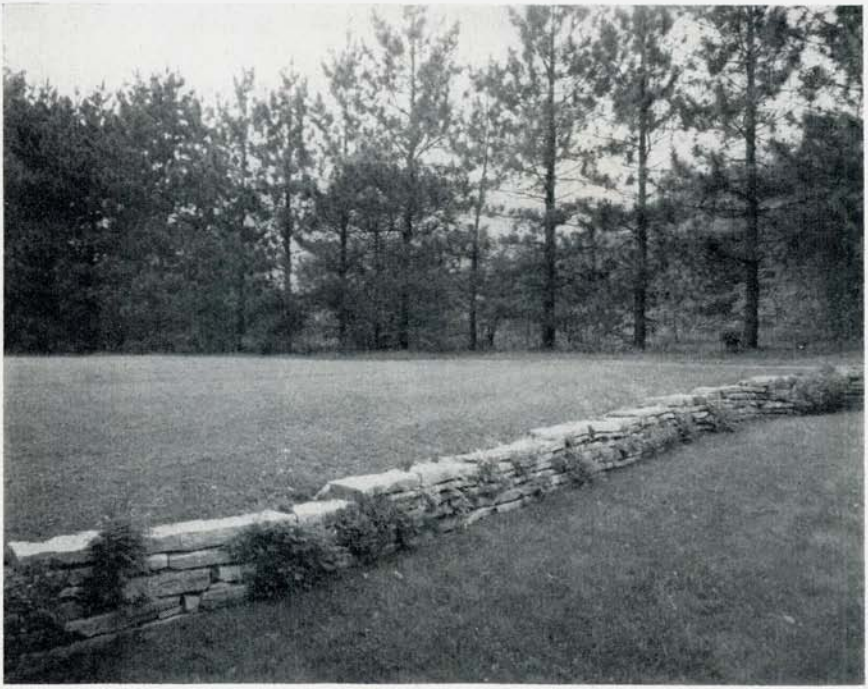
They say if you want something badly enough, you can manage it and "where there's a will there's a way"—in this case, it can be changed to "where there's a will there's a wall." After two weeks and two days of cool weather and concentration to the exclusion of everything else, the last piece was found to fit into the place left for it and I had had no broken backs, legs or arms as predicted, no mishap, in fact, more serious than laying one heavy stone on a finger. I must admit, however, that I had been very very careful and deliberate; for I could never have withstood all the "I told you so's" if I had landed in a splint or cast or X-ray room.

I felt by then I could get a master's degree in jig-saw puzzle — for that is really all it amounts to — fitting stones together so they fulfill all the rules!

The main rules, as every rock gardener knows, are three in number and are entirely fundamental and completely necessary: (1) Each stone must be level horizontally (and I mean level with a level). (2) Each must slope backward and downward toward the bank so rain will wash in, not out. (3) The whole wall must tip back slightly also — roughly about 1½ inches to a foot of height — so that the freezing and thawing of winter will not tumble it forward.

Besides these rules for every wall, here there were the added problems of the whole wall having to follow the general terrain uphill and having to make (with straight-edged stones) a double curve.

It was not a job which could be hurried. Perhaps the main reason I determined to build it myself was that there I could plant as I built. (Of course, too, it was cheaper!) I could take time to think about the plants and to find the right one for a special niche. Obviously professional nurserymen cannot take time for this and have to be content (and their customers satisfied) with ramming in small pieces of short rooted fool-proof plants after the wall is completed. As



The wall: the center planted with sun lovers, while most of the face is in shade a good part of the day.

they built the steps, one man kept saying as he pointed out a crack or crevice "there's a good place for moss." I finally asked him what moss he meant and found it was the terrible yellow-flowered, world-covering sedum! I told him to come back in two or three years and I'd guarantee there'd be not one piece of "moss!"

It was a two weeks I'll never forget. After all the long wait, it was the most gratifying of my gardening experiences to go each dewy fall morning to the nursery beds, put into my carrier a few small ferns, some choice saxifrages, some primula or aquilegia seedlings—and at the end of the day have them settled cozily into their new homes in a few more feet of completed wall.

One more rule—perhaps the most important of all for success and happy plants—as the wall goes up stone by stone, soil must be poked, rammed and pounded into every tiny space between and behind. This I did with a piece of broom stick rounded at one end and sharp at the other. One thing learned — by necessity — was to not try to lift and carry the heavy stones but to "walk" them corner by corner. Don't be misled by the narrow stones along the top of the wall. That kind had to be hunted for diligently. Many or even most of the others are very large and extend way back into the bank. Some of the plants put in had roots already long enough to reach well back into the soil behind the wall.

The fact that most of the wall is in the shade of the beautiful old elm and that of more distant trees, I tried to accept as a challenge rather than a problem. Shade of course limits the choice of plants but still there are many available for

Just across from the east end of the wall, this stone seat is a favorite place for eating lunch and enjoying the beauty of the wall plants.

such a location. Even if there had been the needed sunshine, I should have decided against the usual "wall plants" as being too robust and "droopy." Wanted instead, because of the low type of wall and the nice weathered stone edges, were the cushion plants as lovely in foliage as in flower. These would spread lengthwise filling up the cracks and covering the soil. I had for some time been collecting saxifrages, especially the encrusted ones. Every one went into the wall as did all androsaces from nursery beds. These with rock ferns, dwarf aquilegias and some of the smallest non-ramping violets were to be the main plant occupants, repeated thruout the length of the wall. *Campanulas garganica* and *muralis* and *Corydalis lutea*, too, were repeat plants.

Besides these "staples," such luxury items as *Morisia hypogea*, *Thalictrum kiusianum*, *Townsendia excapa*, *Gentian acaulis*, *Primula juliae*, haberleas, *Iris minuta*, *Bellium minutum*, a very dwarf form of *Adiantum pedatum* and many another favorite carry the interest from one end of the wall to the other.

In one small section beyond the middle some sun-loving plants seem to get enough light. small dianthus, *Arabis kelleri, Globularia nana, Erinus (albus* and 'Dr. Hanelle'), a few small sempervivums and select sedums, two calaminthas and other things. One miniature rose 'Pixie' just fills a small pocket on top and always amazes visitors with its perfection of rose foliage and bloom in infinitesimal size.

After the wall was completed a small stone seat was built where many a noon sandwich has been eaten while enjoying the current bloom and varied greens of the wall. Ferns and violets were planted beside it and it seems always to have been a part of the landscape.

Sometimes a wall is made more interesting by a bed of plants at its base or its top. Here we wanted only to connect two separate lawn areas and when grass was brought to the edges of the top stones and to the base of the wall, the desired effect seemed to be achieved. Now it is just one broad expanse of lawn with only the wall connecting the two levels.

In the winter, protection from the sun is given by leaning balsam boughs against the wall. There have been almost no losses.

Very little time is needed for weeding and watering. It is an extremely easy and satisfying way to care for and enjoy a large number of plants.

PLANTS THAT DECLINE TO BLOOM

ROBERT M. SENIOR, *Cincinnati, Ohio.*

ROCK GARDENERS WHO RAISE a considerable variety of plants probably have observed that a certain number of them, although apparently thriving in their gardens, nevertheless fail to bloom. One of the outstanding examples of this is *Gentiana acaulis,* which as someone has said, either loves or hates you. Possibly some of our readers have heard of the experience with this plant at the Edinburgh Botanical Garden. Briefly, this organization tried an experiment. A few miles away from Edinburgh there was a garden where the plant bloomed profusely, whereas at the Botanical Garden, although the plant flourished, no flowers were formed; so the Garden potted up some of its plants, and the private gardener did the same with his plants. They then exchanged pots, and strange to say, those received by the individual gardener bloomed, whereas those received by the Botanic Garden declined to do so. I do not know whether anyone has offered an acceptable explanation of this phenomenon, but one theory advanced was that in this case, a difference of climatic conditions between the two localities may have been the contributing cause. Incidentally, in our own garden we have several plants of this gentian placed in different positions, each with slightly different soil conditions. In one location the plants have never had more than two flowers in any one year. In the other location we have never had a single flower.

To cite another case: for a number of years we have had *Globularia cordifolia,* and have never seen a flower, although we have kept some plants in our little Alpine House as well as outdoors. On the other hand, *Globularia nudicaulis,* a near relative, blooms every year; yet both these plants are found in the Alps, and, I believe, under somewhat similar climatic conditions.

In this connection it might be of some interest to quote a Russian botanist who studied the plants introduced in a botanical garden of that country. He found that a large percentage of plants not only did not produce viable seeds, but that many of them did not flower. He adds: "It is thus clear that a plant, even when transferred to a region with similar habitat conditions, has serious obstacles to overcome before it can be fully naturalized. . . . Despite the centuries-long work of botanical gardens and acclimatization nurseries, involving the introduction into cultivation of thousands of species, most of these species, though continuing to grow in these gardens under man's protection, and with his care, have not in the slightest been able to emancipate themselves from this dependence."

As above mentioned, the author states that many seeds received from other botanical gardens were not viable. This statement makes one wonder whether some of the seeds which we have received through our seed list, and which, although fresh, nevertheless did not germinate, may be due not to any fault or neglect on our part, but rather to the possibility that the seeds themselves were not viable.

NOTES ON NEW ENGLAND ALPINES

W. A. PEIRCE, *Kittery Point, Maine*

WHAT ACTUAL PHYSICAL CONDITIONS govern the occurrence and distribution of our native alpine plants? What do they need, not only to survive vegetatively, but to propagate themselves? That they are to be found almost exclusively at higher elevations inclines us to attach considerable importance to the obvious factor of altitude. However anyone who has attempted to grow *Diapensia lapponica* at sea level can hardly have failed to notice to what degree it differs from, let us say, *Loiseleuria procumbens* in garden adaptability, although both are normally present at altitudes of over 5000 ft. on the White Mountains of New Hampshire, and elsewhere.

I believe that we should obtain a far better understanding of the problems posed by this and similar discrepancies in plant behavior if we could visit all the exposed summits of 3000 ft. or more in New England and the Adirondacks with contour maps (i.e., the Government Geodetic Survey maps of the areas involved) and indicate on them in detail the location and distribution of all these plants of limited range, noting at the same time the conditions under which they occur. We should doubtless encounter numerous micro-regions, sharply demarcated by local geographical and geological features of terrain, and differences in climatic exposure, each possessing its own microflora (that is, micro in the sense of being limited), its own regional endemics and truly endemic microforms as well. We should find, for example—and in this instance there has already been considerable study — that the arctic-alpine flora of Mt. Washington and its vicinity occurs in very definite groupings, often forming zones or sub-regions, and that these often comprise quite dissimilar plant material for a given elevation.

Attempts have been made to classify the plant associations involved, both with regard to availability of soil and moisture, and according to plant structure as promoting a process of evolution or succession in plant communities. It is worth noting that both here and in the arctic it has been exceedingly difficult to pinpoint what might be called stable conditions of plants, suggesting the interaction of environmental factors, possibly also diversity of origin.

Continuing our study, and assuming that we have marked contour maps before us, we should find — and this is of exceptional interest — that a few plants which seem to prefer the highest levels on the Presidential Range, and which almost form a definite belt there, appear again at considerably lower elevations elsewhere in the mountains. *Arenaria groenlandica*, to cite a case in point, is one of the last plants, barring sedges and lichens, to be met growing in the gravel and debris at the base of the Mt. Washington summit cone. This plant shows up again at a little over 4000 ft. on Mt. Bigelow in Maine, although there the alpine heath is but two or three acres in extent and consists chiefly of *Ledum groenlandicum*, dwarf vaccinium and *Empetrum nigrum* var. *purpureum*. Incidentally *Arenaria groenlandica* blooms more freely in the garden than some of its alpine companions, and therefore might be assumed to set seed more freely at lower levels, which may in turn account for its occurrence there, although Gray lists a form occurring not only at "lesser elevations" but in a few scattered instances at sea level.

Diapensia lapponica, notoriously difficult in cultivation, is most frequent between the region where the bulk of the ericaceous plants grow and that populated largely by arenaria, in a very gritty medium containing relatively little or no peaty material, yet one finds it again (my evidence is in the form of an excellent

photographic enlargement in the possession of the Maine Appalachian Trail Club) near the summit of Bald Pate in Maine, some twenty-five miles northeast of the Presidential Range.

Loiseleuria procumbens, on the other hand, is more sporadic but at the same time of more general occurrence on the Presidential Range, where it shuns the highest levels, preferring altitudes of 5000 ft. or so. Its ease in cultivation in lowland gardens suggests that it could be a survivor at higher levels rather than a plant germane to them originally. In fact, this tolerance of widely ranging conditions, equally true in the case of numerous other plants of limited distribution, might furnish some clue to its original habitat; one could almost say that a study of the garden adaptability of alpines over a considerable area would be as useful a contribution to their ecology as a study of them in their native haunts would be to the alpine gardener.

Returning to loiseleuria, it is true that one does not find it, to my knowledge, on the lower summits of New England. However its relative scarcity even at higher elevations could mean that it may not set much seed — it certainly is not a free bloomer in the garden — or that some climatic or environmental factor necessary to its unhampered propagation may be lacking.

Temperature rather than elevation may play an important role in favor of the survival of plants such as *Salix uva-ursi*, which seems to do better in cultivation in at least one garden well north of here.

One is forcibly impressed, in one's study of the mountain microregions, with the local variations produced by physical barriers and differences of exposure at comparable elevations. Tuckerman's Ravine on Mt. Washington supports a flora in certain respects quite unlike that of Huntington's, although the two are less than a mile apart. Tuckerman's, the more southerly, is much wetter than Huntington's, and opens (i.e., descends) almost due east. It is sheltered from the south by 5500 ft. Boot Spur. Huntington's opens in a south-easterly direction, almost joining Tuckerman's at its base so as to form an acute angle, but separated from it by a series of ascending ridges culminating in the "lion's Head."

In the upper reaches of Tuckerman's are found, among other things (but not necessarily as an association), *Castilleja pallida*, *Arnica mollis*, and at times a large stand of white orchids. The flora here is montane rather than alpine, which indeed is largely true of Huntington's, and is to be expected in view of the relatively protected terrain in each case, which allows some scrub growth, especially at the base of steep slopes where there is a talus of alluvial accumulation. However I have not found in Huntington's the three plants mentioned as occurring in Tuckerman's, but have observed *Phyllodoce caerulea*, while *Campanula rotundifolia* is fairly common there, from about 3500 ft., as a large flowered dwarf.

Another summit supporting a modified alpine heath is that of Chocorua, three miles to the south. The area involved is perhaps twenty or thirty acres in extent. I am told that much of it was originally forested but that fire destroyed the growth near the summit within the last hundred years, there being, I believe, existing photographs to prove this. I have read that diapensia and arenaria grow there, but have never seen them. *Empetrum nigrum* is common at timberline, and *Vaccinium vitis-ideae minor* and *V. uliginosum* var. *alpinum*, *Ledum groenlandicum* and *Potentilla tridentata* abound as they do on Bigelow. These are all plants of subalpine as well as alpine levels and occur elsewhere, even at sea level as one travels up the Maine coast. There, even as far south as York, conditions seem to favor the subsistence of a sort of rudimentary alpine heath, whose principal occupant is the ubiquitous *Potentilla tridentata*, sometime found in conjunction with Bar Harbor juniper, and further north, *Vaccinium vitis-idaea minor*.

I have collected what I believe to be *Vaccinium oxycoccus* in York, and this comes back to me year after year on a rocky dry southwest exposure in the garden. I like to think of the potentilla as a sort of super-alpine, one having a "macro-range," because of its greater tolerance of drought and lowland temperatures, and of the Bar Harbor juniper as a possible climatic variant in some way comparable in function to the dwarfed *Picea mariana* of the mountains. As might be expected, the transitional empetrum begins to make an appearance as one travels north, and is even at times represented by *Corema conradi* (Empetraceae). Also I believe the variant of *Arenaria groenlandica* described in Gray is to be found at one or two stations.

Again, one asks oneself, "What survives because it likes it, and what survives merely because it finds its surroundings tolerable?" — to paraphrase Clay's remarks on dionysia. In the case of loiseleuria, it would seem that certain conditions which are not essential to its well-being, once established, are, on the other hand, prerequisites for its successful propagation by other than vegetative means, although it may quite possibly not be a strong propagator in itself. Diapensia, to judge from its colonizing propensity, is apparently a stronger propagator but has a very limited tolerance for both soil and climatic conditions.

Vaccinium vitis-idaea minor and *Potentilla tridentata* are "there" because they "like it"; their metropolis, at least for this area, is alpine if not arctic-alpine, although they thrive at sea-level under certain conditions: the presence of mist perhaps one, especially in the case of the potentilla, which will grow in very dry soil.

Geum peckii is another plant with a very circumscribed micro-range that is highly amenable under cultivation. It occurs almost exclusively in the central part of the Presidential Range, and on Mt. Kineo near Moosehead Lake at less than 800 ft. In the White Mountains it stays above timberline, but is found from well below the 5000 ft. level up to elevations of 5500 ft. or more on the north side of Mt. Washington. It prefers boggy grassy places where there is a fair amount of residual turfy peat which does not drain too rapidly. Although plentiful, it could be a survivor. Interestingly enough, it is rare or absent at the top of the head of Tuckerman's, where the soil would seem to be right for it.

I might mention here, in connection with moisture loving plants, that pinguicula has recently been discovered growing on Mt. Willard (2800 ft.) in Crawford Notch, a few miles to the south.

In Vermont, of course, and far to the north in the sedimentary and calcareous regions of Maine, the flora undergoes distinct change. In the former state, *Saxifraga oppositifolia*, *aizoon*, and *aizoides* occur locally. *S. aizoon* is also reported from Mt. Katahdin in Maine, which is granitic. *Primula mistassinica* occurs in both states. Draba is represented by an occasional species.

Naturally, one can enlarge the scope of one's study of these sub-regions to include other than alpine plants. *Chiogenes hispidula* is perhaps most frequently montane, but never alpine in our latitude, inhabiting as a rule shady, moist, coniferous places, but I have seen it growing profusely on the gravel banks by the side of the road to the Waterville Valley in New Hampshire. Also, why, here in southeastern Maine, is *Epigaea repens* common five or six miles inland but absent near the ocean. This holds true also for *Trillium undulatum*, but one has to travel a few miles further inland to find it.

To sum up, we have practically at our doorstep a very rich field for study. The problems of origin, distribution, and association of our native plants are still far from a complete solution in many cases, and we who try to grow them can learn much about their cultivation from such a study, and perhaps even contribute a little ourselves. Consider, for example, our native *Saxifraga virginiensis*.

Why should it be found almost invariably growing in very shallow mossy soil on dry ledges, usually with north or northwest exposure? Does it need the moss, or the rock, or both? Does it dislike deep soil?

Let us hope that some dedicated individual will provide us with some of the answers.

PLANTS I LONG FOR – AND SOME I HAVE

MRS. HENRY FULLER, *Fairfield, Connecticut*

THE SNOW IS DEEP, the weather cold, and I have stacks of the *Quarterly Bulletin of the Alpine Garden Society* beside me and a big log fire in front of me. As I read about plants I never saw, I wonder whether they will grow here, and what the members of the American Rock Garden Society know about them. So, why not ask? I consult Mr. Kolaga's handbook first, and if I find a plant listed there, I consider my question answered, so I shall omit that plant.

The September 1948 *Bulletin* mentions *Morisia hypogaea* as a bright and reliable little crucifer, while *Campanula zoysii* is called "a star of our collection with enormous soft blue puckered flowers." Saxifrages 'Faldonside' and 'Irvingii' are described as plants that produce a pleasing combination of color and are very long lived. (I see that Mr. Kolaga has these.)

Cardamine trifolia is described as a cheerful easy plant, never failing to bloom profusely with generously sized white flowers, with three-cornered foliage, very easy to divide. *Omphalodes cappadocia* Mr. Cadney calls one of the better true coerulean blues of the garden. He says it is an easy-going fellow if not put in too sunny a place. I notice that Mr. Kolaga lists *Omphalodes verna*, which he calls a creeping forget-me-not for moist shade.

Cunila origanoides is an American native with a shower of tiny pinkish mauve flowers, individually of no account, but quite striking en masse. *Acantholimon glumaceum* is said to have brilliant rosy flowers on four inch stems, and to grow in any light soil, eventually forming a very large clump—a dense spiny evergreen cushion.

This year, for the first time, we had alpine poppies, grown from seed. They have small ferny foliage and lovely flowers of seven shades of pink, five shades of yellow, and a few white blooms. They blossomed profusely in May, and had a few blooms, off and on, until frost. As the seeds ripened we sowed them; they sprouted promptly, so we had new plants while the parents were still in bloom. We had them planted in leafmold soil, in semi-shade. We have read since that they need sandy soil in full sun, and are trying the new plants in both places.

We grew *Cyclamen neapolitanum*, pink and white, from seed. We started them in flats of sand and peat, planted them out in early spring. The foliage is beautiful all winter long, but disappears in summer before the blooms come. We had ours in shade, but the blooms stuck their heads out toward the light in a strained and suffering manner, so we have moved them into full sun, among stones which we hope will help supply the moisture they are said to need.

We have found *Veronica pectinata* a valuable and beautiful ground cover for places that need a cover to keep weeds away. It seems to bloom better in places that get just a small amount of shade.

We often wish that we knew the one plant which each rock gardener thinks does the most for him, all things considered. Ours is *Phlox divaricata*.

IDLE THOUGHTS OF AN IDLE FELLOW (AUTUMN, 1957)

R. GINNS, *Desborough, England*

IT IS A LOVELY DAY in early October. Until an hour ago I lay luxuriously in bed gazing through the window at a garden gay with autumn tints. Not only the trees and shrubs that screen the garden from neighboring properties have taken on these lovely colours, but they have been joined by many inhabitants of the rockeries that fill the biggest part of the picture. The lawns are a good deep green for rain has been plentiful recently. Lemon, yellow, brown, orange, even scarlet are provided by the dwarf shrubs and even some herbaceous plants, whilst in the borders are colour contrasts: the purple of Michaelmas daisies, the pink of China asters, the crimson of zinnias and so on. Fortunately, the bed is far enough away from the garden for the weeds and other blemishes to be hidden.

Anyone who knew me a few years ago would ask what I was doing in bed on a fine autumn morning with work waiting to be done. Alas, I am just convalescing from an attack of Asiatic flu. I know it is the fashion to use the adjective Asian, but as long as I can remember, the adjective derived from "Asia" has been Asiatic and I see no reason for changing now. This convalescence should enable me to work off a lot of arrears of writing. But at the moment I don't feel too much like doing anything at all. Yesterday I was in bed all day with no desire to get up. The reading of a novel proved too much for me as I was incapable of prolonged thought. So I turned to a book that has entertained me for more hours than any other book on my shelves. This is a companion volume to Farrer's "The English Rock Garden" but probably not nearly so well known in the States. Its title is "The Present Day Rock Garden" and the author is Sampson Clay. Of course, the title no longer applies as it was written before 1937. In any case very few of the plants in it were in cultivation in 1937 and I should say, at a guess, that even fewer can be found in our gardens now.

It is a ponderous tome of nearly 700 pages, so as I lay comfortably in bed I had it propped up in front of me and idly turned the pages, allowing my thoughts to drift where they would under the influence of any chance name that happened to catch my eye. Certain marginal notes have been made in the past and of course these played a large part in the process of direction. Thus opposite *Phlox caespitosa* I had written "Hocker Edge, 1939." I closed my eyes and saw this once famous garden as I had last seen it in 1938. It formed a long valley with massive rocks, and my most vivid memory was of a small conifer up which a plant of *Mutisia retusa* in full bloom was ramping with the vigour of a common clematis. The written date reminded me that on the outbreak of war, Col. Grey, the bulb expert, sold off all his plants and disposed of the garden, which was a real loss to alpine plant enthusiasts.

My eye strayed down the long list of Phlox species, some with entrancing descriptions, that I had never seen offered by nurserymen, nor for that matter seen growing in the collection of the many keen plantsmen of my acquaintance. I wondered why our American friends have not shown sufficient enterprise to bring some of these beauties from the wilds. I thought of the numerous species, varieties, and hybrids of gentians brought from the far away Himalayas and Chinese alps, many of them almost indistinguishable but constantly shown at shows, and then wondered whether I could find as many as half a dozen different species of Phlox on show in any one year. This comparison saddened me for I am very fond of phloxes and have an idea that some of the desert species

might fit in well with my collection of succulents. (For the benefit not only of Mr. Ginns but of anyone else who wonders why so few are available, it may be well to mention that while gentian seeds are produced in relative abundance, those of the desert phlox are so few that one may hunt for hours to find a dozen or so, and must be there at the right moment to catch them, for they are quickly shed. Editor)

Two heavily annotated pages remind me that my collection of Fritillaria species is growing. At the same time the date opposite *F. tuntasia* reminds me that it is ten years since I first received its seeds and that it has been flowering for only a couple of years. The genus Fritillaria is not showy but quite fascinating. Visitors to the garden who are not familiar with them invariably go into ecstasies over them. Some, such as *F. pyrenaica*, are so easy that self sown seedlings appear all over the place, but others are most difficult to establish even if it is possible to obtain them.

As I glanced down the list of species I noted the number that hail from the States—*FF. liliacea, pluriflora, purdyi, recurva, striata*, and wondered again, as I did with the phloxes, why these remain unobtainable whilst *F. askabadensis* and *F. karelinii* from the less accessible parts of Persia have found their way to this garden. As I pondered on this I flipped over more and more pages and came across scores of names of apparently desirable plants found in temperate North America, whose introduction is still awaited. I could only conclude that American gardeners are not interested in wild species but are kept dazzled by the bigger and bigger varieties of a few species that come in a never-ending stream from the nurseries.

When I came to Matthiola I cheered up somewhat, for here I saw two names, *M. albicaulis* and *M. formosa*, of plants that have recently reached me from Persia. But when I looked for *Cephalorrhizum turcomanium, Hulthermia persica, Biebersteinia multifida*, received from the same source, they were not to be found. Even if we had all the hundreds of species listed by Clay, there would still be other plants to reward the diligent seeker after something new, without calling on the services of the hybridizers.

For a time I mused on hybrids and decided that the rock garden could manage very well without them. I turned the pages until I came to Lilium and read "Lilies for the rock garden as often as not mean hybrids of *L. elegans* type." But then follows a long list of dwarf and distinctive species that really look at home in the rock garden: *LL. duchartrei, forrestii, wardii, papilliferum, rubellum, amabile*, and then I thought of the spate of hybrid lilies that have been appearing, in which all the distinctive characters of the species have been bred out to give way to greater size and a bigger colour range.

A further turning of the pages followed until I came to Nama. This started me wondering whether anyone has discovered the secret of germinating the seeds of these and other desert plants such as Arctomecon. I have tried them on several occasions but have never obtained even a suspicion of germination. Accounts I have read of these plants from the pen of Mr. Dwight Ripley have intrigued me enormously and I shall not be happy until I have grown some of them.

A few pages further on I came to Naussavia, with a plate of *N. nivalis*. This genus from the inhospitable regions of Patagonia is something quite distinct from anything we already have. I lay there and thought about a recent visit to Edinburgh and the garden of a lady whose husband has a sheep farm out there. Several plants from Patagonia were growing there, including a lovely little lavender oxalis in flower. How long, I wondered, would it be before any naussavias joined the oxalis in the kindly surroundings of Edinburgh.

A REPORT FROM NEW ZEALAND

MRS. A. W. MCKENZIE, *Masterton, New Zealand*

THE VERY GENEROUS PACKAGE of seeds to reach me through your Seed Exchange almost overwhelmed me, and my seed boxes are the envy of all my gardening friends. Now today in the mail there is another packet of erythronium seeds, and I can hardly wait till the morning to begin planting them. They are first favorites of mine among the spring flowers and I feel they are well worth the trouble of tending until they are of flowering size. Before the Second World War I ordered a few bulbs from Mr. Carl Purdy, but before they reached me the war broke out and the parcel was three months in transit. You can well imagine what the poor little erythroniums were like when I opened the parcel, just like dry pieces of cork, but I planted them with every care and tended them over the years until finally eight years later they began to flower and I now have a precious little colony of them.

Our alpines are strange rather than beautiful, mostly white in color. This is believed to be because there were no bees in New Zealand until the advent of white colonists. *Ranunculus lyallii*, the shepherd's lily, which is found in the higher mountains of the South Island, is quite the most outstanding. The flowers are pure white, three to four inches across, with a great boss of yellow stamens. This of course is only a plant for a large rock garden, as it grows three feet high.

For ground covers or in crazy paving our raoulias are splendid; some are vividly green while others are soft blue-grey and so hardy that one can walk on them as one would on a lawn. They are excellent cover for small bulbs, *Raoulia australis* and *R. tenvicaulis* especially so, for the soft grey of the leaves makes a lovely background to the bulbs, particularly such things as *Scilla sibirica* and *S. tubergeniana.*

You say in your letter that you are growing *Leucogenes grandiceps*, a native of the South Island, rather interesting with its creamy velvet flowers. I feel that our helichrysums should do well with you as they grow well up amongst the snows on the mountains. *H. alpinum* is a fine one that grows on Mt. Egmont. I have a large patch of it in my rock garden, grown from a plant I collected while staying at the Mountain House. I have in my rock garden a plant of *H. coralloides*, a native that is now very rare. I believe there is one growing in the Edinburgh rock garden, but even in New Zealand it is seldom seen. The stems and leaves resemble green and white coral, and it has white daisy flowers that are pinkish in bud. This is one of the plants that I class as strange rather than beautiful. *Raoulia eximea*, our mountain sheep, is another in this class.

Masterton is a country town situated in the center of a rich farming area. The climate is good, with an annual rainfall of about forty-five inches, evenly spread throughout the year. Our severest frosts are about fourteen degrees, but we seldom have snow and the sunshine borders on two thousand hours a year, with a maximum temperature of about eighty-five degrees. Some of the land in the district is the best in New Zealand, but we are on a poor stony part where the soil is thin with very sharp drainage. Over the years we have improved it so that now it is in a good fertile condition. My garden is only a small town one, but it is considered to be attractive and full to overflowing with interesting plants.

PENSTEMON COUNTRY

MYRTLE HEBERT, *Elma, Washington*

IN JUNE OF 1957 it was my good fortune to join friends on an outing across the state of Washington and down the western side of Idaho, to the town of Weiser, where the regional meeting of the American Penstemon Society was to be held. This meeting was the focal point of a vacation trip covering about a week.

Leaving home (Elma, just a few miles from the coast) I went by bus to Seattle, then north to Everett, where I was met and driven out to my friends' home at Lake Stevens. June is a beautiful month in the Puget Sound country. At home the slopes were blazing with the yellow broom, but that was only a backdrop for many less dominant flowers — each bend in the road seemed to show a new picture and to feature new flowers.

After a leisurely afternoon and evening spent in browsing around the garden and visiting, we turned in for a short night, leaving for the first lap of our trip before five in the morning of June 5. The weather was a bit foggy in the beginning, but it soon cleared and the full beauty of the Cascades spread out before us as we headed for Stevens Pass and the interior.

On the mountains we saw mats of *Penstemon fruticosus* in full bloom. This species seems to be quite uniform in type, and makes great spreading mats over rocky and steep mountain cuts, with large lavender purple blooms. After crossing the crest, as we dropped down the eastern slopes, we found *P. ovatus* and one we decided was *P. pruinosus* — a dainty little blue one with a mat of nearly ovate leaves. As is their habit, most plants were in inaccessible places and at points along the highway where we dared not stop. The lovely scarlet gilia grew all over the slopes. At a distance it looks so much like a red penstemon that I am never quite sure, until I look at them at close range, which I am seeing, when the ferny foliage identifies the gilia beyond all doubt.

Leaving the mountains, we drove out into the wide valley farmlands, stopped at a convenient town for breakfast, then on across the Columbia River at Wenatchee, and out onto the real flatlands. We stopped for gas at a lonely little outpost where there seemed absolutely nothing to break the stretches of wide open spaces, but as usual we got out to limber up a bit and prowl. Going down a little bank at the rear of the station, we found a grassy field just alive with wild flowers: the sphaeralcea was full of little salmon-orange saucers, a beautiful lavender calochortus was scattered thickly through the weeds, and there were alliums and assorted unknowns that we dared not take time to investigate.

Farther on, in the Moses Lake area, we stopped again for a breather. This time it was the rose colored alliums that we wanted to investigate, but to our surprise, in the sun-baked adobe ditch beside the highway, little *Lewisia rediviva* was pertly blooming, the stems popping up from cracks in the hardpan. When I consider how we pamper our wildlings, it is perhaps little wonder that they fold their tents and depart.

Our plans called for spending the night with friends at Fairfield, about thirty miles south of Spokane, and we arrived there in mid-afternoon and enjoyed their wonderful hospitality until early the next morning. It was raining heavily when we left, good for crops, but difficult for driving. The first part of the drive was through farming country, the well-known Palouse wheat lands — then as we went south, crossing to the Idaho side but following quite closely the state line, we worked our way into rougher country, grazing land and timber. The road

is a constant series of spirals and hairpin turns, the sheer mountain wall on one hand and a whole lot of vacuum on the other. I had been told that the view is superb — and it is — only we hit fog at the crucial moment, and that descent, with our eyes glued to the white line in the middle of the road, was something not soon forgotten. However, a good and careful driver saved us from accident.

We stopped in Lewiston for a late breakfast, and when we left the fog had cleared away; as we climbed upwards, we did get the beautiful panorama we had missed coming down. One could see for long distances — mountains, valleys, rivers and much timber. This is wonderful penstemon country too, and our constant pointing and exclaiming did little to aid the poor driver. We did stop at several good scouting places, where wide spots in the road made strategic pullouts possible. We had been intrigued by patches of vivid blue ground mats which brought the everlasting query, is it a penstemon? Then finally came the chance to stop close to a clump — and it wasn't. It was a skullcap or possibly a dragonshead, but it did make gorgeous mats of color.

At one place where we stopped, we found *Penstemon vaseyanus*, new to us and to gardens. The first patch of it was white (there were no colored flowers there at all), one of the Proceri with unusually large flowers, really showy, some eighteen inches tall and free blooming. A little farther on we found what keyed out as the same species, in lavender and in soft blue. *P. wilcoxii* grows thickly in this country, often at the edges of groves of trees, a uniform dark blue with almost no variation.

A bit farther on as we dropped into the canyon of the Little Salmon River *P. deustus* was in full bloom, both the usual type and a more dwarf compact form which we decided later is *P. heterander*. These are a nice white, with very attractive foliage, whose worst fault seems to be that the old flowers fade to an unlovely brown and don't drop. It was in this area that we made our second discovery in the penstemon field. This was a neat, foot high, violet colored member of the Humiles which we later identified as *P. elegantulus*, an endemic of the Wallowas whose eastern borders we were skirting. It is a very neat attractive plant, with flowers of good size for the section to which it belongs. We were feeling very much elated — but this was to be our last discovery!

The last day of the regional meeting at Weiser was given over to a picnic and outing in the mountains to the north of the town. We backtracked a ways, then turned off up a canyon. On this trip, we really saw Idaho's wild flowers at peak performance. As we were penstemon minded, they were our first consideration, but we saw many other beautiful plants.

Our first stop on the penstemon hunt was a slope beside the highway, where *P. cusickii* grew in profusion. It is dwarf, with myriads of short wiry stems strung with dark blue bells. It seems to spread by underground runners, so that large patches are formed, without much leafage. Among the penstemons were masses of the same rose allium we had seen in such profusion all along our trip, and with them many lovely calochorti, the sego lily, with velvety white petals, each with a deep maroon purple spot and feathering in the eye. Several large clumps of *P. venustus* grew beside the highway, in open flower here, although just budding in the higher country. The clumps were three feet across and almost as high, nearly hidden under the canopy of light purple bells.

A bit farther on we stopped at a field that was completely overgrown with *P. payettensis*, a striking member of the Glabri, with twenty-four to thirty inch stems of large blue bells. The individual flowers are produced in whorls around the stem, at each node. I counted twenty blooms at a single node, and there are many circles of bloom on each stem, many stems in each clump. There must have been acres of them. The morning sun struck the field, made fresh and

glistening by a shower the previous evening, and it made an unforgettable picture. There were a few color breaks, pinks and pastels, but a very high percentage of the flowers were a clear pure blue, like a patch of summer sky.

We drove up to the chosen camp grounds for our picnic lunch, then spent some time browsing around. The camp grounds are in a narrow canyon, under towering pines. Hillsides were covered with all kinds of wildflowers, gilias and dozens of others, while trilliums grew thickly underfoot. It was here we found the *Paeonia brownii* for which I had been clamoring.

Time was running out and we were forced to head homeward, but made a few stops on the return trip. One was at a rather damp, marshy mountain meadow, where the clusterhead *Penstemon aggregatus* was a carpet of dark blue, an erect and quite a good-sized plant with lots of vivid blue flowers. Our last stop was at a slope sheeted with the difficult but fascinating *P. gairdneri* ssp. *oreganus*, a low woody plant with many rather wide open blooms varying from violet through pastels to white.

Our party broke up at this point, each wending his way homeward — or onward to more plant worlds to conquer. I caught a bus for home, where I was overdue, and rode across Oregon in the night. My only clear memory of the sleepy trip home is of the bus ride down the Columbia River canyon in the early morning, with the sun shining on the glistening snowy peak of Mt. Hood.

AN EASY WAY TO BUILD A PEAT GARDEN

RALPH W. BENNETT, *Arlington, Va.*

IN READING OVER back numbers of the Bulletin recently I came across the articles by Mr. Ingwersen in 1953 on the merits of a garden constructed entirely of blocks of peat. These were followed by an article by Mr. Nearing saying that a peat block garden should prove to be a boon to persons who cannot or do not want to handle large rocks. But his clause "as soon as block peat becomes available" suggests that such gardens cannot be built at present.

Two years ago I built a section of my rock garden into a "New Jersey pine barren" by putting down a two-foot layer of pea gravel mixed with an equal quantity of peat moss. I had some left over and made an artificial bog in a level place, and another place for heathers and shrubby penstemons. Being an inveterate experimenter, I didn't confine these places to acid-loving plants, and soon discovered that many other kinds like such conditions. Then this year I made another peat garden thirty feet long by covering the existing soil with four inches of gravel and peat. In this section I have put all kinds of rock garden plants, and so far they all look very happy.

I think it is safe to say that a gravel and peat garden would be found to have all the merits claimed by Mr. Ingwersen for the block peat garden. In addition, we would not have to wait until block peat becomes available, if ever. Neither do we have to build up walls, as he does, but can simply lay the gravel and peat on top of whatever soil we already have. Finally, we do not need to confine such a garden to acid-loving plants. Nearly all kinds of rock plants seem to like it.

As a matter of fact, I think that block peat would have some disadvantages in this country. If exposed to our hot summer sun, it would be difficult to keep it from being crusted; and when once this happens, it is very hard to get it to take up moisture again. In many regions it would heave badly in late winter, as was indicated when one of my flats of peat heaved so badly that all the seedlings were destroyed. None of these things happen to a gravel-peat garden. I have a hard time to restrain myself from converting my whole rock garden into gravel and peat. I recommend it highly.

SCABIOSAS

ROBERT M. SENIOR, *Cincinnati, Ohio*

THE GENUS SCABIOSA is one that is not often represented in the rock garden, possibly because the low growing ones are seldom listed in American catalogues, and in addition the majority of species are fairly tall and more suitable for border planting. The two species most frequently encountered in gardens are the popular annual *S. atropurpurea* and its varieties, and the very charming perennial, *S. caucasica*, which varies somewhat in height and color, ranging from pale bluish-violet to light violet-purple. Some low growing varieties of this latter plant could certainly grace the rock garden.

Possibly some of our members may be surprised to learn that Index Kewensis lists over seventy species. They are found mostly in the north temperate zone, and nearly all are native to Europe and Asia Minor. There are no species indigenous to this country.

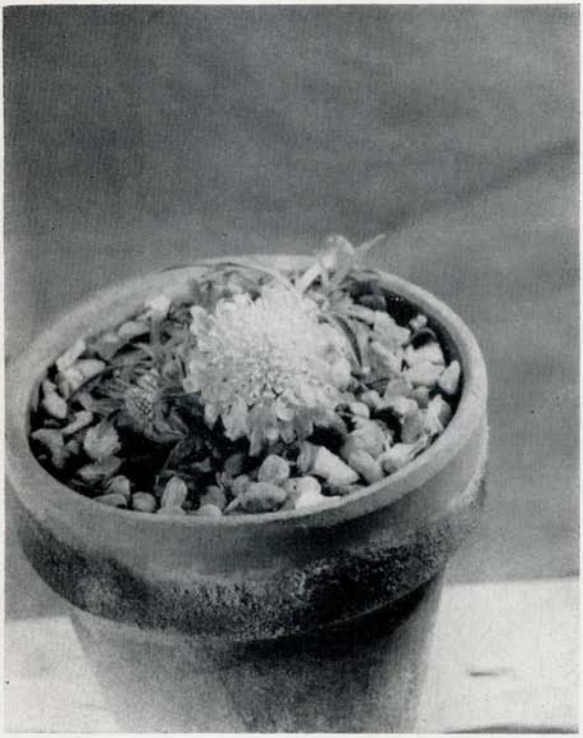
That indefatigable botanist, Linnaeus, listed and described briefly a large number of species. He divided the list into two sections—those with four-parted corollas, and those with five-parted ones. Today many European botanists place those that are four-parted in a different genus, which they have named Knautia. However the English "Dictionary of Gardening" still groups both genera under Scabiosa. To the casual observer both have similar-shaped flowers that are in heads, sometimes globular, sometimes rather flat. They range in color through red, pink violet, yellow and white.

We have raised four species of rock garden size, in that all of them are under twelve inches high. They seem easy to grow in a light well drained soil. Originally we secured seeds of *S. silenifolia* and *S. graminifolia* because Farrer, in his "English Rock Garden," recommended them highly. Of *S. graminifolia* he said it was "a pure joy on a ledge of the rock in dry, well drained soil, in a hot and sunny place." Much to our disappointment, *S. graminifolia* has not yet bloomed, although we have had it over a year. It is about seven inches high, and differs from all other species that we have raised, in that it has narrow, entire leaves, grouped toward the base. Most species have either lyrate or pinnatifid leaves, and very often the stem leaves differ in shape from the basal ones. Incidentally it is said to have lavender-lilac colored flowers.

S. silenifolia is about seven inches high, and for us has been very floriferous, both in the garden and in our little alpine house. In fact, in the latter place it bloomed all summer, and even as late as the first of November it had two flower-heads, of a light rose-violet shade. If one wants long summer bloom in the alpine house, this is an excellent plant. We have sent some seeds to our Society, so possibly a few of our members may have the opportunity of trying this plant.

S. lucida is about as tall as *S. silenifolia*. As "lucida" means shiny, the plant has really been misnamed, in that *S. silenifolia* has much more glossy leaves, whereas the leaves of *S. lucida* are dull silvery green: It also has rosy-lilac flowers, and the season of bloom is a lengthy one.

Possibly few of our members would expect to find a scabiosa that is only three inches high. A few years ago an English acquaintance sent us seeds of a scabiosa of which he did not know the specific name. Since then we have tried vainly to ascertain this. It has good sized delicate violet colored flowers, and the basal leaves are lyrate, whereas the stem leaves are pinnatifid. We are enclosing a photograph of this plant, and should be delighted if any of our members could identify it.



Robert M. Senior

A scabiosa of very compact habit, name unknown.

Last year our seed list included a so-called *S. variifolia*, and at the time the source of the specific name was apparently unknown. In this connection, we happened to see a book by Stefani, Barbey, and Major, published in 1899, describing the flora of a Greek island named Karpathos, in the Mediterranean about thirty miles southwest of Rhodes. This book contains a picture of *S. variifolia*. Considering the location of Karpathos, we doubt that the plant can be reliably hardy.

NEW ENGLAND REGIONAL GROUP MEETING

THE NEW ENGLAND REGIONAL GROUP met at the home of Mrs. Harry Hayward, Scarborough, Maine, on May 18. Members from Connecticut, Massachusetts, Vermont and New Hampshire came, and with husbands and guests, more than thirty were present. A plant exchange was featured. Mrs. Robert Manton, the Regional Chairman, presided at the business meeting There were reports from the leaders of the various Round Robins she has started, and a slate of officers was elected for the coming year; Mrs. Manton remains the chairman.

Mrs. Hayward's garden is reported to have been in top form, with her choice collection of auriculas and some magnificent specimens of *Gentiana verna* getting the lion's share of attention, while the many rare plants which she grows called for much comment.

Both before and after the meeting, visitors inspected many other gardens in the region, finding much to admire, and many plants were exchanged.

SOME NEW ROCK PLANTS WORTH GROWING

E. B. ANDERSON, *Porlock, England*

MAINLY THROUGH THE ACTIVITIES of professional plant collectors, many new plants have been introduced into Great Britain between the two wars and since, and probably just as many have been lost from wartime's inevitable neglect. Kingdom Ward, Ludlow and Sherriff, Peter Davis, and Williams and his colleagues are the names which come most readily to mind. However it takes many years to find out whether a plant is going to settle down in some part of our country where there are considerable climatic differences, though not as great as in your country. Further, until it does this, it is not possible to decide whether a particular plant is really worth growing. In talking of new plants I include re-introductions of lost plants which it is known are desirable.

This article only attempts to call attention to some of these plants which in my opinion merit attention by keen growers. Knowing little or nothing about soil and climatic conditions in the U.S.A., I cannot attempt to suggest methods of cultivation in your country, but do mention what are found successful here as some help.

Perhaps a not unimportant point is that the plants I mention are all available from nurseries here. There are many others in private hands, but until they become more widely tested and distributed, it is only aggravating to be told of them. For convenience they are recorded in alphabetical order.

Achillea, P.D. 16366, a beautiful silver ferny leaved plant for foliage effect, a few inches tall in a hot dry position.

Androsace jacquemontana, like a miniature *A. sarmentosa*, grey leaved rosettes and lavender pink flowers for a well drained sunny position.

Anemone media x *ballardii*, a hybrid introduced in 1939, by far the most vigorous of all hepaticas, with clear blue flowers, for shade and limy soil.

Asperula lilaciflora caespitosa and *pontica*, which are very similar, forming in sunny places bright green mats of foliage covered with deep pink flowers.

Cassiope. Several new cassiopes or new forms have been introduced recently. They are moorland plants and therefore require non-limy soil, cool air, and either snow or a cover to keep them on the dry side in winter. They will not stand full sun in lowland gardens without plenty of water but do not flower freely in full shade. Outstanding are *C. fastigiata*, Ludlow and Sherriff 17450, large flowered, dwarf and compact; *C. selaginoides* from the same collecting and from Kingdon Ward's; and *C. wardii* itself, with large flowers and hairy leaves which can make bushes one foot high. They cross readily when grown near each other and the hybrids are most promising garden plants.

Campanula betulaefolia, a lovely E. K. Balls introduction forming prostrate mats covered with large white or pink tinted bells, must be kept on the dry side in winter.

Celmisia, a neglected genus of New Zealand moorland plants preferring peaty soil and a cool or cold position. *C. spectabilis argentea* provides large spectacular clumps of bright silver foliage and large white daisies. A complete and charming contrast is *C. argentea*, a crevice plant looking exactly like *Saxifraga burseriana*.

Codonopsis convolvulacea with rich blue flowers and a crimson zone, and *C. vincaeflora*, similar but without the zone, are quite hardy, tuberous, slender climbing plants for climbing over any dwarf shrub. They like good soil.

Cyananthus: the forms of *C. lobatus* introduced by Ludlow and Sherriff seem to be much more vigorous than the old introduction but they must have a cool and reasonably moist situation. For dry areas *C. integer (microphyllus)* is a more rewarding plant. *C. sherriffii*, which dies back to a hairy tuft is difficult in areas of wet winters.

Delphineum muscosum is a perfect gem with deep violet flowers on three inch stems. Perfect drainage is essential.

Gentiana: the autumn flowering species from China and the Himalayas cross so readily that in a few years the original species may be lost to cultivation. Fortunately from the gardening aspect this matters little as the hybrids are just as beautiful and in general more amenable to cultivation. All except *G. farreri* require a lime-free soil and ample moisture during growth; they abhor drought. All are good, but outstanding are 'Farorna,' 'Fasta Highlands,' hexa-farreri, 'Inverleith,' 'Macauleyi,' and 'Stevenagensis.'

Geranium: it is not often that a good new geranium appears, but certainly *G. dalmaticum* is outstanding with neat clumps of glossy leaves covered with rich pink blossoms.

Erica and *Calluna:* new heathers are constantly appearing and the collector will want them all, but for the general gardener the outstanding introduction of recent years is *E. carnea* 'Eileen Porter,' very compact, long flowering in winter, with pink to carmine flowers.

Helichrysum marginatum from Basutoland is a wonderful silver hummock, quite hardy in scree, which strange to say does not mind winter wet. Its flowers are not always freely produced but this does not matter as they cannot add to its beauty.

Incarvillea: for many years we have been awaiting the introduction of the very dwarf large flowered *I. younghusbandii*. Several introductions have appeared under this name, but it seems that we still lack the true plant. However the imposters appearing as *I. grandiflora* L&S form and L & S species are excellent large flowered dwarfs of easy cultivation in well drained soil in sun.

Linum: useful and charming as many of this genus are, most of them have been in cultivation for many years. A recent introduction, *Linum* x 'Gemmel's hybrid,' a cross of *L. arboreum* with *L. iberidifolium*, is a free flowering golden dwarf for a hot sunny position.

Potentilla is a genus to which new additions rarely occur, but *P. eriocarpa*, introduced by both Ludlow and Sherriff and Williams is an excellent dwarf plant forming creeping mats covered with canary yellow flowers. It is easy in any sunny place.

Primula: probably among herbaceous plants the greatest number of new introductions has been in this genus—and also the greatest number of failures in cultivation. The Himalayan and Chinese dwarfs, particularly the petiolarids, amethystinas, nivalids and soldanelloides are only for those with cold winters and cool summers, with ample moisture in the spring. In mild winter areas they start growth too early and so exhaust themselves, and later may be subject to drought and dry air when they should be developing. In other areas summer heat, even in full shade and moist earth, can be fatal. In Scotland with its colder winters, except in a few areas, and cooler summers they do not present any great difficulty. Anyone having such a climate in the U.S.A. should try them, not excluding *P. griffithii* and *P. sonchifolia*, but always provide plenty of water in spring. *P. gracilipes* is the easiest of all.

Less exacting are the Sikkimensis section and the recent collections of *P. sikkimensis* itself should be sought, as every collector brought back a different and often superior form. *P. chumbiensis* with red flushed sulphur flowers and

reddish leaves is first class. An old plant, excellent in woodland, seldom seen now but worth seeking, is *P. megaseaefolia.*

Pulsatilla, the new name for the hairy anemones, has a newcomer in the yellow *P. caucasica.* In my opinion it is overrated as it belongs to the small flowered section, and although pale yellow, it is little effective.

Ranunculus: everyone knows the lovely white *R. amplexicaulis* of which one cannot have too many, and in raising from seed many petalled and pinkish forms may appear; but few know the equally lovely deep cream *R. ahrendsii,* a cross between *R. amplexicaulis* and *R. gramineus.* If you cannot get it, make the cross yourself. Both these like a good loam in sun and will stand feeding. *R. calandrinioides* from Morocco is a valuable early flowering plant for hot dry spots where it can dry out in the summer. Normally the flowers are white with a tinge of pink, but by selection it appears probable that a pink race could be evolved.

Rhodohypoxis is one of the best and hardiest small bulbs introduced from Basutoland. The new forms derived from *R. baurii* and *R. platypetala,* the result of 20 years' selection by the late Mrs. Garnett Botfield, are a great improvement on the original species. The best are 'Dulcie,' pale pink, 'Garnet,' red, 'Margaret Rose,' pink, lovely, 'Ruth,' white, 'Susan Garnett Botfield,' apple blossom. They want a peaty, leafy soil in full sun or partial shade with plenty of moisture when growing. To increase divide as soon as flowering stops.

Saponaria ocymoides rubra compacta is by far the best form of this useful plant, which will stand any amount of heat but not too much winter cold.

Soldanella is not an easy genus as far as flowering is concerned except in areas where it is snow-covered in winter, as during their rest period the buds are formed ready to develop as soon as the snow melts. Damp winters and slugs are the chief enemies. By far the best flowering in ordinary gardens and equally beautiful is *S. villosa* with reddish hairs on the petioles and pedicels.

This article is not intended to be exhaustive, but merely to indicate a few of the newer plants which in my opinion are worthwhile to try in any gardens where the conditions appear suitable. Experiment is the only answer to the query, will it do with me?

SOME PETS AMONG THE WESTERN NATIVES

DR. HELEN C. SCORGIE, *Harvard, Massachusetts*

FAVORITES HERE ARE SELDOM SPECTACULAR. In a garden devoted to the smaller, more retiring rock plants, the gaudier westerners are out of place. These are quiet plants, mostly with flowers of delicate coloring, of good substance: shapely plants, not aggressive and of fascinating design.

The west coast spring beauty, *Montia sibirica,* resembles the well-known spring beauty of the east but is a sturdier plant with a succulence suggestive of a small begonia. The flowers are smaller than those of the eastern plant, white with the peppermint candy pink stripes that the Portulacaceae like so much to display. It is the largest flowered and best of the western montias.

It begins to bloom just as the last flowers are coming out on its eastern cousin, and continues to bloom freely for two months, then off and on for the rest of the summer. It seeds freely though it is difficult to catch the ripe seed. But seedlings appear all around it and bloom the first year.

It is growing on the edge of my shade garden, cut off from the morning sun

but with no overhanging branches between it and the sky. There is little direct sunshine falling on these plants but the sun's rays, reflected from the waters of the pond, pervade the area.

Near the montia but in somewhat more shade is a mat of delicate shining leaves, trailing flat on the ground. This is *Rubus nivalis*, which has been in the garden for three years but has never bloomed. Perhaps it never will in what, to it, is a foreign land. Yet it is increasing and seems not to resent either the dry summer heat or the below-zero drops in the temperature, sometimes with bare ground.

Perhaps it will be disappointing when it does bloom. But it has more than paid for itself in the beauty of its shining little oval leaves. It forms a carpet at the entrance to my woodland garden, where it gets at most a diffused light from the slanting rays of the afternoon sun. As throughout my woodland area, the soil in which it grows is deep humus, subacid and well drained. Its flowers are said to be purplish red; the fruit, bright red.

Not far away from the snow bramble but in deep shade, the queencup, *Clintonia uniflora*, is spreading itself around. The leaves are much like those of the other clintonias, rosettes of three broadish leaves at an angle of 45° to the ground. It spreads like all clintonias by subterranean running rootstocks which send up infants at some distance from the mother plant, so that one does not get a groundcover effect, but rather that of numerous little plants growing separately.

In May, the flower stalk rises six inches above the rosette of leaves and is topped by a single luminous white flower of heavenly substance. It is an exquisite delight, the loveliest of its genus. Farrerian superlatives are needed to describe it but apparently Farrer knew it not.

Nearby grows a miniature form of the maidenhair fern from the west coast. It seems distinctive enough to be separated from *Adiantum pedatum*, but I do not know the botanical decision on this point. Certainly, for the garden, it is quite unlike the native maidenhair. It rises only a few inches from the ground, is of firmer texture, flatter on top than our maidenhair and more compact. It has no special requirements other than those of other acid-loving ferns, and appears to be perfectly hardy in this locality.

Away from the shade of the old white pines, conditions are very different. On the south slope of the rock garden, the soil is gravel mixed with some compost, and very little shade reaches it. It is beloved by all the small fry of the bulb world who like warmth, a lean soil, and perfect drainage. Each year, in late spring, the fragrant sand lilies, *Leucocrinum montanum*, nestle close to the ground in their nests of vivid shining leaves. The white flowers are of heavy substance and dazzling in their reflection of the sunlight. They are relatively large and appear to be growing close to the ground. The tube, however, is very long and slender, and the flowers come from a subterranean rootstock and are stemless. Most of the perianth tube is below the surface.

The individual flowers are of rather short duration but new ones keep appearing so that the plant is in bloom for a considerable length of time. This plant comes from arid plains and sunny mountain slopes, and once established seems to take with ease all the abuses that the New England weather can offer it. Although it gets along with practically no care, it should have excellent drainage, full, hot sun and a meager diet. It is necessary, however, to watch that no rampant plants come near it. Perhaps its happiness here is due in part to an equal dislike of exuberant plants on the part of the gardener.

WIDENING THE USE OF ALPINE PLANTS

DORETTA KLABER, *Quakertown, Pennsylvania*

MY BEDSIDE READING for years on end has been Reginald Farrer's "The English Rock Garden." The two volumes have been rebound once and need it again. But in spite of my devotion and the unending debt I feel that I owe him, I think that he had one bad influence on the use of his beloved plants. He, probably more than any other writer, fostered the idea that a rock garden should not be visible from the house, that it should be a secret sort of garden that one came on with surprise, and that it should look like a bit of alpine slope or meadow, rocky hillside or outcropping in dell or valley. Many are the lovely gardens that have been built along these lines, but it seems to me that this is limiting the use of these wonderful plants. They are far too interesting in their manner of growth, and the evergreen or evergrey foliage so many have is too valuable for them to be relegated to hidden corners.

Many of us, of course, have emancipated ourselves from this restrictive idea. In my home we face a rocky hillside, 100 ft. by 75 ft., visible from porch and living room and kitchen-dining-room. It has a background of trees and shrubs. What is more natural than to plant it as a rock garden—some shrubs, a few evergreens, but mostly rock and alpine plants? We enjoy its changing beauty from indoors as well as from out. We have also a dooryard garden, below the level of the driveway. A dry wall, steps, and shelved slope make up the difference in grade. Except for a bit of lawn and a few shrubs this whole area is planted with rock plants. The space, only 18 ft. by 35 ft., could be one's entire available land for planting, for it alone would make a satisfactory garden. A stepping stone walk leading to the entrance is embedded in plants, as are the steps, the slope and the wall. This is an old house: it seems to me that the new homes, with their emphasis on glass and indoor-outdoor relationship, call even more strongly for the generous use of these splendid plants, so many of which need to be seen close at hand to be enjoyed and appreciated fully. So why not plant them on the terraces, along the steps, in the patios and walled areas, in the planting space close to the house? Small trees, broad and needle-leaved evergreens, deciduous shrubs all have their place, and we cannot do without them. But whether in sun or shade, these rock plants which appeal so strongly to all of us can furnish the surroundings close to the house; they can be used as ground covers or accents or edging plants. The extra precious rare alpines are happiest in a wall or some sheltered nook. Just for fun I have counted the number of species and hybrids now growing in the small area between house and drive. They vary somewhat over the years, and something new is always being added. They give a succession of bloom all season, without my trying very hard to have it so. They add up to over 135 separate species and hybrids, some common, some very rare, some in ones or twos, some in quantity.

We must all hear people say "These plants are lovely, but I can't grow them, for I have no rock garden." I believe that our Society would grow enormously if we all tried to spread the idea that one does not need to have a rock garden in order to grow alpine plants. The gritty soil they like can be incorporated anywhere, while those that need the association of stones can get it in walks, stone edgings, walls, terrace paving, or special shelves built for them. No one should cheat himself of the pleasure of growing these alpines close at hand. Don't you agree?

PLASTIC WATER PIPES FOR THE ROCK GARDEN

J. P. ZOLLINGER, *Brooklyn, N. Y.*

ACCORDING TO THE books a rock garden is never supposed to be in the close neighborhood of a house but at some distance from it. This may be good advice from the landscaping point of view but it may add considerably to the burden of upkeep, especially if no water is available away from the house.

In our own case, carrying water in sprinkler cans and buckets to parching alpines and newly set out plants was always a heavy chore. When, therefore, after a spell of illness I found myself very reluctant to face that drudgery again, I decided to pipe water right to the top of the rock garden. Not so many years ago such a project would have been an expensive luxury, so expensive indeed—in rocky ground and in a climate where metal pipes are expected to be buried three feet deep—that for at least a twelve month period champagne would have been cheaper in the rock garden than piped water. But what a few years ago would literally have been a mere pipe dream has moved out of the luxury class with the advent of flexible plastic (polyethylene) tubing. Almost every gardener has read about its use for lawn sprinkler systems. I found it even more valuable to distribute water through the rock garden.

The advantages of flexible plastic tubing over metal pipes are fourfold: 1. The material is inexpensive. 2. The flexibility of plastic pipe allows bending it around obstacles in the ground, such as rocks and big roots. 3. It is frost proof, meaning sufficiently elastic to yield to the expansion of freezing water and to contract again in the thaw. It therefore need be buried no deeper than a few inches. 4. The putting together of a plastic pipe system is very simple and requires neither special skills nor special plumber's tools. The pipe can be cut with a knife. Almost anybody can do the work.

The greatest saving in working with plastic pipe (as compared with the traditional metal pipes) is in labor. Thus four or five hours of light work distributed over a number of days and a cash outlay of about fifty dollars brought running water to our rock garden. The fifty dollars was paid for four hundred feet of half-inch tubing (only half of which has been used so far), the necessary fittings, connections, faucets and a shut-off valve. The unused part of the tubing will later furnish branch lines, so that in time water need never be carried farther than fifteen feet, and completely eliminate the use of the hose, which is a nuisance in the rock garden.

But almost the most exciting part of the innovation is that it has made possible a rock garden "moraine" (in Farrer's sense), that is, an excavation filled with stones, gravel, chips and a by-mixture of humus constantly kept moist by subirrigation. Half of it is already built and by summer it should be ready to receive its first occupants.

There seems to be little or no risk involved in the use of plastic pipes. Department of Agriculture technicians recommend them for all cold water farm use and the only drawback they have discovered is that exposed pipes may be chewed up by porcupines. Also, since it is still uncertain just how many freezes plastic pipes will stand, it is advisable to provide for the possibility of draining them before winter.

It is especially worth stressing that, since plastic tubing can be laid under a very shallow soil covering, it may be brought into established rock gardens

without the ruinous upheaval which deep trenches would entail. In stoneless ground and lawns, in patches covered by mat-forming herbaceous plants, a wedge-shaped cut, made by a spade pushed into the soil and moved back and forth a little, is all that is required to receive the pipes. When these are laid, the cut is closed again with one's feet and the narrow scar is soon covered by fresh growth. Where porcupines are not one of the gardener's wildlife problems, the pipes can easily be run through evergreen groundcovers without digging.

ROCK GARDEN LILIES

ALIDA LIVINGSTON, *Oyster Bay, Long Island*

THE RECURRENT TOPIC OF LILIES for the rock garden has been in abeyance for a while and so I venture a few comments, mostly from the lily point of view.

All lilies, like earnest social climbers, aspire to lodge in rock gardens; denied entrance some will pine away and die, but not all can show the right credentials. The majority are obviously too tall, equally unsuitable are those whose flowers are too big and too ornate; there remain those shy, fastidious species which need the special growing conditions and particularly the skill and obstinancy of the inveterate rock gardener.

L. bolanderi from our summer-parched western hills will probably survive on the east coast only in a sunny gravel scree with a bit of moisture seeping below. It is a dwarf rarely over a foot high, often less; the blue-green leaves have a waxy bloom and are decorative all summer; in late June and early July it hangs out bright little crimson bells.

In nature *L. philadelphicum* is the most widely distributed of our native species; it is also the hardest to domesticate, for collected bulbs seldom "take hold," though usually they have enough vigor to bloom once. Contrary to some opinions, it is long-lived. Raising seedlings is tedious but rewarding, for the little bulbs can be placed, while young, where they are wanted. Sometimes single-leaf seedlings can be found around mature plants in the wild, and these are the ones to take. Though it has been called the wood lily, *L. philadelphicum* is never lovelier than as I have seen it growing in potholes on exposed granite mountains in Maine. Moisture and a bit of humus collect in these depressions, and the frost makes cracks down which the roots find their way. In such spartan conditions the stems are six to eight inches long and carry a solitary flower.

The foreigners are often difficult to procure as bulbs, sometimes impossible. Seedlings are a challenge, but rock gardeners revel in challenges. The garden forms of *L. martagon* are far too tall, but it is not impossible to get seeds from the European Alps which will produce slender, interesting variants, some with very woolly buds which push up already formed almost as soon as the snow melts. *L. pomponium* comes from the mountains of southern France and Italy but is perfectly hardy, insistent on rocks and with an affinity for lime not shared by all lilies. It has the most brilliant scarlet flowers rolled back into tight little balls, and almost grey, narrow leaves. *L. chalcedonicum* has graced European gardens for centuries but seems to be getting scarcer — maybe all available bulbs have virus. There is a crying need to raise new seedlings, an undertaking which calls for both patience and longevity. The flowers are a glorious scarlet, but there is a complex of relatives *(LL. jankae, albanicum, carniolicum)* in various shades of yellow and gold, all alas behind the iron curtain.

The newer Himalayan species are little known and some are tall: A few talented gardeners in England and Scotland seem to be making friends with *L. oxypetalum* and *L. sherriffae*. *L. rubellum* does not have perfect rock garden proportions, but its smallish pink trumpets are so exquisite and bloom so early that it may well lay claim to a very well drained yet moist and humusy spot at the foot of a cliff; if satisfied it will increase, perhaps outliving its owner. *L. cernuum* is certainly too tall, two feet or sometimes three, but the flowers come in July and are a lovely rosy lilac, while the foliage is grasslike. This is an easy one to grow from bulbs or to raise from seeds, both procurable at reasonable prices right on the continent of North America. Perhaps even rock gardeners tire of constant effort in searching for treasures, and will welcome a treasure that is readily available.

REPORT FROM THE SEED EXCHANGE

The Seed Exchange did a flourishing business during 1958 and, hopefully, pleased most of its participants. From the 102 contributors in the United States, Alaska, Canada, Europe, Japan and New Zealand, we were able to fill over 250 orders from the original listing of 1040 different items. Then, with no time for a "breather," we answered 37 requests for seed from the supplemental list and over 50 orders for surplus seed. We took in nearly $150.00, not counting the numerous remittances in stamps, and incurred expenses for stationery, etc., of $46.56, as well as additional outlays for domestic and overseas postage. We wish to acknowledge all those who sent us wise counsel and encouragement; in particular, we must thank all those members of the Northwest Unit who worked long hours by day and night on the Exchange . . . and in the commissary!

By the time this note is published and being read by the membership, we will be approaching the November 15 deadline for the receipt of seed for the 1959 Seed List. Should you forget this reminder, let the rustle of dry seed pods in the autumnal winds spur you into action. The procedure for sending in seed to the Exchange was outlined in the July, 1958 number of the *Bulletin*. Send seed to the Director of the Seed Exchange, Dr. A. R. Kruckeberg, Department of Botany, University of Washington, Seattle 5, Washington. Remember that only those seeds received (or promised) by November 15 can be listed in the Seed Exchange. There will be no Supplementary List in 1959.

A. R. K.

THE SOCIETY AS A SOURCE OF GARDEN BOOKS

AT THE ANNUAL MEETING, considerable interest was expressed in a proposal that the Society offer for sale worth-while garden books, both old and new. Many of the most desirable books on rock gardening, by Reginald Farrer, Louise Beebe Wilder, and other writers, are not only out of print, but rarely available through book dealers. It is felt that by contacting sources in this country and abroad, many books which have long been on the "want list" of members could be made available. The slight profit which the Society would make on these transactions would be used to offset the constantly rising cost of printing and engraving, and enable us to continue operating the Society without increase in dues. Watch for further announcements.

AMERICAN ROCK GARDEN SOCIETY
TREASURER'S REPORT

Year Ending March 31, 1958

Cash in bank at March 31, 1957			$2,963.65
Receipts for the year:			
Current dues—1957		$ 866.39	
Prepaid dues—1958	$1,429.00		
1959	103.00		
1960	61.00		
Life membership	100.00	1,693.00	
Advertising in Bulletin		145.07	
Sale of Bulletins		209.50	
Seed exchange		87.85	
Plant sale		28.15	
Gift		30.00	
Sale of cuts		7.72	
Interest on savings account		30.97	
		$3,098.65	
Disbursements:			
Bulletin expenses:			
Printing	$1,354.00		
Cuts	168.62		
Mailing and postage	182.50		
Editor's compensation	300.00		
Mailing permit	20.00		
Total Bulletin expenses	$2,025.12		
General expenses:			
Secretary's compensation	$ 312.50		
Printing and stationery	162.37		
Postage	74.73		
Seed exchange printing	160.00		
American Horticultural Society dues	10.00		
Telephone	9.24		
Office supplies	8.36		
Cornell Rock Garden bulletins	20.00		
Printing membership list	203.00		
Total General expenses	$ 960.20		
		2,985.32	
Excess of receipts over disbursements for the year ending March 31, 1958			113.33
Cash in bank at March 31, 1958:			
Citizen's First National Bank & Trust Co., Ridgewood, New Jersey:			
Checking account		$1,946.01	
Savings account		1,130.97	
			$3,076.98

Respectfully submitted,
Alex D. Reid,
Treasurer

THE TWENTY-FOURTH ANNUAL MEETING, 1958

EDGAR L. TOTTEN, *Secretary, Ho-Ho-Kus, N. J.*

ONE OF THE LARGEST GATHERINGS in the history of the Society, eighty-eight members, attended our annual garden tour and members' meeting on May 24.

Three gardens were visited. The first, in the forenoon, was that of Mr. and Mrs. Jerome A. Lukins at Port Chester, N. Y., where many rare and beautiful plants and miniature conifers were seen. We learned many lessons in the landscaping of an otherwise unsightly natural outcrop.

After leavig the Lukins' garden, a stop was made at Emily Shaw's Inn at Pound Ridge, N. Y., where a most appetizing lunch was served, followed by our annual members' meeting and the election of officers and directors.

The nominating committee, composed of Mr. Lukins as chairman, Mr. Henry R. Fuller, Mrs. Ruth Gruitch and Mr. Walter Kolaga, submitted the names of the present officers and directors who were unanimously reelected, the officers for a two-year term and three directors whose terms expired this year for a three year term.

The next garden visited was that of Mrs. Mortimer J. Fox at Mt. Kisco, N. Y. This very spacious garden contains a choice collection of rock plants, azaleas, rare shrubs, herbs, etc. A plant sale had been planned for Mrs. Fox's garden and the members were so eager to obtain some of the choice things that, it had been hinted, were in the collection that I fear not all of us had an adequate opportunity to inspect the interesting plant material in her garden. However, not one plant remained unsold and your treasury is richer by $149.25 as a result.

The last garden to be visited was that of Mr. and Mrs. Frederic V. Guinzburg at Chappaqua, N. Y. Here we saw another example of what can be accomplished in beautification of those enormous Westchester County rock outcrops with scant quantities of soil. The Guinzburgs have decorated them most artistically by the blending of various colored sempervivums and well behaved sedums to resemble a Persian carpet.

It is with deepest regret that I have to announce the passing of four of our good members: Mrs. Walter D. Blair, Mrs. G. R. Marriage, Miss Fanny Hill, whose obituaries have already appeared in the BULLETIN, and Dr. Louis H. Frechtling of Hamilton, Ohio, a charter member of the Society.

At our last annual meeting, I reported a paid membership of 636. I am happy to report that this number has now increased by 64 to an even 700. If to these we add the second member of the family memberships, the figure is then 777. When we take into account the honorary, complimentary, and exchange memberships, we have a grand total of 808. The actual increase in memberships during the year was 104. Forty were dropped for non-payment of dues in accordance with our by-laws, leaving a net gain of 64.

The majority of memberships which are so helpful to the finances of the Society are located in and around Seattle. A few more family memberships here in the east would probably relieve our financial pressures. Why not a life membership for you younger members? One new life member was obtained during the year. We now have members in all states except Mississippi, Wyoming and North Dakota.

We recently had our first new member from the Union of South Africa, and a new and very enthusiastic member from New Zealand, who made a most generous contribution to our seed exchange. She is Mrs. A. W. McKenzie of Masterton and is the mystery contributor referred to in the April BULLETIN.

A few days ago I received a very interesting and lengthy letter from her in which she tells of rock gardening in her country. Excerpts from this letter will appear in the BULLETIN.

We have not yet received the report from our Seed Exchange Director, because of the late arrival of many seed packages which necessitated publishing a supplementary list in the April BULLETIN and extending the closing date of the exchange. This year's list was the largest we have had and compares favorably with those of the two overseas societies.

I feel that you are not making sufficient use of our slide collections. Only two members have used them in the past year. When we say that they are intended for showing before garden clubs and other groups, we do not mean that an opera house or theatre should be hired for the purpose. A gathering of a few enthusiastic members at your home is sufficient. By next spring, a third collection will be available.

Next year we are to celebrate our Silver Anniversary. We will at least try to place a silver cover on the April issue. Let's put a bit of silver on the inside pages as well. Your contribution of articles will accomplish this and make it the greatest issue we have had.

SALMAGUNDI

THE DIRECTOR of the Seed Exchange wishes to remind you that the deadline for receipt of seeds to be listed in the next Seed List is *November 15*, and that no supplementary list will be compiled. Don't delay: clean and mail those seeds now!

Members who request only the choicest and rarest items must be prepared for a certain amount of regrettable, but inevitable, disappointment. The most desirable kinds are usually available in very limited amounts only; Mr. Harkness once told us that at least one contributor of especially interesting sorts rarely sent enough seed for more than one or two packets of a species, and that as a rule none of these was sent by any other donor. He eventually worked out a scheme that limited members to one or two of these really scarce sorts. One person has protested the receipt of less than half the number of packets sent another member. Knowing the taste and intelligence of the first member, we can safely assume that this person's selections were all of the rarer kinds, which it was necessary to ration in order to have a fairly equitable distribution of them.

It is unsafe, we have found, to underestimate the knowledge of our members. A few years ago there was a species offered which had not appeared in any seed list for many years, and which had never, to our knowledge, been available as plants in this country. When we marked it on our list, we hoped that no one else would appreciate its desirability. Almost everyone requested it!

* * * *

The increase in membership reported by the Secretary is most satisfactory, but even more gratifying are the reports of attendance at the annual meeting and that of the New England Unit. The demand for choice seeds suggests that more and more members have passed the stage where they are content with *Phlox subulata*, alyssum, arabis, sedum and sempervivum. Garden visitors this spring have shown an awareness of, and interest in, rare plants that in the past have gone unnoticed. A discussion meeting on rock gardens at the Ithaca Garden Center was well attended by alert gardeners who had a multitude of intelligent questions. All these factors suggest that rock gardening is really coming of age in this country, and that the twenty-fifth anniversary of the or-

ganization of our Society will mark the beginning of an era where the enthusiast will be the rule, not the exception.

* * * *

The other day we were thumbing through some old catalogs, and came across one which listed fourteen androsaces, including *A. spinulifera* and *A. carnea laggeri*, twenty campanulas, among them *C. allionii*, while another had forty-one bellflowers of species suitable for the rock garden, twelve dodecatheons, seventeen gentians, fifty saxifrages, thirteen daphnes, and a host of other treasures. British catalogs, of course? No, they were those of our own nurserymen in the late 1930's—William Borsch and Son, Green Pastures Gardens, Mitchell Nurseries, Cronamere, Rockmarge. Those were the golden days!

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Dr. Scorgie's suggestion, in the July BULLETIN, of the use of ferns as relief from too much color in the spring garden leads us to wonder whether she, or other members, may ever have considered using thalictrums for this purpose. Many, or perhaps most, at least of our American natives, are too tall for this purpose, but there are several of relatively dwarf stature which seem little known, and which have much the same effect as the maidenhair fern, while their flowers are relatively inconspicuous. *T. chelidonii*, from the Ludlow and Sherriff collections, is as delicate as the choicest fern; its flowers are brownish and inconspicuous and may be removed if one does not desire seed. There are others worth investigating, which will grow in sunnier and drier places than most ferns will tolerate.

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The report, in the July number, of the demise of *Mertensia pterocarpa* was decidedly premature. It wishes to announce that it was merely sleeping late, and is now more vigorous and handsome than ever. Apparently the great snowdrifts had an anaesthetic effect on many plants, for the same species, in different parts of the garden, varied by as much as a month in making its appearance. Eventually most of the precious ones have appeared—except those on a bank ravaged by mice—although some were not visible till early June.

* * * *

Now—at once—is the time to join the Alpine Garden Society and the Scottish Rock Garden Club, if you are not already a member, in order to participate in the 1958 seed distribution. The seeds you will receive are worth many times the cost of membership, and the publications are invaluable. Or, if you are already a member, how about a gift of membership in our own Society or in one of the British ones, to a garden-minded friend?

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