

The Journal
OF
The Scottish
Rock Garden Club

Editor—J. L. MOWAT, University Botanic Gardens, St. Andrews



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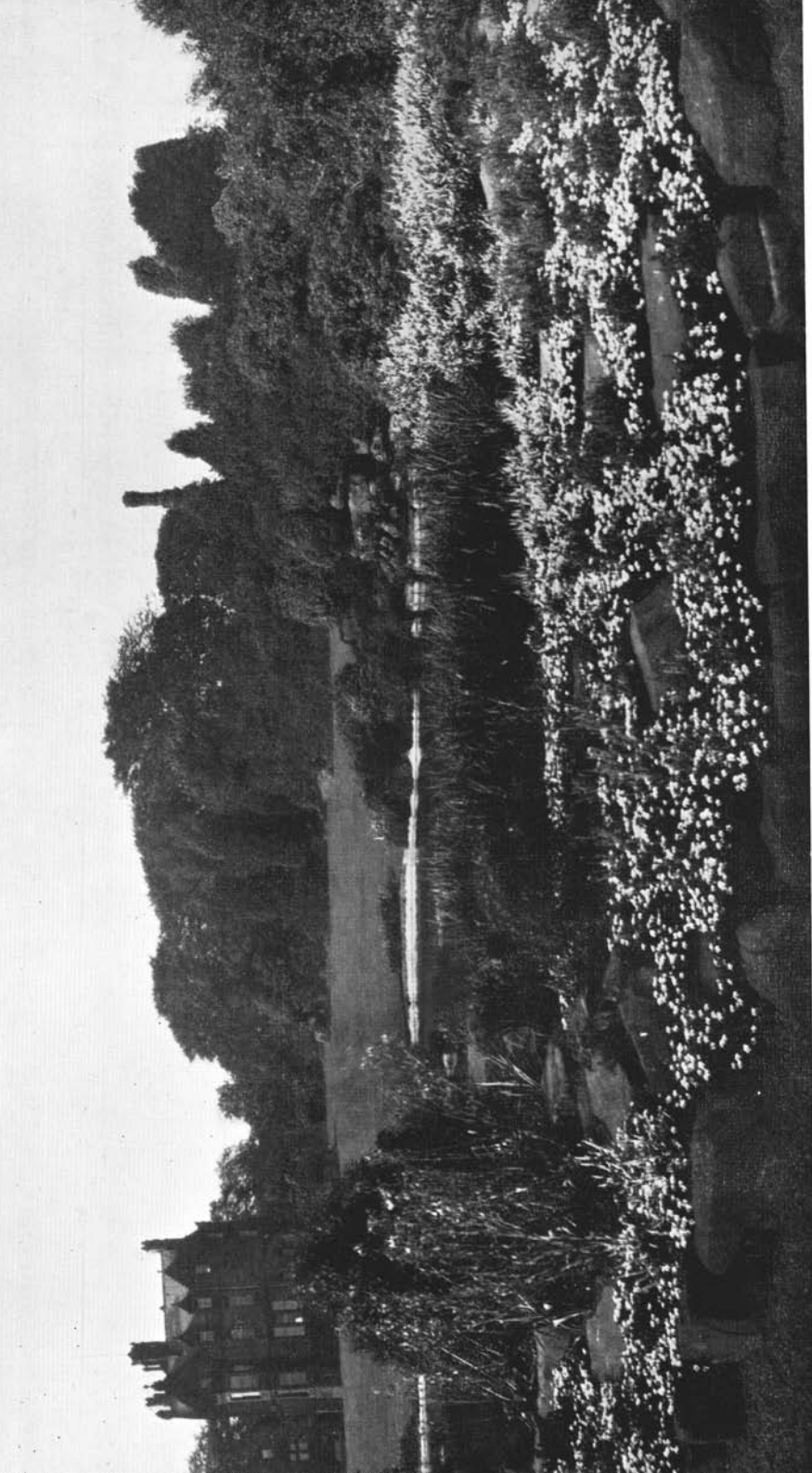


Fig. 1 — *Gentiana sino-ornata* in rockwork at Ross Hall, September, 1933 (see page 11)

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Chief Contents

| | PAGE |
|--|------|
| Editor's Notes - - - - - | 3 |
| Note from the President - - - - - | 5 |
| Discussion Week-end, Pitlochry - - - - - | 6 |
| Notices - - - - - | 7 |
| Obituaries - - - - - | 8 |
| Clarke Memorial Lecture, by O. Polunin - - - - - | 12 |
| Rock-Gardener's Alphabet, by C. R. Nodder - - - - - | 18 |
| From the High Hills, by A. W. Anderson - - - - - | 20 |
| Starting from Scratch, by W. Urie - - - - - | 23 |
| Confessions of a Rock-less Gardener, by C. Anderson - - - - - | 25 |
| A Few Trilliums, by Stewart Mitchell - - - - - | 30 |
| Notes from My Garden, by C. M. Crewdson - - - - - | 33 |
| In Search of <i>Daphne petraea</i> , by H. Esslemont - - - - - | 34 |
| Letters, Plants, and Problems - - - - - | 35 |
| Show Reports - - - - - | 41 |
| Midlothian Week-end - - - - - | 51 |
| Group Activities - - - - - | 52 |
| Discussion Week-end, Kilmacolm - - - - - | 58 |
| Book Review - - - - - | 65 |
| Index to Advertisers - - - - - | 67 |

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Editor's Notes

ANOTHER International Rock Garden Conference has come and gone and we think we are quite safe in saying that everyone who took part in any way whatsoever found it a thoroughly enjoyable experience. Certainly for those intimately concerned with its organization and administration there was the usual crop of minor frustrations and unforeseen problems, but co-operation between the two bodies chiefly concerned seemed to be excellent and everything sorted itself out smoothly.

Members of the two bodies, the A.G.S. and S.R.G.C., whose duties brought them together, gained much pleasure from the experience, and it was a further enjoyment to meet or meet again so many old and new friends from overseas. It was evident too that our overseas visitors for their part were also thoroughly enjoying the visit, and it was often amazing to see how language problems were overcome. All parted with regrets and good wishes at the end of the Conference and expressed the hope and intention of attending the next one whenever it might be; Mr. Saxe of San Francisco was particularly emphatic that he would be there. The papers given by leading plantmen of nine or ten countries were of an extremely high standard indeed and ensuing discussions were keen and to the point.

Our Discussion Week-ends are really conferences in miniature and in their own way quite as instructive and enjoyable, with all the gain and pleasure that intimate fellowship between Club members brings. The week-end in Kilmacolm last October seems to have exemplified this to perfection and to have set a new standard in these occasions which grow ever more popular. It was agreed that the week-end in Pitlochry in October '61 was an outstanding success with over sixty members attending, but the attendance at Kilmacolm topped the ninety mark.

This gives the Midlothian Week-end in March and the Pitlochry Week-end in September an ambitious target at which to aim. The Midlothian Week-end is admittedly something in the nature of an experiment, since it deliberately sets out to cater chiefly for the ordinary member of limited rock-gardening experience rather than the more knowledgeable. On the other hand, speaking from memory, it is the first Week-end to be run in conjunction with a Club Show—that of Penicuik. This fact should greatly add to the interest of the week-end and provide a fund of additional material for discussion.

When the Club was founded in 1933 none of that select body of founders could have foreseen to what extent and in what directions Club activities would grow. Certainly they had in mind an annual show, or perhaps shows, but they would indeed have been optimistic to have envisaged shows in nine different centres as we have now,

and a hefty programme of winter (and summer) meetings organized by groups throughout Scotland and over the border. Discussion weekends came on the scene much later than the aforesaid activities, but already they have firmly established themselves as a popular part of the Club's work. What that keen founder-member so recently lost to us, R. E. Cooper, would have thought about these innovations we cannot say—for several years he was out of touch in the south of England—but we imagine that he would have entered into these several developments with his well-known enthusiasm.

While these aspects of the Club's life have been flourishing the business side has been occasioning the Council considerable thought. The steady growth of the Club, in addition to bringing in increased finances, has involved increased expenditure and at the same time greatly increased work and responsibility for its honorary office-bearers; a small body of two or three hundred is much more easily handled than one of well over three and a half thousand.

The annual subscription has remained unchanged for so long (1947) that there can only be a minority of members who remember when it was different. This state of affairs has only been attained by the most rigid thrift and economy on the part of the Club's successive officials while all around them prices kept rising steadily year by year. Prices of paper, printing, stationery, postages and fares have all risen several times, as has the cost of necessary work such as joinery and lighting connected with Club shows, and in the case of our two major shows the hall rentals charged now would have seemed a fantastic nightmare ten or twelve years ago.

The consequence of all this is that the Club has been compelled to draw on its reserves to an extent where those reserves are likely to disappear altogether by another year. All this goes to show how important it is that members should take a keen and thoughtful interest in the business affairs of the Club and the working of its Council, attending general meetings whenever possible. The Council without exception are out to do their best for the well-being of the Club, but sometimes they must feel that they would appreciate a keener and more active interest by the members in general.

The cost of publishing the Conference Report has been such that it has been found necessary to reduce temporarily the size of the *Journals* slightly. At the same time the Council has under consideration further cuts in expenditure. One of them is the discontinuance of the *Year Book* in its present form, bringing it down to its first 44 pp. and omitting the List of Members and all advertisements; reducing the *Year Book* thus to one third of its present size would also cut down postage costs. Lists of new members will be issued regularly to C.R.s, and the full List of Members will be printed in the *Year Book* at intervals to be decided. Members should therefore keep their present *Year Book* by them for future reference.

The Editor makes his usual plea for more contributions to the *Journal* and also for the submission of black and white and colour photographs. In this respect a member has sent in the suggestion that the Club might have an annual competition for black and white and also coloured photographs, suggesting that in addition to helping out the Editor and the *Journal* it would also arouse considerable interest in itself.

What do members think of this suggestion ?

St. Andrews, *April* 1962.

A Note from the President

As the Editor says in his note, the Club, after weathering the War and the subsequent very rapid development, has now reached the point where costs have risen so very much that it is faced with running expenses that it cannot meet without drawing on its somewhat slender reserves very heavily. The Council has discussed this question at great length and in November proposed to the Annual General Meeting that the subscription should be raised. At that time the full accounts of the Club for the year were not finally available, and the recommendation went forward with a minority of the Council dissenting, and the A.G.M. rejected the proposal by a narrow majority. At a subsequent Council Meeting, this matter was perforce raised again, and with the full gravity of the position before them, the Council agreed unanimously to propose once again, and this time to a Special General Meeting to be called by the Council, that the subscription be raised to £1. This decision has only been reached after the most stringent programme of economies has been drawn up, but it is still felt to be necessary, and I would appeal to as many members as possible to attend this Meeting which is convened in the notice sent with this *Journal*, and to support the proposal by the Council.

I think we must face the fact that if we do not get the increased income to meet the rise in running costs we must either cut down our publications and eliminate the more costly Shows, or else face the probability of closing the Scottish Rock Garden Club down altogether. May I appeal for your support of the Council's recommendation ?

HENRY TOD

Was it coincidence that on one of the Church Offertory envelopes used, as often happens, to send in contributions of seed, was printed the following text : "He that soweth little shall reap little ; and he that soweth plenteously shall reap plenteously." ?

Discussion Week-end

29th-30th SEPTEMBER 1962
FISHER'S HOTEL, PITLOCHRY
PROGRAMME

Saturday 29th :

2.30 p.m. Opening Address

2.40 p.m. "Tulip Species"

J. S. Gilmour, Esq., M.A., M.V.H., F.L.S., Cambridge

4 p.m. Afternoon Tea

5 p.m. Discussion Period

Two introduced subjects, and the rest "open to the house"

(a) "Feeding a Rock Garden, especially Scree"

Discussion opened by :

Dr. James Davidson, F.R.C.P., West Linton

(b) "Most allegedly Dwarf Conifers are Phoney and more Bonsai subjects than Rock Garden Plants"

Discussion opened by :

Alfred Evans, Esq., N.D.H., Royal Botanic Garden, Edinburgh

7 p.m. Dinner

8.15 p.m. "Some European Alpines in their Native Habitats"

Dr. Duncan M. Morison, F.R.C.S., Edinburgh

Sunday 30th :

10.15 a.m. "The Peat Garden and its Plants"

E. E. Kemp, Esq., M.B.E., N.D.H., Royal Botanic Garden, Edinburgh

11.20 a.m. Break

1.00 p.m. Lunch

2.30 p.m. "Alpines we have loved and lost"

Reginald Kaye, Esq., Silverdale, Lancashire

4.00 p.m. Tea

5.00 p.m. Close down

SUNDAY MORNING BREAK

During this time visits to one or two local gardens will be arranged for those who would care to visit them.

CHARGES

| | | |
|-----|--|--------|
| (A) | RESIDENTS for the whole week-end, including full board and accommodation from 2 p.m. Saturday till 5 p.m. Sunday | £3 3 0 |
| (B) | NON-RESIDENTS for whole week-end, including meals, but WITHOUT Bed and Breakfast .. | 2 2 0 |
| (C) | NON-RESIDENTS. Each single lecture, NO meals | 0 3 6 |

These charges include share of expenses and gratuities.

RESERVATION FORMS

These may be obtained from Mrs. T. A. Stuart, Millglen, Baledmund Road, Moulin, Pitlochry, and should be completed and returned to her, accompanied by the appropriate cheque, as early as possible.

N.B.—All the accommodation in Fisher's Hotel has been reserved for the S.R.G.C. Week-end. When all rooms are booked, no further bookings will be accepted.

Those who wish Hotel accommodation before and/or after the official week-end (i.e. other than Saturday night) should state their requirements and the accommodation will be booked for them. Such extra accommodation will be paid for direct to the Hotel by the person concerned.

Seed Distribution 1961 - 62

ANOTHER Seed Distribution has been completed and, thanks to the generous donations of seed from about 160 members, many thousands of packets have been sent all over the world. Most sincere thanks are due to these donors and also to the members who have given many hours of their time packeting seed and sending out the orders.

There has again been an increase in the number of orders from Overseas members and it is satisfactory that they derive this benefit from the Club.

Where weather is concerned, hope springs eternal, so if we have a better summer this year perhaps it will be possible to harvest more seed from some of the rarer plants, which is always in great demand and always in short supply.

Donations of Seeds (or list of seeds "to follow") for the 1962-63 Distribution should reach Mrs. B. B. Cormack, 199 St. John's Road, Corstorphine, Edinburgh, 12, **not later than 2nd November 1962.**

Seed Lists will be sent to Home members who donate seed and to ALL Overseas members. Other Home members may obtain the Seed List by sending a stamped (2½d) self-addressed envelope, marked "Seed List," to the above address, before 1st December 1962.

B. B. CORMACK

P.S.—An Overseas member has heard that storing seeds in aluminium foil helps to preserve the viability and would be interested to know whether any member has had experience of this.

B. B. C.

Index to Journals 1 to 19

THE INDEX for *Journals* 1 to 19 inclusive (price 2/6, post free 3/-) is available to all who apply with the necessary remittance to the Hon. Editor : J. L. Mowat, University Botanic Gardens, St. Andrews, Fife.

S.R.G.C. Christmas Cards

THIS YEAR'S Christmas Cards will be made from the four colour plates in next *Journal*—figs. 17, 18, 19 and 20. They will be supplied in lots of **not less than one dozen**, made up either all of one kind, or mixed, as desired. It will be sufficient to give figure numbers when ordering. The price, including envelopes, is 9/6 per dozen, post paid. Orders should be sent as soon as possible to the Hon. Treasurer, David Elder, Esq., Jessamine, Kirkhill, Penicuik, Midlothian, enclosing the necessary remittance.

The steadily rising costs of production and postage of the *Journals* can be offset to some extent by your active support of this Christmas Card scheme. Please place your orders **EARLY**.

Obituary

R. E. COOPER

IN THE late Roland Edgar Cooper the Club has lost one of the original seven men who met to discuss the possibility of its foundation in July 1933—as he always said “in a pub at the West End” and this made him one of our Founder Members. He was always a passionate supporter of the Club in all its vicissitudes. As an Englishman settled in Scotland he, as so often happens, became a fervid supporter of all things Scottish and any suggestion of merging or affiliating with any English (and particularly London-based) organisation always produced the most vehement verbal fireworks. He always seemed to me to be a man born out of his century; his extraordinarily broad knowledge of the Sciences and the Arts and the breadth of his view was more in keeping with the Seventeenth Century than the present. Where a modern man would be caught in the web of details he took the broad view of the general aspects of a problem. This tendency to stand back and take in a comprehensive picture annoyed many of his contemporaries, who regarded him as something of a butterfly who was unable to concentrate on a problem but flitted around it making light and irrelevant comments. What they missed was the fact that these comments often hit more closely and aptly than their own carefully-thought-out notions did—and when they found this out later they did not relish it.

He possessed a shattering sense of humour which could be extremely disconcerting at times, but was never cruel. He was a source of sound, kindly and helpful advice to those who appealed to him for it, and it was based on his wide knowledge of the world and its ways. He had the knack of seeing a few steps farther on than one could see when in trouble, so that his advice seemed sometimes wide of the mark—but in the long run it was not.

His professional career has been written about elsewhere by those more capable than I, but some comment on Cooper as a collector

may be made. He was unfortunate in that he was so overshadowed by Forrest and Kingdon-Ward (in the latter's earlier days), and further that his sendings came back at the beginning of the '14-'18 War. The result was that many of his plants were lost and had to be "re-discovered" by others. One of the best examples was *Primula bellidifolia*, which had to wait for a further collection much later to be established in gardens. He had a good eye for a plant and it was a pity that his professional commitments did not let him go on further expeditions.

Cooper was the second official lecturer of the Club, for the first lecture was given by the late David Wilkie in Dundee and this was followed a fortnight later by Cooper in Edinburgh—both lectures were in November 1933 and were by way of propaganda for the newly-formed Club. In January 1934 he wrote and the Club issued a leaflet—more publicity to the tune of 5000 copies—which was sent to various Horticultural Societies, and in November 1934 he completed the "George Forrest Book"—which is now, I believe, a collector's piece. At the end of 1934 the *Journal* was decided on and Cooper became the first Editor, an office which he held until 1937. In 1950 he was elected an Honorary Vice-President in recognition of all his services to the Club, but after his retirement in 1951 he went to Southend to live and his principal contact with the Club was by letter, and we sadly missed his wise counsel on many of the Club's Committees, for he was so deeply versed in Club affairs and organisation that he was almost automatically appointed, in his own words "as a reference-source."

He was a fine photographer and I am glad that I was so lucky as to receive a collection of his slides of plant-habitats in the Himalayas, for this was a subject which always held a deep fascination for him and on which he could talk entertainingly for hours. We have lost a very outstanding man and we are the poorer for his passing.

HENRY TOD

JESSIE MILNE BRACK BOYD OF FALDONSIDE

JESSIE MILNE BRACK BOYD, who died at Upper Faldonside, Melrose, in May 1961 in her 94th year, was the last surviving daughter of that great botanist and plantsman, William Brack Boyd, who did so much to enrich our gardens by his collecting in the hills of Scotland and in the European Alps, and by his selection and hybridisation of many of the plants he grew.

Upper Faldonside lies in the cup of the hills which rise above the river Tweed. The house stands high on the lip of the cup, facing south, with a glorious view over grass parks sloping to a little loch which is a sheltered sanctuary for many species of wildfowl. In this lovely setting Jessie Boyd assisted her father with the work of tending with loving care the garden, with its unique collection of rock plants and ferns, which he had planted at Upper Faldonside, but it was only after his death, when the garden became her own, that she became

specially interested in the Auricula Section of *Primula* and its hybrids, of which she had a large collection, and which she always looked after herself. Some of them she grew in frames and some in a small cold greenhouse. She had collected some old stone troughs, and in these were planted *Saxifraga x boydii*, *Dianthus x boydii* and other plants raised by her father. For many years she grew ramondas and haberleas in a flat bed at the foot of a north-facing wall, and I have never seen more healthy looking plants. It is in this same border that *Salix x boydii* is growing. The original bush which Mr. Boyd brought from somewhere in Perthshire (the exact locality is not known) is now about 4 ft. high, and there are others raised from cuttings from time to time, beside the original bush. There is also another willow, name unknown, with curiously twisted stems falling over the central stem like a miniature weeping willow. At one time there was a flourishing clump of New Zealand Flax (*Phormium tenax*) in this border.

The borders in the garden are full of interesting and rare plants and bulbs. I believe there were 26 different species and varieties of Snowdrops, many rare species of Erythronium, and Mr. Boyd's famous collection of Ferns in special borders to themselves.

Jessie Boyd was the most generous of gardeners, and visitors to the garden never left without a basket or two of bits and pieces—sometimes it was a pan full of *Saxifrage* "Faldonside" or a bunch of cuttings of *Salix x boydii* or some other treasure.

She was a members of the Scottish Rock Garden Club from its early days until her death, and seldom missed an Edinburgh Show as long as she was able to travel.

The following is a list and description of some of the plants raised by Miss Boyd's father :—

Saxifraga x boydii originated from a seedling and is thought to be a cross between *Saxifraga aretioides* and *S. burseriana major*. The foliage is in tight rosettes of pale green and the flowers are in heads of bright yellow, on 1 in. stems. It is not an easy plant to keep.

Saxifraga x boydii alba is of looser habit with pure white flowers, and the parentage is supposed to be *S. burseriana* and *S. marginata*.

Saxifraga "Faldonside," a seedling from *S. x boydii*, is one of the earliest to flower, coming into bloom sometimes in the end of February. The silvery hummocks make a lovely contrast to the red-stemmed large pale primrose yellow flowers.

Saxifraga "Cherrytrees" is another seedling of *S. x boydii*. I have never seen this plant and I am not sure if the true plant is still in cultivation. The flowers have been described as pale lemon green.

Dianthus x boydii is a lovely fringed hybrid of *D. alpinus*, with larger and paler flowers with a dark central zone.

Sagina boydii, discovered many years ago, is now a very rare plant in cultivation. It is a beautiful little carpeting plant with bright green compact cushions studded with white flowers.

Primula pubescens "Faldonside" with its heads of crimson flowers is well-known to growers of the Auricula section of Primula. It is a most attractive little plant and not fussy. It is a good wall plant and likes light shade from the mid-day sun.

Salix x boydii—this dwarf willow which I have already mentioned is a very slow grower and the original bush of about 4 ft. must be over 70 years old. It is an attractive sight in the spring with its bluish woolly foliage and its yellow catkins. Being such a slow grower, a small bush a few inches high makes an attractive feature in a trough.

Galanthus imperati "Boyd's variety"; *Galanthus elwesi* "Cassaba" var. *Boydii*—I have never seen the snowdrops at Faldonside and cannot describe them, but there is mention of these two varieties in an article by Mr. W. S. Fair of Galashiels in The Alpine Garden Society's Bulletin, Vol. VIII, 1940, on the life and work of William Brack Boyd of Faldonside.

M. LOGAN HOME

Gentiana sino-ornata

By T. SHARPE

THIS GENTIAN is in my opinion the best of the autumn-flowering ones when seen at its best. The photograph (Fig. 1) shows it massed in a border alongside an artificial lake roughly about fifty to sixty feet long and an irregular width of from nine to twelve feet. The group of heaths on the right are varieties of *Calluna*, *serlei*, *hammondii* and "H. E. Beale." Towards the edge of the lake is a large group of *Kaempferi* Iris, and the tree on the left is a weeping Beech on an island in the lake. Near the edge of the gravel walk is a group of *Gentiana farreri* about 2 feet square. The soil was a stiff and pretty heavy one and a heavy coating of rough leaves was dug into it, and a good layer of older leaf-mould was pointed into the top two or three inches.

This border was at first planted with small plants of named heaths, planted rather widely, and it looked pretty sparse and, as one fellow-gardener friend said, it looked "like nothing on earth." Having two or three small groups of *G. sino-ornata*, it was decided to break them up and run them in among the heaths as a sort of ground cover. Planted I think in 1929, by the time the photo was taken in 1932 the Gentians were crawling over the heaths. *G. farreri* was quite good, but it certainly didn't ramp like *G. sino-ornata*. It may be of interest to readers that the original stock was bought in the early 1920, as thongs or claw roots received in a match box for £1.

The September of 1932 when this photo was taken was ideal—sunny, no rain or early frosts, and there must have been very many thousands of flowers out at the same time.

The Clarke Memorial Lecture

SOME PLANTS OF THE HIMALAYA AND KARAKORAM

By O. POLUNIN

THE HIMALAYA and their western extension the Karakoram have an enormous climatic range varying from the sub-tropical monsoon rain forests of the foothills to the moist alpine meadows above the tree line, and the dry steppes of the Tibetan plateau to the north.

With this in mind, I have chosen three journeys to illustrate the great variety of plant life to be found in this mountain world. Western Nepal, Kashmir and the Hunza Karakoram show these contrasts; Nepal has a full monsoon climate, Kashmir has a light summer monsoon, and by contrast the Karakoram is almost rainless. Passing from east to west with the climate progressively drier, there is a successive reduction and virtual disappearance of some of the characteristic Himalayan genera such as *Rhododendron*, *Meconopsis*, *Primula*, *Cremanthodium*, and in their place are plants of the high steppes and dry mountain ranges of central Asia.

Western Nepal receives a heavy dose of rain from mid-June to August and regular zones of vegetation at different altitudes can easily be distinguished; but as soon as one crosses the high passes (or travels through the deep river defiles) to reach the country to the north of the main range, one arrives suddenly into quite a different world. Instead of soft alpine meadows with springy turf, alive with *Primulas* and *Potentillas*, one crosses interminable brown stony slopes with a sparse scrub of *Caragana*, *Lonicera*, *berberis* and cushion *androsaces*. One can walk for days without ever crossing a grassy sward; willow thickets a few feet high take the place of forests along the streamsides.

To arrive at the alpine world of Nepal, from India, one has before one at least ten days walking through forested pastoral country. There are two possible routes. One can either follow one of the great rivers which rise to the north of the Great Himalaya and cut fantastically deep valleys through the main ranges. In this case the journey is usually hot and arid. Scorching winds blow up these valleys from the plains of India, as through a funnel, and desert plants such as *Euphorbia roylei*, *Opuntia*, and *Agave* species are common. Only occasionally is there a village where hill rice is grown with water from a subsidiary stream.

Most of the villages are perched half a day's march up the flanks of these deep troughs in the zone of the Chir Pine, where they get more rainfall from the surrounding mountains. Here on the grassy slopes often grows the handsome Melastomaceous shrub, *Osbeckia stellata*, with large pink flowers and small leathery leaves, reminiscent of a *cistus*.

Higher still one comes to the first of the Himalayan Blue Pine, *Pinus wallichiana*, at about 5-6000 ft., where often the under shrubs have been cleared by firing and in their place a rough grass sward occurs. This is the kind of place in which one can expect to find the strange

Butterfly orchids which look like giant white moths amongst the grass. *Habenaria arietina* and *H. intermedia* (Fig. 2) are two most attractive species ; the latter has comb-like fringes on each side of its narrow lip and a spur nearly three inches long.

Alternatively one can travel across the ridges of the middle hill country and follow the line of villages which are perched along the top of the steep ridges, with the terrace cultivation spreading downwards on each side. But the track is continuously rising and falling, sometimes dropping as low as the monsoon rain forest zone, and then climbing laboriously upwards for a whole day to arrive in the zone of deciduous oaks, at perhaps 8000 ft. Much of this broad-leaved forest country is cleared and cultivated, and the oaks are shorn of their branches to supply winter food for the cattle. In the summer, however, the cattle are taken up to the higher zones of Silver Fir and Spruce, and in the meadows on the edge of the forests the first true alpine species can be found. As soon as the snow leaves *Primula gracilipes* is the first to flower in damp leafy places under the shrub thickets on the forest verge. But *Rhododendron arboreum* is really the harbinger of spring. As step by step the snow retreats down the mountain sides, so the winter toned shoots burst into scarlet flower ; sometimes you can find a tree in full flower with patches of snow still lying on the ground—an unforgettable sight. In open places *Primula denticulata* forms attractive spherical heads pressed flat against the ground, and is one of the commonest species.

The first shrub to flower is *Viburnum grandiflorum*, with globular heads of pink flowers and a very sweet scent.

The upper limit of the forest is almost invariably a narrow zone of *Betula utilis*, with commonly *Rhododendron campanulatum* and *Sorbus microphylla* forming a lower shrub layer. There is often a sudden change to alpine meadow and one walks out of the forest into open grassy meadows with dwarf rhododendrons such as *R. lepidotum*, *R. anthopogon* and *R. setosum* forming a low thicket a foot or so high. In the barer ground between the shrubs often grew swards of *Anemone obtusiloba* with rich blue flowers, and clumps of the very handsome *Iris kumaonensis*, whose large mottled flowers stand above the spear-shaped leaves. These are often the first plants to flower, but after a week or two of sunny weather these meadows become a riot of flowers too numerous to name. *Primula sikkimensis* and *P. hopeana*, with *Primula macrophylla* occurring in higher and damper spots, are widespread. In an alpine meadow of this kind, in the Sisne Himal, I found a new species of primula which is to be called *Primula polunii*, and in drier country to the north we found another new species, *Primula ramzanae* (Fig. 3), which was named after our Kashmiri plant collector, Ramzana Mir.

Potentilla nepalensis, *Geum elatum*, *Fritillaria cirrhosa* (Fig. 4), *Dipsacus inermis* are all good herbaceous plants and flower in the early part of the summer ; later on, the Nepetas, Salvias, Delphiniums, Aconitums, Cyananthus, Codonopsis and Gentians flower abundantly.

In the bushy ground about the tree line and in the higher more sheltered meadows up to about 17,000 ft. grow many of the best *Meconopsis* species. *M. grandis* often grows on the edge of the forest, but the largest clumps I found with twenty or so large drooping flowers of the clearest blue grew out on the open mountain side. *M. regia* could sometimes be found growing as tall as six feet high with cascading heads of 30-40 pale yellow flowers, while *M. nepalensis* seemed to favour the shelter of rocky ledges in outcrops in the meadows, and on occasions it was growing on the same ledges as the lovely snow-white *Primula reidii* with its beautifully poised open bells and its hairy crinkled leaves. *Primula rotundifolia* is another plant which likes the shelter of a large boulder and I have seen with great pleasure the first stages in its release from dormancy when the magenta flowers push out between the close packed leaves of the wintering bud which is dusted with a golden farina. *Cremanthodium* species like *C. reniforme* and *C. plantagineum* with their shaggy drooping flowers are not uncommon, but *Cypripedium tibeticum*, with a large pouch streaked with red, was indeed a rarity.

As soon as one crosses the main range all is different. The brown, dry mountain sides are bare and treeless and support only a sparse, low vegetation in favourable places. Here grow a number of good androsace species such as *Androsace muscoidea*, whose silvery-white rosettes sometimes cover the ground, and when they suddenly break into a flush of globular pink heads they are quite exceptionally beautiful. In the drier areas further north still grows *A. tapete*, forming rounded 'tennis balls' of massed white rosettes amongst the stones and bearing almost stalkless white flowers. In this tibetan-like country I found *Incarvillea younghusbandii* with tiny leaves and large stalkless flowers, but the larger species, *I. grandiflora*, is exciting enough to find growing on earthy slopes with its huge pink and orange trumpets carried almost stalkless at ground level.

Another choice plant is *Paraquilegia grandiflora*, which seems to prefer rather dry rock ledges where its roots can grow down between the cracks. Its grey ferny foliage is a wonderful foil to the pale milky blue flowers with their tight bosses of orange stamens. One of the highest growing shrubs I came across was *Rhododendron nivale*, and it is probably the highest growing species of the genus. Just below the Mohala Banjyang (Pass) at an altitude of nearly 19,000 ft. was a small foot-high thicket of this plant with deep mauve flowers set amongst the small leathery leaves. *Oreosolen wattii* and *Phlomis revoluta* are two other species with flat rosettes pressed to the ground and central spikes of flowers a few inches high.

In this dry rolling country one travels in company with pig-tailed, smiling, Bhotia ; and one's loads are carried by Yak bedecked with red tassels and tinkling bells ; a high, open, undulating country with long views of brown mountains and occasional snow-covered summits.

Kashmir is quite different, though reminiscent of parts of the middle hill country in Nepal. The summer monsoon is intermittent and spells

of brilliant sunny weather are interspersed with periods of rain and cloud. The *margs*, the grass meadows in clearings in the forest, and above the tree line, are justly famous (they are called *kharkas* in Nepal and *yailas* in Turkey) and to these grazings the shepherds take their herds and flocks after the snow has melted.

The famous *marg* of Gulmarg is surrounded by Spruce and Silver Fir and on the edge of the forest clearings grow a rather similar collection of shrubs to those found in the forest verges of Nepal. *Viburnum foetens*, *Berberis asiatica*, *Skimmia laureola* are common, while among the thickets grow such handsome herbaceous species as *Morina longifolia*, *Salvia glutinosa*, various Balsam species—*I. glandulifera* is one of the commonest—and lovely patches of a fine deep blue form of Jacob's Ladder. In the short turf of the heavily grazed meadow grow *Primula denticulata* and by the stream sides *Primula rosea* in company with the white form of the Marsh Marigold, *Caltha palustris alba*.

As in Nepal, *Betula utilis* forms the highest forest zone and with it occur thickets of *Rhododendron campanulatum*, willow, *Syringa emodi* *Sorbus lanata* and other shrubs, and about these thickets are many attractive herbaceous plants. *Salvia hians*, an endemic of Kashmir, is one of these with its deep blue flowers and lip blotched with white. *Inula royleana*, the finest member of the genus that I have seen, showed its solitary four-inch orange capitula and numerous narrow ray florets, while *Codonopsis ovata*, with strangely pungent foliage and delicate pale blue bells, was another notable plant. If one looked carefully amongst the grass covered boulders in the forest or at the edge of the *marg*, one can sometimes find *Cypripedium cordigerum*, a white flowered species that is uncommon in Kashmir.

On the higher *margs*, a thousand feet or so above the tree line, there are many other choice plants like *Adonis chrysocyathus*, a lovely golden-flowered species and not easily distinguished from *Trollius acaulis* when in fruit. *Primula macrophylla* grows here, together with the tiny magenta-flowered *P. elliptica*. *Anemone obtusiloba* in blue, white, and occasionally yellow forms can also be found.

During the late summer and early autumn in the Kashmir mountains there is a preponderance of blue and yellow (often compositae) flowers, and the former are largely from the genera delphinium, aconitum and gentiana. *Delphinium cashmirianum* is perhaps the most striking, with deep blue inflated flowers strongly veined with darker blue; while *Aconitum violaceum* is a tiny bright blue-flowered species only a few inches high, and *A. heterophyllum* a yellowish-green monkshood with reddish purple veins—a rather unusual combination of colours.

Gentiana moorcroftiana, a small annual species, flowers in great profusion, making brilliant patches of limpid blue on some of the drier grassy mountains to the north, and Kashmir's own gentian, *G. cachemirica*, trails from many crevices on bare rock faces lower down in the forest zone; one can often see the sky blue patches of colour a long distance off. *Campanula cashmiriana* often grows on

the same cliffs, but it is a less spectacular plant, though with its blue bells hanging from among grey hairy leaves it is attractive. *Meconopsis aculeata* (Fig. 5) is the most widespread of the genus in Kashmir and it also likes to grow in ledges on vertical cliffs well above the tree line. At its best it is a wonderful plant of the clearest, purest blue, with a big central boss of orange stamens and delicate, though rough, pale green leaves. I found the less common *M. latifolia*, which, I am told, is an even better flowering species, but the flowers were long over and the seeds ripening.

Above about 13,000 ft. different species of alpine plants become conspicuous. The common *Polygonum affine* creeps over consolidated screes and forms extensive mats of stems which push up thousands of pink flower spikes, so that acres of the hillside have a pink sheen undulating over the boulders; some patches are pale pink, almost white, and others a deep reddish pink. *Polygonum vaccinifolium* does this kind of thing in Nepal and festoon boulders as in a natural rock garden; however, the neatest of all these polygonums is *P. emodi*, which has even narrower spear-shaped leaves and compact darker pink heads, but it is always much less common than the others and can only be found on vertical cliffs, as far as my experience goes. *Anaphalis nubigena* is another common plant which makes showy swards on the mountain slopes.

The final flush of colour, like a blush on the mountain, is caused by the autumn colouring of a number of plants. On the damper peaty slopes where *Rhododendron anthopogon* and *Cassiope fastigiata* grow, the large-leaved *Bergenia ligulata* grows in profusion and in early September the smooth leathery leaves turn a brilliant coppery red. On drier slopes the erect fleshy-leaved *Sedum crassipes* stands out and on stonier ground the smaller *S. quadrifidum* may form low clumps. Both these stonecrops turn bright red, almost scarlet, as they die down to wintering rootstocks.

The Karakoram lie about 180 miles to the north of Kashmir, but they receive none of the life-giving rains of the summer monsoon. All human habitation is dependent upon artificial irrigation and terrace cultivation.

It is difficult to realise as one walks through the apricot orchards of Hunza—the small native state in the heart of the Karakoram—and the pink fields of buckwheat, or looks through the tall poplar trees to the snow mountains beyond, that in reality one is in an oasis and that this oasis is entirely man-made. For every tree, shrub and meadow is maintained artificially by water brought many miles across the mountains from melting glaciers high up in the high Karakoram.

Hunza State lies at 8000 ft., but it is necessary to climb 5000 ft. higher to find the first of the true alpine plants. The deep valleys of the Karakoram are cut through the mountains by glaciers and their wild rivers, and they support practically no vegetation except steppe plants which can survive very low rainfalls. It is only around the melting glaciers, or in little pockets tucked in the folds of the mountains, that anything like a green sward of vegetation is found.

The first such place that I came across was by the side of the Ghahesa Glacier, eleven miles east of Hunza (there were others nearer at hand). On an extremely steep slope facing north which swept upwards from the glacier, where there was a good supply of surface water, I came at last to a rich and flowery meadow and dwarf willow thickets. *Doronicum falconeri* was the tallest plant in the place and it stood a little more than a foot high, often growing up through the willows. With a handsome umbellifer, *Pleurospermum candollei*, *Delphinium brunonianum* covered in large inflated pale blue flowers, the intense blue of *Myosotis sylvatica*, and the red of the female flowers of *Sedum crassipes*, there was a fine splash of colour which was a most welcome sight after the miles upon miles of earth slopes, scree and boulders and Glacial ice that we had been crossing.

The base camp (Fig. 6) was sited on the last such grassy patch up the Ghahesa valley, on a lateral moraine left by the glacier as a ledge between the crumbling precipices of the mountain and the crevassed face of the glacier. It was situated at about 15,500 ft. and we pitched our tents on a sward of black-spiked *Carex melanantha* by the side of a streamlet, lined with sweet scented pink *Primula macrophylla* of great charm.

On the scree alongside the glacier and the few acres of turfy ground around our camp there are some good alpine plants. Everything here is dwarfed to little more than three inches and most species form rosettes and short creeping stems closely applied to the soil between the stones. Even a delphinium, *D. lacostei*, is reduced to a height of three inches and it bears large one-inch light blue swollen sepals with hairy brown petals within; and a tansy, *Tanacetum tibeticum*, grows little more than an inch high with solitary globular heads and tiny silvery dissected leaves. The compositae is well represented: *Leontopodium leontopodium* is a delicate little edelweiss with snowy rosettes and inch-high stems bearing heads with intensely woolly bracts. *Aster heterochaeta* is common and an attractive plant with violet one-inch aster-like flowers born singly on short stems. But the most absurd plant of any that I have found is *Saussurea gossypiphora* (Fig. 7), which looks like a spherical ball of cotton wool on the scree, and at the apex purple capitula just manage to push through the web of hairs. The most attractive members of this family are undoubtedly the Waldheimia (*Allardia*) species. They grow at the highest altitudes of the western Himalaya and the Karakoram and form mats of spherical rosettes over the surface of the soil—the rosettes of *W. tridactylites*, the commonest species, are very like a saxifrage in appearance; however, when they break into flower, as they do in great profusion, there is no mistaking their daisy-like parentage. The flowers are an inch across in *W. tridactylites*, one to each rosette, almost stalkless, and the capitula are often deep pink with orange discs, and their bright starry heads cover the ground. *W. tomentosa* has larger, more delicately proportioned flowers with a less compact or often elongated stem, with hairy leaves. *W. nivea* has snow-white rosettes and deep pink flowers. It is an uncommon plant and seems a shy flowerer.

There are quite a number of *Potentilla* species in the high Karakoram. The most striking that I found was *P. biflora*, which was growing in vertical cliffs above the glacier and was smothered in golden-yellow flowers; with it grew a very dwarfed form of *P. arbuscula* var. *pumila* pressed against the surface of the vertical rock. The tiniest *Potentilla* is *P. terrandra* and it forms flat mats of closely packed leaflets on the surface of the ground and is starred with tiny pale yellow flowers. I found it growing over 16,500 ft., which is near the limit of plant life in the Karakoram.

Saxifrages were also present, such as *S. imbricata* which forms rock-hard mats under the shelter of boulders, and the charming yellow-flowered *S. jacquemontiana* (Fig. 8) with a solitary stalkless flower held in the apex of each gland covered rosette. The delicate *S. flagellaris* spreads out its thin scarlet runners on all sides and they root in the crevices between the rosettes of *Waldheimia*, but perhaps the loveliest of all the saxifrages at the base camp was *S. montana*, which bears golden-yellow flowers on short stems with drooping red buds, and spotted red petals within.

However, amongst this collection of attractive miniature alpine plants of the Karakoram there is one that I shall always remember. I have sung its praises elsewhere, but I feel that I must recall its charms once more. The plant is *Mertensia tibetica* (Fig. 9). It forms an open mat of forget-me-not leaves under the shelter of boulders in mossy places. The heads of flowers are borne on short stems which often elongate to three or more inches, where the plants hang from vertical crevices. A crozier head of six or so flowers are borne at the end with long corolla tubes sometimes nearly an inch in length of a deep wine-red. They contrast with the neat rounded petals, which are a bright, deep blue, and are even darker than a gentian, though more translucent in texture. It is a most richly coloured and delicately built plant that satisfies most of the demands of the alpine gardener.

A closely related species, *M. primuloides* (Fig. 10) also grows here and in Kashmir. It is very nearly as beautiful, although the corolla tubes are not so long or striking. Both species seem to set very little seed, and I think we shall have to await another expedition to the remote Karakoram before these most desirable and charming alpine plants are brought into cultivation.

A Rock-Gardener's Alphabet

- A is for *Astragalus*, with sixteen hundred species.
Abelia should come first, perhaps, or so the ABC says.
- B is for *Bergenia* that flowers twice a year,
Formerly a Saxifrage, and later *Megasaea*.
- C is for the "curious" plants the nurseries often offer ;
I placed an order once or twice, but now I am a scoffer.

- D is for *Douglasia*, so very like *Androsace* ;
I'll scrap my *laevigata*—the thing is a dead loss, I see.
- E is for *E. nanum*—you well know what I mean—
Lovely, but so difficult ; acknowledged as the Queen.
- F is the *Fritillary*, a name that means a dice-box ;
Patterns based upon it might produce some nice frocks.
- G is for *Geranium*, for *Geum* and for *Gentian*,
Globularia, *Gypsophila*, and others one could mention.
- H for the *Hypericums* ; there's *pulchrum* but not *bellum* ;
Out of two hundred species (plus) I go for *tomentellum*.
- I is for the *Irises* of temperate northern regions—
One, the yellow flag, is known to Bedouins and Norwegians.
- J's for *Jasione*. The accent's on the *o*, sir.
Please excuse the liberty if you already know, sir.
- K must stand for *Kalmia*, American Swamp Laurel ;
Rather big for us, perhaps ; on that don't let us quarrel.
- L stands for lots of things. Which, then, shall I choose ?
I'll pick on *Lithospermum* ; it has the loveliest blues.
- M's for *Myosotis*, and *rupicola*, if you please ;
You may keep it for a year or two, at home upon the screes.
- N is for the *Navelwort* (to you that's *Omphalodes*).
The pure blue *cappadocica* just now all the mode is.
- O is for *Oxalis*, the splendid *enneaphylla* ;
Given some shade and leafy soil, really quite a thriller.
- P is for *Parochetus*, that means "by rill or brook."
(Greek *ochetos*, not *achetos*, as given in one book).
- Q's for *Quinchamalium*, that's native in the Andes ;
I'd invent a funnier word if kept well plied with brandies.
- R's for all *Ranunculads*, a lowly dicot family.
(I've said just what I meant to say, albeit rather hammily).
- S for *Schizostylis*, the crimson Kaffir Lily ;
Pronounce it sky-zo-sty-lis ; the other ways are silly.
- T now, stands for *Thymus*, genus diversely scented ;
I have a mass of wild thyme ; feel very well contented.
- U is for *Umbilicus* (some call it *Cotyledon*—
Mine's *simplicifolia*—one thing slugs don't feed on).
- V is for *Veronica*. The capsule's flat from side to side ;
In the shrubby *Hebes* that's the way that's wide.
- W for *Wahlenbergia*. Mine has no milky latex.
The next word may be difficult—starting with a great X.
- X for *Xerophyllum* that we call the Turkey's Beard ;
So X was not as difficult as one at first had feared.
- Y is for *Yew*, of course ; the best is *ericoides* ;
S.V.P. you say that to rhyme with Jericho-eyed ease !
- Z is for *Zauschneria*, in October flowering still.
To close the list quite firmly *Zygadenus* fills the bill.

From The High Hills

New Zealand Alpines of Merit

By A. W. ANDERSON

WITH ONLY a few exceptions the most attractive of our wild flowers come from the high mountains where, during late spring and early summer, many of the cool shady slopes are alpine gardens of rare beauty. There are buttercups of white and yellow that sometimes cover whole hillsides ; ourisias in two main groups, of which one has the white musk-like flowers rising tier upon tier like those of an Asian primula, while others spread their green mats over the stony ground and cover them with white blossom ; forget-me-nots of white, yellow or bronze that are true alpine gems, but seldom seen outside their mountain homes ; two handsome species of edelweiss that are far superior to the Swiss relative from which they get their name ; the remarkable vegetable sheep that are now among the most treasured possessions of alpine connoisseurs in England ; the snow marguerite that in most well-drained valleys produces its clustered heads of daisy-like flowers which may glisten like a snow-field ; but the mountain daisies with something in the region of sixty well-defined species and many varieties are the most arresting of all, if only by the sheer weight of their numbers, their rosettes and spreading mats are everywhere with every degree of hairiness, leathery texture and rigidity, and most have flowers of real beauty.

As might be expected when we consider its great mountainous backbone some 500 miles long and studded with peaks over 10,000 feet high, the South Island is the headquarters of our high alpine flora. In round figures we have nearly a thousand alpine species, of which about half never come down to the lower levels. About a hundred of them may be found among the mountains of the North Island, but only about a third of that number have not been recorded from south of Cook Strait. Most grow between 3500 and 7000 feet, and I doubt if a score manage to ascend above 8000 feet. About 97 per cent. of our alpines are endemic, that is, grow only in New Zealand, and the hundred best are very attractive plants indeed, but few have ever been grown in our gardens. Overseas visitors and correspondents are always astonished to find that the alpines of the northern hemisphere are far better known among us than the fabled wonders of our hills that Farrer has described so enthusiastically in *The English Rock Garden*.

Although we may see golden slopes of *Bulbinella hookeri* or great white sheets of *Celmisia spectabilis* at lower levels, it is when we climb above the sub-alpine scrub to reach the grassy fell-fields of the uplands that we find the real gems of the New Zealand flora. At about 4000 feet the scrub thins out to leave a scattering of small shrubs, erect or semi-prostrate, such as some of the smaller dracophyllums that

may be tufts of grassy foliage or may follow the contour of rock and boulder after the fashion of the creeping cotoneasters. They are many and variable and hard to identify with any degree of satisfaction, but such species as *D. muscoides*, *D. uniflorum* and *D. kirkii* are so unusual in appearance as to give an air of distinction to any garden.

Almost every rock garden you visit has one or more of the dwarf conifers, but the strange "whipcord veronics" are the exception rather than the rule. Long since transferred to the genus *Hebe* by the botanist, they cling tenaciously to their old name, and the whipcord group get their name because the leaves are reduced to mere scales that clasp the stems so tightly as to give the appearance of tightly plaited cords. It was first given to *Hebe hectori*, whose remarkably stout branchlets are quite round in section and of a yellowy-green colour looking more like cord than any of the others. *H. salicornioides* has a much more spreading habit, and the leaf-scales are rounded at the apex. It is often confused with *H. propinqua*, a low spreading, light-green plant that seems to favour peaty ground, but the pronounced triangular leaf-tips form a ready means of identification. I don't know why *H. cupressoides* isn't seen more often in our gardens. This sub-alpine species forms a rounded bush about as high as it is thick, some four feet or so, and looks exactly like one of the dwarf cupressus, and you can hardly believe your eyes the first time you see it all decked up with a hale of lavender-blue blossom.

I suppose that, strictly speaking, the term whipcord should be confined to those species which have rounded branchlets, but in practice we usually include the four-angled ones as well. The stiff and upright *H. lycopodioides* varies greatly in form and size, but you can always recognise it by the fuzzy outline which is caused by each little leaf-scale having a distinctly pointed apex. The dwarf members of the four-angled group are among the most charming of our high alpine, and some of them look for all the world like some of the dainty little cassiopes. *H. ciliolata*, like the others, is rarely more than a few inches high, more or less prostrate with bright green branchlets and tiny leaves minutely toothed and fringed with fine hairs. Like others of the group it has its flowers in short two- to four-flowered spikes around the tips. It likes a fairly moist place, such as a rock crevice that is in shade most of the day.

On drier rocks and screes the somewhat similar *H. tetrasticha* sometimes forms patches a foot or more across. It differs in having even smaller leaves more bluey-green in colour, while the four-angled branchlets have decidedly concave sides. Smaller as well as being more slender and wiry, the closely allied *H. quadrifolia* may be distinguished by the sides of the branchlets being flat instead of concave. Linking the two groups is *H. tumida*, which may spread to patches of nearly two feet in diameter, its distinguishing feature is the tumid appearance of the minute leaves, and the stems are not noticeably

square-stemmed. Very different and much more like a conventional veronica is *Parahebe linifolia*, an upright shrublet of six to nine inches which prefers cool and rather shady conditions. It is seen at its best when perched in a crack of the rock above the tumbling waters of a rocky gorge. The pretty trusses of blossom are usually white, but in the Milford Sound region some fine pale-rose forms are to be found.

If you go to the hills at Easter the flowers may well be over, but you are sure to find an interesting array of coloured fruits. I don't think I have ever seen *Suttonia nummularia* fruiting in a garden, but it can be a very attractive plant in the wild when the long slender trailing twigs are festooned with clusters of purple fruits, sometimes in twos or threes and sometimes singly. The small roundish brown leaves are not without interest, but you wouldn't spare a second glance on the tiny insignificant flowers. Another somewhat similar plant is *Muehlenbeckia axillaris*, which forms mats of dark green foliage flat on the ground up to altitudes of about 5000 feet. In summer you would scarcely notice the small greenish flowers, but in autumn the perianth swells to become a fleshy pearl-like cup in which sits the little black nut, and when the fruits are borne in such profusion as to all but hide the leaves, the effect is very striking. *Cyathodes colensoi* is probably one of the best-known of our alpine shrubs in Britain, although rarely seen here. In the wild it may reach to a height of 5000 feet above sea-level, and is easily recognised by the peculiar pinkish appearance when seen from a distance. The heathy branches, not unlike those of a small totara, are very pleasing, and the leaves very pale beneath and the whole plant is very appealing when the white or claret-coloured fruits are ripe.

The much smaller *C. empetrifolia* has pretty, dull-red fruits, while the flat-leaved *Pentachondra pumila* that also inhabits boggy places covers itself with bright red fruits. It is often confused with the somewhat similar *Cyathodes pumila*, but the leaf-margins are the thing to look for. Those of the pentachondra are fringed with hairs, while the margins of the leaves of the cyathodes are broad and thin at the tip but thick towards the base. *Gaultheria depressa* is another lover of the peat bogs and wet ground generally, where it forms a prostrate mat close to the surface of the ground in which the large white, or rarely red, berries are embedded. Of very similar habit and habitat is the pretty *Pernettya nana*, which may be distinguished by the calyx that becomes fleshy and assumes the same colour as the bright red berries which it partly encloses. At one time known as *Gaultheria perplexa*, the closely allied *Pernettya macrostigma* grows to a height of six to nine inches with dark red entangled branchlets and narrow leaves. When these are decorated with the cerise-coloured fruits, the effect is very charming.

(To be continued)

“Starting from Scratch”

By W. URIE

I HAVE a feeling of deep gratitude to my friend who gave me that book on “Rock Gardening” and started me on such an interesting hobby. It was the coloured illustrations which attracted me, pictures of charming little rock plants growing out of a dry wall, which had been built to retain a bank. The idea of growing plants “on the perpendicular” was then to me quite an innovation, and indeed was just what I needed to join up two levels, so much better than a sloping grass bank. I proceeded forthwith to get stones and with considerable effort built the wall. Then I bought the twelve plants which were illustrated in the book.

I know now that I should have put the plants in during the process of building ; however, they all grew splendidly, and ere long I purchased more varieties which made a delightful show of colour over quite a long period. Having joined the S.R.G.C., I recall the assistance which I received from Club members ; three especially were helpful in giving me advice and plants. The first I recall was the late Dr. Buchanan. I am naturally very pleased to have gained the Dr. Buchanan Memorial Cup in recent years at the Glasgow Spring Show. There is another member of the Clan Buchanan who has profound knowledge of plants, and also, as all know, a kind and generous heart has “Willie.” The third I would mention has no rival in generous giving ; he grows and gives away hundreds of plants to encourage members. I know of no-one who has done more for the S.R.G.C. He is indeed “OUR Darling.” The giving and exchange of plants and advice is an outstanding feature of the S.R.G.C. Membership.

With ever increasing interest in my new hobby, I attended many of the Scottish Shows, also Chelsea and Wisley Gardens, and through the purchase of many plants which attracted me, “Northcote” garden extended very much over the years (Fig. 12). The cost of up-keep has unfortunately grown very much. I therefore put much of the garden in lawn and grass paths, which saves labour through the use of motor mowers and mechanical appliances. Carpeting plants are a means of saving work, when they become established. I grow many *Ericas*, especially the *Carnea* varieties, which give such a long season in colour, and bring cheer with bright colours very early in the year. My favourite *Carnea* is “Ruby Glow,” a variety which is very attractive throughout the whole year with its bright foliage. I like to dot dwarf *Conifers* among the *Ericas*, as they are effective as “Point Plants.” The many dwarf *Cotoneasters* are good for smothering out weeds and are attractive creeping over the stones and cascading down a bank. I also use thymes for this purpose ; I would especially mention the variety “T. Doerfleri,” excellent for cascading down a sloping bank like a waterfall.

My garden is on two levels connected by a steep bank. The top ground originally yielded good crops of early potatoes to the farmer, grown in sandy loam. The lower level, which is the larger area, was regarded as waste ground unsuitable for agriculture. It has turned out excellent for my purpose and I was delighted to find a considerable amount of sandstone on the bank excellent for rock-gardening construction. After my requirements of stone had been met, I planted up the face of the bank, chiefly with varieties of dwarf conifers. In the lily pond at the bottom they give a pleasing effect throughout the whole year, reflecting the varying shades of green.

Water is always a pleasing feature in a garden, and I have the good fortune of a burn which winds through between steep banks. Along the edge pockets provide happy homes for Aquatic plants and Ferns, a good setting for Primulas, and it is a joy to welcome early in Spring *Primula rosea*, which is so happy with its roots in the water. The Calthas are indeed "Harbingers of Spring"; they provide good colour reflection in the pools. *Omphalodes cappadocica*, with its forget-me-not blue flowers over a long period, is good at the burn side and a useful carpeter. It is very easy to propagate by division. I have featured the burn with several waterfalls, over which it splashes and sparkles in sunlight—"Tumbling Waters" indeed with a merry tune.

When I started from scratch so many years ago I did not of course visualise the layout as it now is. It has been done gradually through the years and the creation has needlessly to say, given me endless pleasure. Rock gardening is a grand hobby and I am indeed grateful to my friend who first interested me in it.

Jankaea heldreichii

By H. ESSLEMONT

MY LIMITED experience of this plant does not enable me to offer really authoritative advice on its culture.

A first venture, with two very small plants, was abruptly terminated by birds who entered a half-open frame and, attracted by the furry leaves, pulled the plants to pieces.

A second, slightly larger Jankae, obtained from a friend in Switzerland, was planted in an ericaceous mixture with extra leaf mould. A tufa base was fitted closely around the neck of the plant under the leaves. The pot was plunged in sand in a North frame and watered from beneath, as it strongly resents water on its downy leaves.

It appears to appreciate half shade in summer and rather more light in winter.

With patience and careful cultivation it does not appear to be an unduly difficult plant, and it is certainly one that will repay any effort to make it feel at home. Small offsets will establish if planted between two "clamped" pieces of tufa (Fig. 16).

Confessions of a Rock-less Gardener

By CECILY ANDERSON

HAVING READ the article in the *Journal* for April 1961 on "How Not to Make a Rock Garden" and the editorial comments on this, I am encouraged to tell the story of our own beginnings in alpine gardening, in the hope that this may perhaps help others who may begin as ignorant as we were.

We began in the Spring of 1959 with a daunting terrain from which a rank growth of weeds had been stripped the previous summer by sodium chlorate; it now lay revealed as clayey sub-soil full of small stones and topdressed with rubbish. The problem of bringing it under cultivation was complicated by the configuration of the ground, which rose steeply from the back of the house in a bank over six feet high, then ran level for some nine yards, rose again in a higher but less precipitous bank on which the soil was especially thin and poor, and ended in a final plateau. The two steep south-facing banks seemed natural sites for rock gardening and had been so used by several of the neighbours (if rather too often to Dundee-cake designs).

The first necessity was to stop the banks from sliding down after every rainstorm. For this we bought several tons of used granite setts from Aberdeen Corporation and had retaining walls nearly two feet high built at the foot of both banks and a long stairway cut back through the middle of the upper one (the lower was already provided with steep concrete steps). From this recessed stairway two paved walks on each side give access to the bank and punctuate it into three horizontal zones.

Having thus established the main plan of the garden, we had to think about the layout in more detail. We soon abandoned our first idea of building a conventional rock garden. Numerous as were the stones in every spadeful of our soil, they were nearly all far too small for any building work; granite bought from a local quarry could have been bald and sharp-edged, as well as expensive; and collecting mossy, weather-beaten boulders from the moors is awkward if one has to take them home by bus or rail. Moreover, as a pair of lifelong bookworms, we did not relish the thought of the physical effort involved in building a 'Mansfield' (or even a 'Penguin') rock garden; and, unlike plain walling, the laying out of strata, ravines and outcrops is too much a matter of personal taste to be satisfactorily delegated to hired labour. So we decided to plant our banks as they then stood. A little ashamed of our pusillanimity, we were gratified when a fellow member of the Club, surveying our pebbly slopes, announced that what we had created was a 'natural scree' garden. Since then I have read Alan Bloom's *Alpines for Trouble-Free Gardening* (London, 1961) and I now realise that we were indeed anticipating (if from ignoble motives) the principles of alpine gardening there propounded: terraced

beds raised a foot or two above standing level by stone walls and devoted to horticulture rather than to applied geology.

For similar reasons we have never attempted to meddle with those fastidious plants which demand special soil-mixtures or special sites. Peat and bonemeal we do give our charges, but no more ; and we justify ourselves by saying that it is a garden we aim to create, not a horticultural hospital or curiosity shop.

The building done, the next problem was to choose plants for our banks. As ex-city-flat-dwellers we had a boundless ignorance of such things, and this was barely scratched by immense but uninformed admiration of the rock gardens in the Royal Botanical Gardens at Edinburgh. Nor did the purchase of two five-shilling handbooks studded with five-syllable names do much (at this stage) to enlighten us. So, in May 1959 we began with a 'mixed dozen' of pot-grown alpines—which for some reason we had sent to Aberdeen from a nursery in Gloucester ! These did more than anything else to give us an idea which plants we should enjoy cultivating. A Fuchsia 'Tom Thumb' won my husband's heart at once and the next Spring a companion was got for it. The speed with which a *Thymus herba barona* grew from a scrap two inches wide to a flowery and carraway-scented mat over a foot across, rooting down as it went, inspired us to buy quantities of a thyme offered at 5/- a dozen ; these were unhappily of the common *serpyllum* kind and not nearly as attractive in foliage, in habit of growth or even in scent, but at least those which survived the first winter have helped to give a preliminary covering to the naked scree ; and in 1960 we added to the collection some *T. citriodorus aureus* which is growing well at present and with its sharp yellow-green makes a pleasing contrast with the dark greens and silver-blue greens which predominate round about. The saxifrages in our dozen also found favour with us and led to further acquisitions. There were, however, a few tragedies during the first winter : the most deeply-felt was the death by drowning of a *Veronica cinerea* which never recovered from the melting snows of 1960 ; a successor was planted, in a higher and drier part of the scree, and after an almost snow-free winter it is now alive and flowering, though not vigorous.

At the same time as our mixed dozen we bought, from a local nursery this time, two gentians (a magazine article had aroused our interest), *G. acaulis* and *G. sino-ornata*, and also three helianthemums (on the urging of the saleswoman, as we knew nothing of these species). Both these purchases led to further developments. When *G. sino-ornata* bloomed in the autumn of 1959 we knew that we loved gentians and promptly bought half-a-dozen *G. hascombensis* cheaply : three of these died in the Spring of 1960 and the other three flourished magnificently that summer. This Spring we have bought six more assorted gentians (pot-grown this time) and are hopin these will thrive. *G. acaulis* has lived up to its reputation of being shyer to flower than *G. sino-ornata* : it gave one bloom in 1961 and two this Spring—we are hoping its

progression will be geometrical ! Of the three helianthemums two rapidly expanded from saucer-size to two-feet wide, and as they combined this vigour with great beauty we have bought many more, mostly at 7/6 a dozen.

We have indeed fairly often made use of those offers in the Sunday press of young plants at 7/6 or so a dozen and, as I know that many garden writers (such as Mr. Bloom) despise these bargains, I should like to describe my own experience as a beginner with an empty new garden. Of course, these cheap plants are not in such fine condition or as well packed as the pot-grown alpines sold by 'reputable nurseries' at 3/- or so each—often, indeed, one feels pity rather than pleasure when unwrapping and planting them. They are markedly more susceptible to drought and they do often take a season longer to reach flowering size. Yet I still think that for the beginner with an empty garden they may be worthwhile : this way, 7/6 buys not two or three plants but a dozen, and for anyone who has much ground to fill and as yet no skill in propagation this is important. Moreover, some of the most vigorous plants in our garden are a dozen hyssop bushes which in Spring 1959 arrived by letter-post as seedlings at 6d each. A rather less successful bargain at the same time involved a batch of periwinkle : we were led to expect that these would be of a prostrate variety which would root down and so spread over that scree, but they have turned out obstinately erect.

The lower bank immediately behind the house was mainly planted with these cheap mass-produced seedlings : *Arabis blepharophylla* (not a dainty plant, but bright in the Spring and usefully evergreen), aubrietia (still thin and straggly in their second Spring), *Dianthus deltoides* (flourishing and pretty), *Saponaria ocyroides* (threatening to engulf all its neighbours under its rosy billows), coloured primroses (glorious in April and multiplying fast), lavender (doing well enough), assorted pinks (likewise), helianthemums white, pink, red and yellow (rather feeble last summer, but now gathering strength and flowering gaily), thymes and some of the aforesaid hyssops. It speaks well for these cheap plants that they have survived at all, let alone spread as many of them have, for this bank is very steep and hence dry in summer, is partly shaded by the house and hence sodden in winter, and consists mainly of what looks and feels (and no doubt tastes) like subsoil ; moreover, they came straight from their nursery in the South of England to an Aberdeen November.

This lower bank is now almost completely covered by these plants, but we are not yet happy about the layout and are still making additions and alterations to improve this. The most urgent operation is the uprooting of a clump of Snow-in-Summer (*Cerastium tomentosum*) mistakenly accepted as a gift and now threatening an overwhelming invasion. Two years ago I thought it rather a pretty thing and could not understand why people were so eager to give away large chunks of it. Even such an aggressive plant as this may, however, have its

uses : its grey foliage is pleasing even in winter, and elsewhere in the garden we are trying to see whether it can safely be used to cover some very dry and gritty patches where less rampant growers would fail in a week.

The general tendency of plants to outgrow their sites is one of the facts of life which we have fully realised only this year, and certainly it is one of the hardest for a beginner to grasp when confronted with a handful of seedlings. In my early days I planted things far too close together in a desperate effort to overcome the bareness of the earth, with the result that now primroses are having to be rescued from saponaria, arabis from helianthemums, and even miniature roses from pinks. Last May we ordered seedlings of alpine pinks and Alwoodii and planted the neat little things in the front border (also retained behind a granite wall) which is devoted to the smaller specimen plants—the two 'Tom Thumb' fuchsias, gentians, miniature rose bushes (I know the purists disapprove, but I am unrepentant), *Pulsatilla vulgaris*, *Andromeda polifolia compacta*, some smallish saxifrages, etc. Last summer the pinks adorned this spot with due modesty, but now they are expanding both sideways and upwards most alarmingly and having to be hurriedly shifted to roomier quarters before they smother their less assertive neighbours.

Interplanted among the alpine we have also bulbs of various kinds, ranging from miniature narcissi and irises and the smaller species tulips in our front border to full-sized daffodils and species tulips among the *Vinca major* on the upper bank. These are an unfailing delight every Spring, probably the greatest joy in the whole garden year, even though enthusiasm does falter when the foliage is still there as an eyesore in mid-June ; and with all the pleasure they give they are less trouble than any other feature of the garden—but can anyone tell me of a humane way to keep the mice from eating the bulbs of my favourite species crocuses ?

Apart from the hyssops and lavenders already mentioned, we have a number of other small shrubs in the alpine part of the garden. In the front border a *Pentstemon scouleri* makes an attractive feature, not only when brilliant in May with its mauve blooms, but also in the winter with its shapely evergreen branches, but it does have to be watched and trimmed back when threatening to encroach too far on its neighbours. On the upper bank two *Cupressus lawsoniana minima glauca* guard the top of the long stone stairway, and two *Cotoneaster horizontalis* are the central features of the lowest zones. In the middle zone there are two small berberis on each side, including the charming *Berberis Thunbergii atropurpurea nana*, a rosemary and several dwarf brooms ; so far these are all somewhat dominated by the *Vinca major* (which we had expected to be prostrate) but we are hoping that in time they will grow less self-effacing. We also have two Veronica 'Autumn Glory,' with which we have not had much luck : the first two, planted in November 1959, died within weeks owing to the fierce and icy gales,

and their successors, planted in autumn 1960, though certainly alive, are getting very leggy ; what makes this odder is that a bush grown from a broken branch from one of the first pair is not merely thriving but neat and shapely. In the uppermost zone of this bank, apart from pinks and a few herbaceous plants (including a dearly-loved but misplaced peony which, since it has managed to produce even one bloom only in this third summer after planting, we dare not shift to a more suitable position) are *Hypericum calycinum* and *Santolina*, the one because it spreads even on soil like ours, and the other because I love the silvery foliage. The ugly post-and-wire boundary fences are screened by climbing roses, a Zephirine Drouhin and a New Dawn on each side ; on the lower bank a range of *Cotoneaster simonsii* serves the same purpose. This Spring we were lucky enough to be given two unnamed rhododendron seedlings, which we have planted on this bank : one is clearly a miniature of miniatures, with tiny mauve flowerets and leaves hardly more than a quarter of an inch long ; the other is a complete mystery which, after losing its first crop of leaves in the sharp Easter frosts, is now putting forth stout, rather broad foliage which perhaps offers a clue to its ultimate size.

Our most recent venture has been the ordering of a collection of a dozen heathers with different coloured foliage. This seemed a good scheme, since it becomes clearer and clearer that one secret of an attractive garden is plenty of evergreen foliage in varied tones and textures. And when the heathers arrived they were so unimaginably varied and delightful—yellow-green, gold-green, primrose-yellow, charcoal-and-silver, bronze, red-brown, and even a true rose-red—that we at once repeated the order. We are now hoping anxiously that they will survive the present drought (one at least, *Erica hybrida* 'Arthur Johnson,' is looking very withered) and take to the no doubt strange flavour of our exposed subsoil, which cannot be much disguised by the mere handfuls of peat with which they were planted. If they should fail, then we shall just have to start breaking our own rules and make up special peat walls for a new batch.

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A Few Trilliums

By STEWART MITCHELL

THE WOOD LILIES all have the characteristic arrangement of three leaves, three sepals and three petals. With this simple specification, and with only variations of colour and form of petals and foliage according to their species, a most satisfactory result is obtained.

Those described here are from North America and are the species commonly grown. There are also species from Japan, Korea and the Himalayas. They have tuberous roots generally, and are delightful plants for woodland conditions or partial shade. They like peaty leaf-mould mixtures with some drainage. Some grow in quite moist conditions in their native habitats, but culture in this country does not require exact imitation of these conditions according to my observation. This is, of course, a point known to cultivators of other plants from abroad. The specific names, or the epithets, are all adjectives, and in addition to my descriptions of a few Trilliums seen, only one of which grows in my garden, the meaning of the epithet will be given after the first mention of the names.

The best known Trillium is the Wake Robin, *Trillium grandiflorum* (large flowered), which is suited by a woodland setting and will grow there into very handsome clumps up to 2 ft. tall. Farrer says it "wants no more than the treatment of Wood Anemones." The deep green foliage, usually 12 to 18 ins. high, makes a fine background for the pure white flowers. These flowers can be 3 ins' across, on 2 to 3 in. stems, the petals interestingly veined and slightly reflexed at the pointed tips, showing a central boss of yellow stamens within, a very simple and pleasing arrangement. There are pink-flowered forms and doubles which have not thrilled me so much as a drift of the lovely white type seen on a May afternoon some time ago.

As you will agree, this beauty is hardly suitable for a small rock garden, and the one in my garden, *T. ovatum* (egg-shaped), is much more to scale (see Fig. 1, *Journal* No. 18). This in effect is a small *T. grandiflorum*. It grows 6 to 8 ins. tall, with similar foliage and with flowers of the same pure white as its larger relative, and blooms at the same time. It grows with me in considerable shade behind a hedge, in a sandy-peaty mixture, which appears to suit it. Seeming fit for exhibition at Perth Show in May last year, it was potted up and was placed second to a very similar Trillium labelled *T. nivale* (snowy). There was not much difference between them in height, although the leaves and petals of *T. nivale* were narrower, and it looked a neater plant. It is said that, as well as the leaves of *T. ovatum* being wider, they have no petioles or leaf stalks, while those of *T. nivale* have these small stems, but another authority has it that this point can vary in each species. Farrer questions if these two are truly distinct, and then goes on to state that they only grow some 4 ins. high or less. This seems to be confirmed by the article in the *Journal* No. 18. Could the two shown at Perth have both been drawn by the position in which

they were grown? Those three species—*TT. grandiflorum*, *ovatum* and *nivale*—are similar in appearance and cultural requirements, and are amongst the easiest to grow.

Next with some likeness in habit to the foregoing is *T. rivale* (growing by a brook), which, as its name suggests, would appear to need more moisture. This is the neatest of the Trilliums referred to in this article, and as seen at Keillour in April was 6 ins. high overall (Fig. 11). It was growing in the bank on the north side of the bridge, a part of the garden referred to by its owners as "Hell." The stems are dainty with a pale brownish tint. The leaves are an even medium green, a broad lance shape. (The spots showing on the leaves in Fig. 11 are rain drops). The white petals, with inside pepperings of a bricky-red on the lower half, are also more squat and upright, and not much reflexed at the tips as is the case with *T. grandiflorum*. The flower stems, as will be noticed, are about 4 ins. long, a characteristic which lifts the flowers well above the foliage. This species, despite its name, seems to be suited in drier conditions with some shade.

It was at Branklyn, on another May afternoon, that not only *T. grandiflorum*, but three others of differing species—*T. luteum* (yellow), *T. stylosum* (styled), and the most beautiful of all. *T. undulatum* (Fig. 13) (wavy)—were seen. These three species were all growing in the same raised bed above the highest path in the garden. Seemingly they were all getting the same cultural conditions and liking it, being associated with a few other peat-loving plants.

T. luteum, to take the first mentioned of the threesome referred to, has been given a bad name because its flowers tend to be a greenish-yellow. Some forms may do so, but those seen were quite a good medium yellow. The flowers seemed small in proportion to the foliage, but it is interesting to note that Grey in "Hardy Bulbs" refers to them as "very large," so that part of the specification can also vary. The general arrangement of its parts is the same as in *T. sessile* (stalkless) (Fig. 14), and the suggestion that it is a colour form of this species seems probable. First, there is the sturdy stem of 12 to 15 ins., then a whorl of three stemless green leaves with variable whitish mottlings. Three pale green sepals project at the point where the leaves come together or overlap, and above them sits without stem the three upright pointed petals of the yellow flower. The tuber, or rhizome as some authorities call it, has a horizontal growth in this species, so a clump will develop when suited.

T. sessile has a wide distribution in North America, and has therefore the chance of geographic variation. The two forms seen growing together at the Royal Botanic Garden, Edinburgh, were at the lowest part of the Peat Garden, amongst dwarf Rhododendrons. One with pure white flowers may be the *var. californicum* referred to by certain writers, the other was a delightful pale pink, with a deeper pink shading upwards from the base of the upright petals. The flowers were of good size and very lovely. Dark red and what might be termed dark maroon flowers have not been so pleasing. The most satisfactory

red-flowered form of this type was seen at Wisley in April last year, under the name of *T. chloropetalum* (green petalled), which obviously must be a variation of the type. Sampson Clay says of it that "its nature is sufficiently indicated in its name"! The foliage of this group varies in a remarkable way, a dark flowered form at the Savill Garden, Windsor Great Park, having a sort of three tone mottling of its leaves, reminding one of its popular name of "Toad Trillium" (Fig. 14).

T. stylosum is also said to be *T. nervosum* (veined) and *T. cernuum* (nodding). This is quite a different type of Trillium, the most noticeable change being its drooping flowers. This species has tall, bronze-coloured stems up to 18 ins., on which a mid-green threesome of veined and pointed leaves is set. From the midst of these leaves an arching flower stem of a few inches holds the flower hanging downwards, nodding in the slightest breeze. The rosy pink petals are much reflexed, displaying the central components prominently, just like some of its Lily relatives. *T. cernuum*, given specific rank apparently because of its white flowers, is reported by others to have pink forms also, so may well be the same.

T. undulatum is the beauty of the family, and seems more temperamental too. The distinguishing feature is the lovely bronze tint to stem, leaves and sepals. This does not seem to persist after flowering, and strangely enough is not referred to by all writers. The leaves are narrow, lance-shaped on short stems, and have wavy edges. The sepals are wider at the base than they are with other Trilliums, more leaf-like, and larger in proportion. The crowning beauty is the white flower on its short stem with narrow pointed petals arranged as in *T. grandiflorum*. Some veining is on those petals, a central one most prominent, the edges waved and even what could be termed deckled. To these features is added the distinctive crimson marking, most accurately described by Farrer as "stained inside with stripes and blurs of rich crimson at the base of the virginal petals." The species is said to be the same as *T. erythrocarpum* (bearing red fruit), a fitting description, and also *T. pictum* (painted) which is also quite apt. *T. undulatum* appears less easy to manage than most of the others, but it thrives at Branklyn, where it seems to need less shade and moisture. Although references mention a height of 4 ins. or more, those in the photography (Fig. 13) are about 7 to 8 ins. high overall.

The larger species would seem to be happiest in open woodland, or in a peat garden amongst shrubs sheltering them from the hottest sunshine. Smaller types will do well in peaty or woodland soil in a partially shaded nook in the rock garden. Early autumn is the best time to plant, an inch to four inches deep, according to the type of tuber, some having horizontal growth, others going downwards, while others again have more fibrous roots. Grey in "Hardy Bulbs" gives a very full description of many species, twenty of which he had actually grown, and Vol. III of this work, dealing with Liliaceae, can confidently be recommended to those wishing to read more about this family.

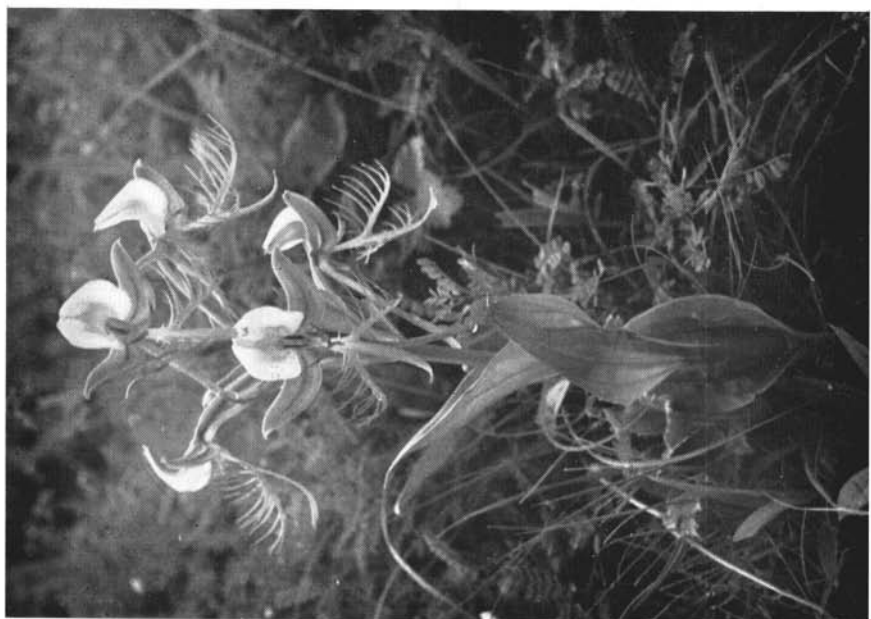


Fig. 2—*Habenaria intermedia* (see page 13) Photo—O. Polunin



Fig. 3—*Primula ramzanae* (see page 13)

Photo—O. Polunin



Fig. 4 — *Fritillaria cirrhosa* (see page 13) Photo — O. Polunin



Fig. 5—The Blue Poppy, *Meconopsis aculeata* (see page 16) Photo—
C. Polunin

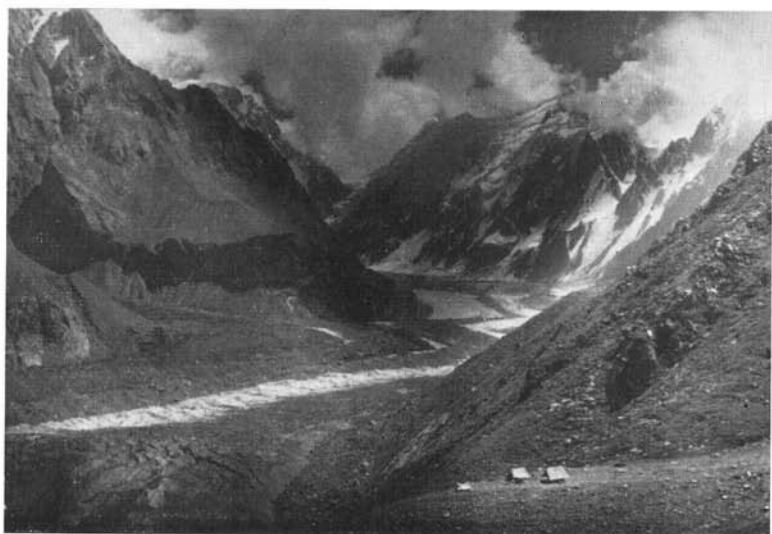


Fig. 6 — Temporary Base Camp (see page 17) *Photo — O. Polunin*



Fig. 7 — The Kashmir *Saussurea gossypiphora* at 14,000 feet (see page 17) *Photo — O. Polunin*



Photo—O. Polunin

Fig. 8 — *Saxifraga jacquemontiana* (see page 18)



Photo — O. Polunin

Fig. 9 — *Mertensia tibetica* (see page 18)



Fig. 10 — *Mertensia primuloides* (see page 18) *Photo — O. Polunin*



Fig. 11 -- *Trillium rivale* at Keillour (see page 31) *Photo — S. Mitchell*

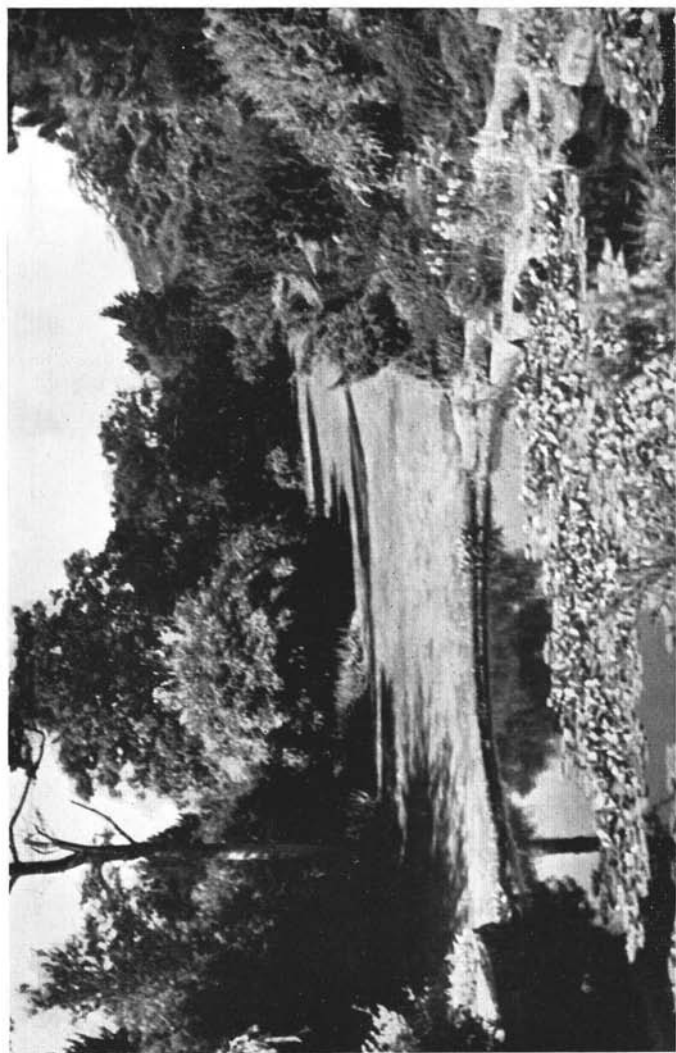


Photo — W Urte

Fig. 12—View in the garden at Northcote (see page 23)



Photo — S. Mitchell

Fig. 13 — *Trillium undulatum* at Branklyn (see pages 31 and 32)



Photo — S. Mitchell

Fig. 14 — *Trillium sessile* in Savile Garden (see pages 31 and 32)



Photo — H. Eslemont

Fig. 15 — *Rhododendron hanceanum nanum* (see page 40)
(Forrest Medal Plant at Perth Show, 1961)



Photo — H. Eslemont

Fig. 16 — *Jankaea heldreichii* (see page 24)
(Forrest Medal Plant at Dunfermline Show, 1961)

Notes from My Garden

By C. M. CREWDSON

THE WEATHER for the early part of 1961 was not very seasonable ; it was very wet in late January and the early part of February, and then was unusually dry in March. This resulted in some of my *Meconopsis* being very small and stunted when they reached flowering time, and it was also very disappointing to me to have some lovely plants of *Meconopsis superba* spoilt by frost and north-east winds when they too were just beginning to flower, and the lovely white petals were blackened.

A very pleasant colour scheme in one part of the garden has been *Primula helodoxa* interspersed with *Primula glomerata* and some plants of *Meconopsis betonicifolia* in the background, with a "hedge" on one side of *Meconopsis chelidonifolia*.

Primula glomerata is, I think, well worth growing ; it is a little richer violet than *P. capitata*, and as it reaches the flowering stage it turns its head upwards as though to look at the sky and is altogether very attractive, but I find slugs think the same and are very fond of it !

The hybrid *Celsia* x *Verbascum* has been a wonderful sight in a sink and has flowered continuously and is a very striking colour hard to describe, but a coppery-pink.

The peat wall has been very successful this year, partly, I think, because we have had sufficient rain for it never to be really dried out, and all the petiolaris primulas did well ; other species such as *P. cawdoriana* and *P. reidii williamsii* are looking very happy.

I have planted a good many *Primula parryi* in different positions, hoping to see them bloom ; I agree with Mr. Corsar who says in his book that *parryi* is not a difficult primula to keep, but very difficult to get it to flower. A charming little shrub for the peat wall is one rejoicing in a very long name, viz., *Tsusiophyllum tanakae* ; the flowers are very minute but my plant was quite white with them.

After being grown on from seed collected in Nepal in 1952 *Polygonatum* sp. suddenly elected to produce their little white flowers this year for the first time, the delay probably being my fault for having planted them in too shady a position. The Field Notes said "in shade of shrubs," but I fear I may have overdone the shade. The small white flowers were not very exciting, but I am looking forward to seeing the "bright red fruits" (if the birds will leave me any to see).

The various *Penstemon* species are a help to keep colour going in the summer. *Penstemon coelestinus* forms a trully prostrate mass and is charming with really rich blue flowers. *Penstemon* 'Flathead Lake' from Montana is very different—taller, and with flowers of a pretty coral-pink, and with *Cyananthus lobatus* close by they form a bright patch. I have a good many other *Penstemon* seedlings to try out, mostly from seed from Dr. Worth. *Penstemon aridus* has azure-blue

flowers and *P. nitidus* greyer leaves : I confess I find these Penstemon rather difficult in the seedling stage and are very prone to greenfly.

I think, though, that my greatest joy in the garden this year have been my plants of *Primula tayloriana*. I prefer to put these in the alpine house when in flower, as they dislike our Westmorland wet which we so often get in the early Spring, but to me they are well worth all the trouble they give me, as the lavender flowers (mineral violet, I believe, according to the official colour chart) are so very pretty and attractive.

In Search of *Daphne Petraea*

By H. ESLEMONT

THE CHANGE in temperature from our British climate was abrupt. We found it hot in Riva towards the end of June. Many of the party were quite content to spend the first day of their holiday restfully on a pleasure cruise on the thirty mile long Lake Garda. Limone with its lemon groves, and Malcesine with its picturesque old town and ancient castle nestling at the foot of Monte Baldo, were two of the interesting ports visited.

Our stay at Riva was limited to five days and, as plant locations were distant and uncertain, it was agreed to break up into small parties who would each hire a car to drive to a suitable starting point for the day's excursion.

Daphne petraea was high among the list of wanted plants ; Magasa was selected as a promising approach to the Cima Tombea, one of its few known locations.

It was a two hour journey by car to Magasa, and a further two hours steady climb in the hot sunshine brought the Cima only within view. Obviously neither time nor energy would permit a serious attempt to climb the Cima that day.

An exploration of nearby wooded slopes proved rewarding. We found large plants of deep red *Cyclamen europeum* (Fig. 17), and the eagle eye of our leader spotted an unusually large seed capsule of a snowdrop, probably a form of *Galanthus nivalis*. An interesting primula whose large leaves were covered with white farina was growing in quantity in the nearby rocks. Plants of this have established in tufa and are believed to be *P. albo cincta*.

One is generally advised, when collecting plants, to select small specimens, but primulas seem to be an exception to this rule. I find that if their roots are carefully packed in damp sphagnum and wrapped in polythene, quite large plants can be brought home and established.

Phyteuma comosum in full flower was found in a rock crevice, conveniently placed for the photographer. This was a more caespitose form than the plants found in Val Lunga in 1958, where the flower stems were long and pendant. A collected plant from Val Lunga has

maintained its habit in cultivation. Incidentally, some of the largest brown snails I have ever seen were making their leisurely way along the rock towards the phyteuma.

On a succeeding day a second and successful attempt to find the daphne was made from a point above the Tremalzo pass. The descent from the pass in a hired vintage Alfa Romeo can be quite a hair-raising experience and is not to be recommended to those who dislike looking down from heights.

A number of interesting plants were found near the top of the pass. *Primula spectabilis* was plentiful, although the flourish was almost over. It is a beautiful plant and one I should like to see gracing the show benches. I am informed, however, that it is shy flowering in cultivation. Another challenge !

A good form of *Ranunculus bilobus* and large drifts of hutchinsia were growing in the stony ground nearby, and the attractive little *Viola dubyana* (Fig. 18) brightened the poor soil near the roadside.

Our journey continued upwards over a rough track until the car could go no further, and from there we started our walk in the direction of the Cima Tombea. We felt that at least we were approaching it from a higher altitude than we had done on the previous occasion.

We found a single plant of the rare *Silene elizabethae* with its roots deeply embedded in the wayside rock ; it was the only one seen that day. We also saw an interesting gentian of the acaulis type which showed a distinct preference for stony banks rather than the nearby turf.

A three hour walk again failed to bring us near the Cima, but our approach at the higher level brought its reward.

A careful search of a very steep south facing slope revealed the leaves of a single plant of *Daphne petraea*, tightly wedged in a long rock crevice. Twenty minutes hard work with hammer and chisel opened up a sufficient gap to enable some well-rooted pieces to be extracted.

The visit to Riva had been worth while.

Letters, Plants and Problems

AN OPEN LETTER TO OUR PRESIDENT

Dear Dr. Tod,

Several times recently you have spoken and written of the necessity for obtaining new members for the S.R.G.C., or alternatively of raising the subscription. This has provoked some thought and some discussion with my friends.

Presumably the great majority of knowledgeable and experienced rock gardeners in Scotland have already joined, so that if new members in any numbers are to be found they must come from the ranks of the beginners and the less experienced.

If this is accepted, then it seems to me that we must make some special effort to cater for them. At present our lectures and week-ends tend to emphasise the rare and tricky plants and to promote discussion amongst the more experienced members, whilst others remain silent. Although I do not suggest that such lectures should be eliminated, I do suggest that we should obtain occasional articles for our *Journal* and particularly arrange week-end gatherings on more mundane matters. The following subjects suggest themselves: "Constructing a Rock Garden," "Soils and Composts for the Rock Garden," "Propagation," "Easily Grown and Easily Obtained Plants to give a show of Colour throughout the Year." There are many other topics which will come to mind.

It may be said in reply that such subjects should be dealt with at County level, but I do not believe that this is the complete answer. We want and need to encourage the attendance of beginners at week-ends if they are to be helped to a greater knowledge and experience; and, when all is said and done, this must surely be the *raison d'être* of our Club.

Yours sincerely,
 GEORGE F. HUTCHINSON

"Bowness,"

55 Jesmond Park West,
 Newcastle-upon-Tyne, 7.
 31st January 1962.

Dear Mr. Editor,

Many local groups hold a meeting called "Members' Night." This may take many forms, but the usual expectation is that members will show coloured slides of one sort or another. By now many members will be finding difficulty in proffering a new aspect of their gardening and I therefore hasten to acquaint you of an idea and experiment which I put into effect yesterday.

I have for some time been interested in the leaves of Rhododendrons, as in many cases they can be even more fascinating than the flowers. After looking at them through my microscope it occurred to me that it would be possible to project at least some of them direct on to the screen. This I tried by pressing a leaf between two 2 in. \times 2 in. glasses. The image was a little dark but clear, and I have no doubt that, given the pains in preparation, some excellent slides could so be made.

The principle applies of course to any other leaf or plant part provided it is translucent to a sufficient extent. The Rhododendrons with indumentum are of course out of the question, taken as a whole, but if a small portion of the hairiness is detached a good slide can be made of it.

Though I am basing my experience purely on the leaf of one genus, I have confidence that members will in their ingenuity find plenty of examples to ravish the eye and inform the intellect.

Yours sincerely,

CYRIL F. BARNES

(There is an interesting short article by R. M. Senior on this subject in A.G.S. Bulletin No. 55.—*Editor.*)

Copy of Letter to Major-General D. M. Murray-Lyon, January 1962

Dear Sir,

I have been very interested in reading your article on gentians in the *Gardeners' Chronicle* for 30th December, and particularly the high value you place on *G. macaulayi* "Kingfisher," which name was given by Jack Drake to a plant from this garden. I wonder if you know the history of this fine plant.

Many years ago in the early thirties I was taken to tea with Macaulay at his house near the Crinan Canal. After tea he showed us round the garden and his small nursery beds of his hybrid *Gentiana sino-ornata* and *G. farreri*. Later he sent me three seedlings of this cross without any name; I called them *G. macaulayi* "Earliest," "Lighter and Later," and "Not so Good."

These I grew in my garden at The Bush, Milton Bridge, and when Edinburgh University bought this and I came here, I brought them with me. Here they grew well and increased. Jack Drake saw them and took a fancy to them, and of course grew them far better than I did.

After a couple of years he wrote me that the variety "Lighter and Later" was so good he wanted to call it "Kingfisher"—and this now is one of his best. I wonder whether you grow the very long branched *G. sino-ornata* which is certainly three times as long as the normal and roots all along the stems; it can climb through a *Menziesia* here.

Yours, etc.,

R. D. TROTTER

Brin House,
Flichity,
Inverness.

SOME SUGGESTIONS SENT IN BY A MEMBER TO TRY TO INCREASE ATTENDANCES AT WINTER EVENING MEETINGS

1. An interesting and varied programme chosen for the average member with an occasional evening mainly for beginners. A good speaker from the A.G.S. once a season will always prove an attraction.

2. In addition to the season's syllabus, all members should be post-carded a week before each meeting giving details of the speaker and his subject. This will result in a marked improvement in attendances.
3. A well-chosen meeting place, even if more expensive, may prove a good investment, as the social side of the Club over a cup of tea or coffee is an important one.
4. A season ticket costing, say, 10/- to cover the cost of tea, hall, etc., will certainly save a deal of work and may be quite profitable.
5. An auction sale of plants held not oftener than once a season will help the funds considerably. Try to get quality rather than quantity in the plants offered for sale.

Plant Notes

ERICA CARNEA SPRINGWOOD

DR. DAVIDSON in his Clark Memorial Lecture published in the April 1961 *Journal* refers (p. 253) to the finding of this heath in Italy.

The actual story, as told me by the finder, may be of historical interest.

Mr. and Mrs. Walker, who lived for many years at a house called "Springwood" on the outskirts of Stirling, where they had a lovely garden, were climbing many years ago in the Dolomites. Seeing a heavy thunderstorm coming up, they started to run down for shelter. Mrs. Walker fell and broke or sprained her ankle and Mr. Walker had to leave her lying where she fell to seek help.

While lying on the ground Mrs. Walker noticed what seemed to be an exceptionally good *E. carnea* growing beside her. She grubbed up a root, took it home to Springwood, and grew it in the rock garden. When it had been established there she thought it sufficiently outstanding to send to Kew for identification.

At Kew it was found to be a new variety and was given the name "Springwood." Mr. and Mrs. Walker later gave plants to Messrs. Stormonth of Carlisle with permission to put it on the market.

I still have the plant given me in about 1931 by Mr. Walker. It is now some 3 ft. in diameter.

E. c. "Springwood" (pink) resulted from two seedlings found in the garden at Springwood in a bed of "Springwood white." One of these was vegetatively propagated by Mr. Walker, the other he gave to me.

Incidentally, *E. c.* "Springwood" is the only *carnea* in my experience which produces self-sown seedlings freely.

J. C. DUNDAS

PRIMULA HYBRID : EUROPEAN

THIS INTERESTING primula, estimated to be *rubra* x *viscosa*, was collected by Mr. H. Esslemont, Aberdeen, during the Alpine Garden Society Tour to Northern Italy in July 1960. It was found growing among large boulders below the tree line, at an elevation of 5000 ft., on Monte Moro in the Dolomites, and was out of flower when collected.

The woody stems, six inches long, indicate the trailing saxatile nature of the plant, and these elongate with each year's growth. The previous year's leaf growth withers as the stems mature, and thus the plant takes on a gnarled, rugged appearance, characteristic surely of the environment in its natural home. Judging by the evidence of past leaf growth, the plant collected is estimated to be eight or nine years old, considering which, and with due regard to the collector's care, it travelled, and re-established itself extremely well, in a five-inch pot.

The habit of the plant was carefully considered in potting up, the roots being sandwiched between two pieces of granite through to the coarse bottom drainage, in a compost of equal parts loam, leaf-mould and coarse sand. By Spring 1961, after being over-wintered, the pot plunged in sand in a Crittall frame, it was necessary to pot up to six inches, the roots having penetrated the drainage hole of the original pot. A rewarding sight at this time was evidence of new growth at the base of the two stems.

The flowers, an inch across, borne in neat umbels of six at the stem tips, were of good substance, lasting fully three weeks, and of a rich warm pink, each with a white eye. Each flower cluster is supported by a ruff of bright glossy indented leaves immediately below, under which the debris of former leaf growth was trimmed for exhibition at Aberdeen Show in April 1961.

Since the Show, the pot has been plunged in the open garden, high up to ensure good drainage, and to the west of a rock in order to keep the roots cool and moist. The general air of the plant suggests acceptance of its new environment in Aberdeenshire, as it has meantime set and ripened seed.

J. CROSLAND

PULSATILLA x SOLDANELLA

HERE BEGINNETH the odd tale of some Pulsatillas which turned into Soldanellas.

At the Edinburgh Week of the International Conference last April two charming visitors from the Continent wandered one evening, with their hostess, in her garden.

"You have been so kind," said they. "What plants could we send you from our country"?

"Two or three Pulsatillas, if you please," said the hostess, eyeing her solitary plant.

Foreseeing cats-cradles of red tape around their transit, and knowing she would be in Switzerland in summer, she asked that the plants should be sent, about a certain date, to her hotel in the Engadine.

Meanwhile, she armed herself with the appropriate embossed parchment vellum from H.M. Ministry of Agriculture, Fisheries, and Food.

Came the date—and came the Poste staggering under an enormous parcel which contained *divots* of lovely, lusty Soldanellas !

The hostess was most grateful, and loved her metamorphosed Pulsatillas ; *but* . . . she jettisoned some stockings, she gave away a book, she travelled in two extra items of (unseen) clothing—and *still* some of those Soldanellas bulged beyond capacity of transport.

So, sadly, trowel in hand, she tottered to the Luftseilbahn and (mit Soldanellas) became airborne to a lovely ridge where melting drifts still lay, crystalline, a-drip upon the soggy turf. And there, among their kinsmen, the little plants became again terrestrial.

Far below them stretch the great Glaciers of the Roseg Tal and Morteratsch, and beyond these the dazzling snows of Piz Palu, Bellavista, Piz Bernina. And the name of that ridge, as marked on all the maps, is Paradis.

* * *

One month later : Those which “took out British Passports” seem to have settled well in their new home and, so far, look quite happy. They will get cloches over them in Autumn, or windolite, which their owner finds the best substitute for snow—and *lots* of slug-bait !
Edinburgh. W. R.

RHODODENDRON HANCEANUM, VAR. NANUM

THIS DWARF rhododendron of the triflorum series has proved itself one of the most reliably hardy of a collection grown in the open ground in the somewhat severe east coast conditions of Deeside, Aberdeenshire. The small rooted specimen acquired has made steady growth during the seven years since it was planted in the peat border, to the west side of a peat wall designed to protect it against morning sun after frost. It has flowered with increasing vigour in the last three years, and has in this period survived zero degree Fahrenheit.

During the winter 1960-61 it was given the protection of a garden frame to safeguard its condition, and at the same time provide some degree of control over flowering, for exhibition. The response to this modest care was such that the judges saw fit, at Perth Show, to award the Forrest Medal (Fig. 15).

There appears to be some doubt as to the validity of the variety *nanum*, but the eight-year plant exhibited was less than 12 inches high, about 18 inches across, bearing in neat loose trusses over two hundred florets, six to eight per truss.

The flowers, of a pleasing bright yellow about an inch long, are enhanced by the prominent cream, chocolate-tipped stamens, and the general character of the shrub is supported by the young bronze leaves which in due course mature to a deep glossy olive, obovate, about two inches in length.

An excellent dwarf, to be recommended for inclusion in any collection of ericaceous shrubs.

J. CROSLAND

Show Reports

ABERDEEN

THE 1961 SHOW in Aberdeen will not be remembered as one of the most successful which have been held here in recent years. It was held on the 6th and 7th of April—an early date for the north-east—but in all fairness a date for which our Committee had made a request, since it had been hoped that by having our Show early we would see some different plants to those which we are in the habit of seeing here in May. We reckoned, however, without the weather ! Who would have forecast the severity of the frost which hit us just before the Show and did such tremendous damage to the plants, so much so that one well-known Nurseryman had to advise us at the last minute that he had nothing left to show and had therefore to cancel his stand. Be this as it may, we presented the Show as best we could with what was available, and in a Schedule of 70 classes there were entries for 53 of them.

In the matter of awards, the Judges in their wisdom awarded the Forrest Medal to a *Primula* entered by Mr. J. D. Crosland of Torphins, *Primula rubra x viscosa*. This was a fine-grown plant and was one of a larger number of fine specimens entered by this keen member.

The Aberdeen Bronze Medal awarded for the best entry in a 3 pan class for three plants of different species or hybrids was awarded to Mr. H. Esslemont, whose prize winning entry consisted of 1 pan *Pleione limprichtii*, 1 pan *Linum elegans* and 1 pan *Kalmiopsis leachiana*. Second place in this class was given to Mr. A. D. Reid's entry of 1 pan *Shortia uniflora grandiflora*, 1 pan *Primula* "Linda Pope" and 1 pan *Rhododendron cerebreflorum*. Mr. Reid is a newcomer to Aberdeen but is well-known in the south, and it looks as if he has some fine plants to show when he gets his new home established.

The Bronze Medal went this year to a relative newcomer to the show benches, and this encouraging fact was applauded by all. The winner was Mrs. Blair of Hatton Court, Milltimber. Mrs. Blair had a number of entries in various classes in Class I.

The Walker of Portlethen Trophy was awarded to Mr. Crosland of Torphins, who once again supported the Show so well with his many choice exhibits grown in his Deeside garden. A large number of his plants won him a first place in the many classes in which he entered.

Amongst other exhibits in the Show were a number of rare plants, and some, of course, not so rare, but nonetheless welcome, and worthy of mention, e.g. :—

Pachystima canbyi—a good plant, well grown by Mr. A. D. Reid, but in the opinion of many not in itself striking.

Glaucidium palmatum—with 6 flowers as exhibited by Dr. H. Robertson of Cults.

Saxifraga diapensioides—rather an attractive little thing exhibited by Mr. Crosland.

Vaccinium nummularia—a good plant exhibited by Mr. A. D. Reid.

On a special bench Mr. H. Esslemont showed a wide variety of plants growing on Tufa. This aroused much interest and won a Certificate of Merit from the Judges. Some rare plants were on show in this exhibit, amongst the most interesting of which were :—

Anchusa caespitosa—a beautiful little plant with a vivid blue flower.

Raoulia eximea—from Australia. Very curious.

Eritrichium nanum—well-grown plant.

Daphne petraea—on its own root.

Ranunculus chordorhizos—a rather unusual grey-foliaged plant.

Myosotis decora—a beautiful white-flowered dwarf plant.

There was an excellent exhibit from the Cruickshank Botanical Garden and great praise is due to Mr. Sutherland, the gardener there, for his excellent display. The Judges awarded a Certificate of Merit to this exhibit and we would like to express our thanks to Professor Weatherley of the Botany Department and also to Mr. Sutherland of the Cruickshank Garden for their great help. Amongst the plants of interest on the bench were : *Andromeda polifolia nana*, *Pleione formosana*, *Pleione priceii* and *Phyllodoce aleutica caerulea*.

Some of our members have been doing quite well with seed raising. Mr. Esslemont showed a very attractive arrangement of small pots each with a small *Androsace imbricata* in flower, also a well-grown pan with *Aquilegia jonesii*. These were sown in July 1958 (germinated April 1959 with an appearance similar to cress). Seed was from Ranger U.S.A. Mrs. Dyas also showed some interesting results from her seed sowing with entries of *Androsace pyrenaica* and *Lewisia brachycalyx*. Mrs. Wightman had successful entries too in the shape of *Sedum spathulifolium* sown in 1959 and *Corydalis cheilanthifolium* sown at the same time. Mr. Crosland exhibited *Silene petersoni* from seed sown by him, and obtained through the S.R.G.C. Seed Distribution. Also *Erigeron compositus*, sown in January 1960, both lots of seed having been collected by Dr. Worth, the former from Utah and the latter from Wyoming.

There were more entries from the newcomers this year and this pleased us a great deal. We hope that this will continue in future Shows, for we are always very glad to see new exhibitors coming along, as well as those who have quite a bit of Show experience behind them.

W. MITCHELL, Lt.-Col.,
Hon. Show Secretary.

GLASGOW

THE GLASGOW SHOW was held in the McLellan Galleries on 11th and 12th April 1961 and was honoured by the presence of the Lord Provost, Mrs. Roberts, who opened it. The judges, to whom we are greatly indebted, were Messrs. Evans, Livingstone and Mowat.

Like the Shows at Dumfries and Aberdeen, we suffered from damage to plants by frost. A mild winter and early spring had induced liberal and precocious flowering. Then came collapse. The rhododendrons 'were in flushing when blighting was nearest' and this section had to be cancelled. This was the more regrettable since there had been a very good entry.

Entries in Section II had been meagre but an appeal to members was well rewarded. Not a few ewe-lambs were brought out that proved to be quite considerable sheep. Numerically the entries were above average. There was a wide range of plants, many of which were of good quality. The Bronze Medal and The James A. Wilson Challenge Trophy for most points in Section II were awarded to Miss Margaret Thomson, Milngavie. This entry included good specimens of *Daphne retusa*, *Hacquetia epipactis*, *Helichrysum marginatum*, and *Sedum dasyphyllum*.

In Section I a thinness here and there was offset by the variety of plants shown. Mr. William Urie had conspicuous success by gaining the three top awards in the section. He was awarded The Dr. William Buchanan Memorial Rose Bowl and a Silver Medal for *Rhodo. williamsianum*, *Daphne rupestris*, *Phyllodoce aleutica*, *Pleione formosana*, *Primula rosea*, and *Schizocodon soldanelloides magnus (macrophyllus ?)*. Mr. E. Darling was a close second with *Andromeda polifolia nana*, *Polygala chamaebuxus purpurea*, *Primula rosea*, *Orobis albo-roseus*, *Sanguinaria canadensis fl. pl.* and *Uvularia grandiflora*, all well-flowered and vigorous.

In the three-pan class Mr. Urie gained The Henry Archibald Rose Bowl with well-flowered pans of *Cassiope lycopodioides*, *Daphne collina*, and *Phyllodoce empetriformis*. This *Daphne* won the George Forrest Medal for the most meritorious plant in the Show. Mr. John Archibald, winner of the Crawford Challenge Cup for most points in Section I (excluding Classes 1 and 2), showed *Celsia dumulosa*, *Pyrus japonica*, and *Soldanella carpatica* in Class 2. Miss M. E. Gibson, who gained third prize, presented a finely flowered *Vaccinium nummularia*, and an equally floriferous *Veronica tetrastricha* which had received the Forrest Medal at Dumfries. Other items of note were *Orchis sambucina* and *O. pinnaticola* shown by Dr. Dean, *Lewisia brachycalyx* and *L. cotyledon* shown by Miss E. Gibson, and *Haberlea virginale* shown by Mr. Archibald.

Lewisias were thinly represented owing to the early date, but good exhibits were tabled by Mr. and Mrs. Darling, Mr. Archibald and Miss M. E. Gibson. Miniature narcissi were scarce but good, notably *N. bulbocodium* shown by Mrs. C. Allan and Mrs. W. Collis Brown. The latter showed a fine pan of *N. rupicola*. Sedums and sempervivums were well represented but some were out of character. The Ericaceae were helped out by good plants of *Cassiope fastigiata*, *C. mertensiana gracilis* and the newer *C. "Edinburgh."* Mrs. Collis

Brown was first with her miniature garden and for a bowl of cut flowers of rock plants.

In Section IV there was a fine chromatic display of azaleas, polyanthus and primulas. Especially worthy were azaleas shown by Miss C. K. Wood (1st) and Mrs. Taggart (2nd), and a fine plant of *Prim. "Barrowby Gem"* shown by Mr. and Mrs. Darling. Nobody could ignore the arresting beauty of Dr. Dean's greenhouse plant, the Kangaroo Thorn (*Acacia armata*) with its fine habit and its dark green foliage which make a wonderful contrast to its rich display of golden flowers. Certificates of Merit were deservedly awarded to Miss MacDonald, Bearsden, and Mr. Alex. Watt, Alexandria, for non-competitive displays. Mrs. MacDonald's was a finely balanced group of greenhouse plants—cyclamen, cinerarias, and primulas. Mr. Watt showed good specimens of *Ilex crenata* and a raised group of dwarf conifers.

Trade exhibits were fewer than usual but invaluable as part of the floral display. An unusual feature was a very fine exhibit staged by the Scottish Orchid Society. This aroused much interest and was awarded a Gold Medal. A Large Gold Medal was awarded to William B. Boyd, South Arthurlie, Barrhead, for a well set-up stand of acers, azaleas, aquilegias, cytusus, fritillarias and primulas. To Edrom Nurseries went a Gold Medal for a beautiful range of acers, azaleas, anemones, tulipa species, and primulas. At this stand, and at Mr. Boyd's too, much interest was aroused by the dwarf *Fritillaria citrina*.

Knockdolian Gardens, Girvan, were also awarded a Gold Medal. The saxifrages, erythroniums, and primulas, attractive as they were, had to yield to the arresting brilliance of *Pleione formosanum* and *P. pricei*, which caused a traffic jam at times. The composts of Grant of West Calder proved irresistible to many. Further interest was maintained by the extensive collection of books on gardening presented by John Smith & Sons (Glasgow), by the bright and varied paintings of high quality shown by Miss Daisy Anderson, who is one of our members, and by the colourful display of jewellery laid out by Floral Handicrafts.

W. H. M., C.R.

PERTH

THE PERTH SHOW was held in the Lesser City Hall on Thursday and Friday, 11th and 12th May 1961, and was opened by Lady Abertay. The number of entries was a little down on last years'. A very gratifying feature of the Show, however, was the increase in the number of those entering in Section II, an increase of 40% on last year's figure.

The standard of exhibits in Section II was very high, especially in view of the number exhibiting for the first time. Many of the exhibits in this section were definitely of a higher standard than those in corresponding classes in Section I, which augurs well for future Shows.

Some of the classes in both Sections I and II were rather poorly filled, presumably due largely to the disastrous frost at the beginning of April. This was particularly noticeable in the Rhododendron classes though the plants which were shown were of excellent quality.

The Forrest Medal was awarded to *Rhododendron hanceanum nanum* (Fig. 15), shown by Mr. J. D. Crosland, Torphins. Mr. Crosland also won the Alexander Caird Trophy in the six pan class, the plants shown being *Rh. hanceanum nanum*, *Penstemon nitidus* (a lovely, clear sky blue), *Omphalogramma vinciflora*, *Tecophilea cyanocrocus*, *Corydalis cashmeriana*, and *Phlox triovulata*. The Dundas Quaich, for three pans, also went to Aberdeenshire, being won by Dr. Hamish Robertson with *Rhododendron yakusimana*, still quite a rare plant from Japan, with comparatively large white bells slightly flushed with pink, *Ramonda pyrenaica rosea*, and, perhaps the most eye-catching of the three, a ten-inch pan of *Primula reidii* v. *williamsii* in full flourish. For this last mentioned pan Dr. Robertson was awarded a Certificate of Merit. This must have been a difficult class to judge, as the other exhibits included many well-grown plants.

The L. C. Middleton Challenge Trophy for the competitor gaining the highest aggregate in Section I was won by Mr. David G. Dorward, Monikie, Angus, and the Bronze Medal for most points in Section II was won by Mrs. M. G. Barrie, Almondbank.

The plants I am now going to mention are those which caught my eye either by reason of being particularly well-grown, rare on the show bench, or interesting for some other reason. Two pans of new, rare, or difficult—1st, *Andromeda polifolia alba* and *Pinguicula grandiflora*: one pan Scottish native—1st, *Myosotis rupicola* (the real Ben Lawers form, dwarf and compact) by Mr. Esslemont, Aberdeen. The fern class lacked variety, all exhibits being of the oak fern, *Polypodium dryopteris*, an easy but attractive native.

Gentians were few in number, most being over, due to the recent warm weather. First prize went to Mr. Dorward for a fine plant of *G. verna*, and 2nd to Major-General and Mrs. Murray-Lyon for a pan of *G. pyrenaica*. This latter is not often seen, though not really difficult if grown in cool, moist soil. The winner in the rhododendron class was Miss Scott Murray, Perth, with a good plant of *R. impeditum*.

The saxifrage classes were not well filled; why are they not more grown? They certainly are mostly easy, floriferous, and showy, and also attractive when not in flower. First prize in each class went to Major-General and Mrs. Murray-Lyon, plants shown being *S. aizoon baldensis* in a lump of tufa, and *S. cymbalaria*. This latter is a very easy plant, a biennial which seeds itself in cool, humusy soil, amongst dwarf rhododendrons, for example. Being small, shallow-rooting and easy to pull out, it does not become a nuisance. Certainly its bright yellow flowers always seem to catch the eye of visitors to Show or garden.

In the class for Liliaceae Mrs. S. G. Dow was first with a fine pot of *Trillium ovatum*. Only one pot of tulips was on show, the attractive orange-bronze *Tulipa orphanidea* from Greece. First and second in dwarf shrubs went to *Daphne sericea* and *Rosmarinus prostratus*, a plant not hardy everywhere.

The classes for dwarf conifers contained a number of nice plants. In the class for three, Mr. James Rorie, Dundee, gained first prize with *Picea clanbrassiliana*, *Juniperus* "Bonim Isle," and *Chamaecyparis obtusa nana*. Mr. and Mrs. T. A. Stuart, Pitlochry, were first in the Campanulaceae class with a well-grown and well-budded plant of *Phyteuma comosum*. Mr. Rorie got a well-deserved first in Ericaceae and Vacciniaceae for *Vaccinium nummularia*. Lewisias seemed less numerous than usual, but Mr. Terris, Kirkcaldy, was first in the three pan class and Mr. S. Mitchell in the one pan class. A particularly good pot of *Ranunculus graminifolius* got a first and there was also a good pan of *R. amplexicaulis*, and Mrs. Dow got a first with *Potentilla verna*.

In Section II a very well-grown plant of *Corydalis cashmeriana* marked 'N. A. S.' might well have taken a first prize in Section I. A first went to a beautiful plant of *Gentiana acaulis* (with 32 flowers) exhibited by Mr. K. J. Green, Pitlochry, who also got a first with a nice plant of *Antennaria dioica rosea*. He also gained firsts for *Saxifraga aizoon rosea* and *Gentiana alpina*, which has the reputation of being free-flowering, as this one certainly was. Mrs. Murray, Crail, was first for *Androsace* and Mr. A. S. Watson, Dundee, for conifers with *Picea albertiana conica*. A plant not often seen on the show bench is *Leucothoe keiskei*.

Trade stands were fewer than usual, due partly, perhaps, to date clashing with Chelsea Show, but a regular supporter, Mr. J. R. Aitken, Orchardbank Nursery, Perth, had a stand as usual notable for well-chosen and placed mossy stones which looked as if they had been there for years. Noticeable among his plants were *Rhododendron* 'May Day,' *Trillium grandiflorum*, and *Anemone sylvestris*. He was awarded a Large Gold Medal.

Messrs. Laurie of Dundee were awarded a Gold Medal for a stand chiefly of shrubs and dwarf conifers, while Messrs. Alexander & Brown displayed a large variety of implements, sundries, and some novelty gadgets.

Thanks to the kindness of Mr. Jeffries, Chief Librarian, the County Library had a stand displaying a good selection of gardening books, and the Superintendent of Parks, Perth, very kindly put up a large and attractive display of Begonia species to show the wide variation in form, foliage, and flower in this family. Another display which attracted a lot of attention was provided by members of the Scottish Amateur Orchid Society. Thanks are due to them for the trouble taken in gathering this collection of plants from a very wide area. Both of these exhibits were awarded Certificates of Merit.

DUNFERMLINE

THE DUNFERMLINE SHOW, held as usual in the Music Pavilion, with the Club President in the chair, was declared open in a very apt speech by Mrs. Bonnar, who afterwards presented the trophies to their winners. A high standard of exhibits was attained, and the premier award of the Show, the Forrest Medal, went to a plant of *Jankaëa heldreichii* (shown by Mr. H. Esslemont, of Aberdeen) (Fig. 16), gained 1st prize in Class 2, followed by *Ourisia ruellioides* from Patagonia, and *Primula kingii*. Out of four good entries in the 3 pan class for the Mrs. Robertson Challenge Cup, Mr. Crosland of Aberdeen was first with *Dianthus subacaulis*, *Primula williamsii*, and *Fritillaria camschatsensis*; runner-up was Mrs. Boyd-Harvey with plants of *Oxalis laciniata*, *Lewisia* "Golden West," and *Verbascum dumulosum*. A fine pan of *Polygala calcarea* won the native class (class 3) and a most attractive *Primula reidii* the primula class. Mr. Carstairs won the saxifrage class (7 entries) with a fine pan of *S.* "Tumbling Waters."

The sedum and sempervivum classes (9 and 10) each brought out 7 entries and were won by Mr. Esslemont. The best of some good campanulas was judged to be *C. carpatha*, followed by a plant of *C. aucheri*. Two interesting plants in Class 14 were *Hypochaeris lanata* and *Euryops evansii*. Throughout the subsequent classes of Section I many interesting plants were on show, including a fine *Veronica* shown by Mrs. Tweedie in Class 19, *Salvia argentea alpina* and *Senecio uniflorus* in Class 20, and *Helichrysum coralloides* in Class 22. A plant not often seen at Shows is *Silene hookeri*.

In Section II Mr. Robert Henderson of Dollar exhibited a most attractive miniature rock garden planted on a slab of tufa. The Bronze Medal for most points in this section was won by Mrs. E. S. Brown, Dunfermline, and the Carnegie Dunfermline Trust Trophy, for most points in Section I, by Mr. H. Esslemont, Aberdeen. The fight for most points in Section IV was keenly fought out, but Mr. J. Y. Carstairs carried off the Institute of Quarrying Quaich by one point ahead of Mr. Gordon Hill.

The Trade stands were most attractive features and carried a number of extremely interesting plants. It is to be hoped that those members of the trade who so loyally support Club Shows find their efforts worth while, because all thanks are due to them for the great amount of work in which staging exhibits at Shows must involve them. Thanks are also due to all those who compete at our Shows and in so doing provide so much pleasure for others as well as for themselves. And how could any Show function without that self-effacing band of willing helpers who do so much behind the scenes in getting the Show smoothly organised for our—the spectators'—pleasure? Our very sincere thanks to them!

NORTH BERWICK

7th September 1961

AS USUAL the weather preceding the Autumn Show was quite unusual ! Many members were therefore unable to produce the plants they might reasonably have expected to flower in a normal September, if there is such a thing. The remedy is to have a garden full of plants which are able to flower at any time between August and October. The classes for plants of foliage interest were very well filled, but visitors who pay at the door expect to see flowers at a Flower Show as well as foliage, cushion plants, sempervivums and conifers.

The plants on show were provided by only twenty-five members, five of whom had travelled to the Show from a distance. The Show Secretary and his committee are most grateful to these members from outside the county, not only for swelling the number of entries, but also for giving North Berwick the chance of seeing quite a different range of plants from those grown locally.

The Forrest Medal was awarded to a fine plant of *Cyclamen neapolitanum* exhibited by Mrs. Boyd-Harvey. This had been in flower since early in August, so that on September 7th the flowers, instead of arising out of bare earth, were poised above a lovely mosaic of marbled leaves. Together with *Saussurea stella* and *Campanula excisa* it formed the three-pan entry for which Mrs. Boyde-Harvey was awarded the East Lothian Trophy. Other plants in the three-pan class were *Anchusa caespitosa*, *Primula sheriffae*, and *Rupicapnos africana* exhibited by Mr. Harold Esslemont, and *Satyrium coriifolium*, *Draba polytricha* and *Petrocosmea petrei* shown by Mr. Crosland.

Cyclamen neapolitanum and its white form were exhibited in the two-pan class by the Hon. Miriam Pease, and in this case both plants had leaves not yet fully emerged and unfolded.

In the New, Rare and Difficult class a first went to Mrs. Boyd-Harvey's *Nassauvia revoluta* from Patagonia, and a second to Miss Pape's well-grown *Helichysum coralloides*. Major-General Murray-Lyon had a well-flowered specimen of *Origanum amanum*, and although it was the only entry in its class actually in flower at the time of the Show, its leaves were past their best and were showing the yellow of approaching winter.

In the class for a rock garden plant in fruit an interesting contrast was provided by the pink fruits of *Pratia treadwellii* (Miss Weeks) and the large orange berries of *Nertera depressa* (Mrs. Maule). Both plants had been grown in the open ground, although they are sometimes accused of being only of borderline hardiness.

In the class for Astilbe, contrast was provided by a fine large clump of *A. simplicifolia* (Miss Nancy Bowe) and the small exquisite *A. glaberrima saxatilis* (Mr. Crosland).

Most heathers entered were from the coastal strip of East Lothian—notorious “un-calluna” country with a high pH. It is not very

easy to make a fine large lifted plant look right in a pot, but in Classes 17 and 18 Mr. Jack Burrows had succeeded admirably with *Calluna vulgaris f.p.*, *Calluna minima*, and *Calluna* "H. E. Beale." The Special Prize for a plant grown from seed went to Mr. Esslemont for a minute but well-flowered specimen of *Androsace imbricata*. The Peel Trophy for three gentians went to Mr. Crosland for an entry which included *Gentiana x caroli*. Since Mrs. Peel left Haddington to live in Norfolk, the county has lost its most enthusiastic grower of gentians; even in a peat bed most autumn gentians are not too happy along this coast with its long spring drought and low humidity. We do not grudge the trophy to members from outside who are able to produce three lovely pans for us to see.

In the class for Geraniaceae and Oxalidaceae the first prize went to the Patagonian *Oxalis laciniata* shown by Mrs. Boyd-Harvey. What a long-flowering plant this is! It appears at Shows at any time between April and September.

The Sedum classes in previous years have always been filled with enormous plants of *Sedum cauticola*, but this year these were left at home, having grown to unliftable proportions. Major-General Murray-Lyon's pan of the exquisite *Sedum caeruleum* created a great deal of interest, and Mrs. Hinton's *Sedum brevifolium* was admired for the symmetry of its square white shoots.

In the class for shrubs a plant of *Crassula sarcocaulis* nearly eighteen inches across was exhibited by Mr. and Mrs. Richard Baillie. There was a time when judges queried the hardiness of this plant, but so many specimens of it have been seen growing in the open that it is now accepted as utterly hardy in the district where this Show is held.

The classes for miniature gardens attracted a very thin entry this year and the Logan-Home Trophy went to Mrs. Boyd-Harvey for a landscape contained in a lightweight concrete trough which she had modelled over perforated zinc. The rawness of the material had mellowed through the years by lichen and moss, and *Saxifraga baldensis* showed its acceptance of the material by creeping up and over the edge. Mr. Jack Burrows' very miniature but well established garden was right out of the ordinary, planted as it was in a crystal ball found in a Derbyshire pot-hole.

Unfortunately the entries in Section II were very sparsely filled and no entrant was eligible for the Bronze Medal. The East Lothian Trophy, however, was awarded to Mrs. H. J. Wright for a good pan of *Semprevivum*.

C.

PENICUIK

THE NINTH Penicuik Show was held as usual in conjunction with the Penicuik Society's Bulb Show in St. Mungo's Hall on 10th March 1962. As is the case each year, we were much indebted to the ladies of the Industrial Committee for the smooth-running arrangements made for the Show, and for the teas which they made available as

they do each year. In spite of what certain Council Members say, this is a much-appreciated feature and one which, it was noticeable, the Leader of the Opposition in this matter fully availed himself.

The winter had been extremely prolonged and hard, and still showed little sign of easing, and it was quite surprising that the entries were only down on the ratio of four to last year's five. Oddly enough, the decrease was almost entirely in the Open Classes, where we missed all the East Lothian exhibitors, though we were delighted to welcome again those hardy enthusiasts Mr. Archibald from Wishaw and Messrs. Crosland and Esslemont from Aberdeen, who brought some superb plants with them.

I suppose that every Show is different, and perhaps particularly a very early one such as this, where the season can have such a marked effect, but the changes between last year's Show and this one were especially marked. This year the Narcissi were good and the classes well-filled as contrasted with last year's dearth, but the crocuses were much weaker and rather erratic. The irises were good, some being really excellent, but the season had beaten the tulips—there was only one pan in the whole Show. The Kabschias were again not up to their best standard; like last year, they had tended to go more to vegetative growth rather than flower, though there were some good pans staged. Hepaticas were extremely good; there was one pan of a most striking double red and Mrs. Neilson had a notable pan of *H. triloba*. To solve the rather awkward question of tuberous or fibrous roots in the undoubted dicots Anemone and Pulsatilla, new classes are being introduced for them alone in future Shows. The classes for Asiatic Primulas were much better filled than they have been for some time, and the standard for these classes was particularly good. Both the major awards went to Primulas, the Forrest Medal to *P. x "Pandora"* exhibited by Mr. Esslemont, and the Midlothian Vase to *P. edgeworthii*, shown by Mrs. Maule in the Restricted Classes (Section II). The Midlothian Bowl was won by Mr. Esslemont with the highest number of points (in either section, but not both), while the runner-up was Mrs. Maule, who was awarded the Seed Voucher donated by Mr. Roberts of Faversham.

The Judges were Miss H. M. Logan Home, Mr. A. Duguid and Mr. J. L. Mowat, and they also judged the Penicuik Society's Bulb Show, where the entries were down a bit but the standard perhaps better than ever.

Our two faithful supporters, the Edrom Nurseries and Ponton's Nurseries, both came with extremely good exhibits and both were awarded Gold Medals. The Edrom exhibit was of plants in pots and Ponton's was a built-up Rock Garden.

There was a good turn-out of both the Public and Members, so much so that it was not until fairly late on that a talk on the plants in the Show could be given, as the hall was too full for a group to be manoeuvred around the benches. This was a part of the Week-end reported below which followed on the Show.

HENRY TOD,
Hon. Show Secretary and C.R. Midlothian.

The Midlothian Week-end

FOR SOME time now the present writer and the Editor have been rather concerned to hear occasional mild complaints that the newer members and the less-experienced rock-gardeners were being somewhat overlooked in the Club's activities. Many of the winter talks and much of the subject matter at the ordinary Club Week-ends was perhaps rather "high-powered" for those who were just beginning rock-gardening. When an Open Letter to the President was received on this subject, it was decided to organise a Week-end Meeting that would be specifically aimed at filling these gaps. This would follow the Penicuik Show, where there were usually a good number of straight-forward and reasonably easily-grown plants on the benches. It was stressed that while there would be little discussed that would be of particular interest to the more experienced Members, all would be welcome.

The original notification of the Week-end was sent to all the Group Conveners (formerly C.Rs) to be read at the first few winter meetings in each section, but this was perhaps a bit too early in the season. The detailed notice was published in the *Year Book*, which was very badly delayed at the Printers and only came out some ten days before the actual date of the meeting. This led to a number of protests that the notice was too short—or perhaps it was both too long *and* too short. At any rate, the meeting was held with thirty-four Members attending, plus the three speakers, which gave a pleasant number for the accommodation at the Suffolk Hall Hotel, where the guests were accommodated and all the meetings held. This was, incidentally, an annexe of the other hotel mentioned in the notice when a larger number had to be allowed for. We are much indebted to the Hotel management for the care they took of us and the smooth running of the week-end's activities, for they had only about thirty-six hours' notice of the final numbers attending.

The Members gathered at the Hotel for dinner after the Penicuik Show, where a talk had been given on the plants in the Show as mentioned above, and then moved into the hall for the first talk, which was given by the writer on "Construction." This talk included an outline of the principles of building a rock garden, with details as to the coring of banks for stability and so on. Then the building of dry walls and the construction of peat walls and beds and of screes and scree-beds was discussed to round off the talk. After an interval for tea or coffee, the three speakers (the writer, Mr. Mowat and Mr. Evans) formed a sort of impromptu Brains Trust and an extremely lively and far-ranging discussion ensued which had to be closed at about 10.30 p.m.

The following morning Mr. Mowat gave a talk illustrated with very good slides on plants for the rock garden and dry walls. He divided his talk into two sections, the first plants for the gardener who wanted to plant up his rock garden and then let it more or less look after itself, apart from routine weeding and secondly reasonably easy plants which would be long-living and give a minimum of trouble,

though perhaps requiring a little more attention than the first group. After a coffee break, again the Brains Trust re-convened and another very lively discussion followed which had to be cut short for lunch.

In the afternoon Mr. Evans gave a talk on plants for the Peat Garden and the Scree which were of equally easy cultivation. He pointed out that the plants that he was dealing with were just those which came into the category of rather difficult in the Rock Garden, and that it was just because they needed either peat-bed conditions or scree conditions that they *were* difficult in the ordinary rock garden. If, however, they were given these slightly more specialised treatments they came into the easy category. His talk was illustrated with excellent slides, and was followed by another very brisk discussion after tea.

After this the meeting was brought to a close and the Members dispersed to their various homes which ranged from Fife to Northumberland and to Renfrewshire in the west.

The writer was quite pleased with the result of this meeting, for it seemed to be on the lines that were wanted, to judge from the members' comments. The idea of having the speakers all available as targets for questions appeared to work well, as the discussion periods were really long and they had, each one, to be cut off before they came to a natural close, which suggested that the plan of a smaller number of talks and much more time for discussion, question and argument was a satisfactory one. Before the close of the meeting the question of date was discussed and the overwhelming vote was for a similar time of year for any future one, and notes were made of one or two more topics which might be dealt with while still in the scope of the "less experienced member."

HENRY TOD

DUMBARTON, GLASGOW and RENFREWSHIRE

THIS YEAR the meetings were held in Miss Rombach's Tea Rooms, 5 Waterloo Street, Glasgow. The new location has proved most comfortable and meetings have been well attended. The programme for Session 1961-62 is almost complete and will be posted to all members in this district in good time for the opening meeting in October. Members from other districts who wish to be included should get in touch with one of our three County Representatives.

An illustrated talk on "Bulbs for Indoor Culture" was well presented by Mr. Alex. Mair, late of Dobbie & Co. Ltd. Although the lecture did not cover the special conditions for dwarf and species bulbs, it gave a valuable outline of the choice and treatment of the more commonly grown bulbs.

"Late- and Early-flowering Plants for the Rock Garden" was discussed by Mrs. J. J. Boyd-Harvey. This was a model in presentation—lucid, detailed, generous in its scope and beautifully illustrated.

In December we were much at home with Mr. and Mrs. Darling as they took us "On Safari from Johannesburg to Cape Town." and we saw those African flowers and gardens through their eyes.

In January Mr. H. H. Davidian delighted us with his talk on "Rhododendrons for the Rock Garden." This was surely one of the best talks he has given, and one we could all enjoy hearing again. Branch Secretaries please note !

In February an attempt was made to bring all members into active participation by a Hat Night. Not altogether a success ! Too many questions were handed in at the last minute and adequate discussion was impossible. Quite unexpectedly and happily Mr. A. L. Macbeth had pictures to show of Rhododendrons in Colonsay, and Mrs. Stark a selection from plants seen in the Rocky Mountains.

Major-General Murray-Lyon's talk on "Flitting a Garden" aroused hearty enthusiasm. This was a happy evening and most helpful. With a breezy modesty the General imparted to us the thrill of his adventure. How infectiously committed he can be !

After that it looked as if Mr. Stewart Mitchell would be hard put to it. But was he ? One enthusiast matched another as the ex-Treasurer followed the ex-President and spoke of "Some interesting Rock Garden Plants." Not only were they interesting, but most beautifully and lovingly photographed. We saw them as they grew with other plants in gardens and, at times also, as they were to be seen at home in their alpine fastnesses.

For the delight they have afforded us we are grateful to our generous lecturers and to Mr. Darling who built this excellent programme. Thanks are due to those members also who have consistently prepared and brought the high quality plants for the Raffle that punctuated each tea-time 'get together.' The economies of the branch have been kept sound by their efforts and many gardens have been enriched.

There were two bus outings this year. On a sparkling, warm afternoon we visited two Dumfriesshire gardens, that of Mr. and Mrs. Duncan Leggat, Glentyan, Kilbarchan, and the garden of Mr. and Mrs. Jack Baird, Inverkip House, Inverkip. Both gardens have delightful settings on sloping sites, the first backed by woodland and the other, a walled garden in part, with a great view over the Clyde estuary to Cowal and Cruachan. They are new as rock gardens, but full of promise and already yielding to plan.

The second outing was to the well established garden of Major-General and Mrs. Murray-Lyon at Pitlochry. Despite the rain that came on towards the close of our visit, this was a most rewarding expedition. It would be futile to attempt description in so short a measure as this and fulsome to praise what is so far beyond the scope and knowledge of most of us. It is the work of one who knows, studies and loves his plants and flowers, a living garden where plants can and do live naturally, full of terraces, drifts, nooks and crannies where the plants are at home and the human species finds rest and pleasure.

We learned many a lesson, and left our host and hostess and the garden with unfeigned regret.

We would express and, if possible, convey to our six generous friends thanks for the pleasure they gave so unstintedly.

W. H. M., C.R.

FIFE—EAST

LAST WINTER'S (1960-61) meetings were all very successful, though attendances were a bit thin during the worst of the wintry weather.

Major-General Murray-Lyon gave an interesting and very helpful talk on "Walls and Screens," and Mr. David Livingstone a finely illustrated talk on "Some Favourite Rock Garden Plants." In January Mr. C. McDermott gave a practical demonstration of the potting-up of plants and their preparation for the Show to a very attentive audience.

In February Mr. Harold Esslemont at very short notice stepped into the breach caused by the illness of Dr. Hamish Robertson and gave a delightfully illustrated description of his "Holiday in the Alps with a Camera," while in March Dr. Robertson, who was recovered, gave a most interesting talk which was rather off the beaten track in "The Coming of our Flowers." The winter ended with the now usual 'Judging Competition' on April, and an extremely successful 'Coffee Evening' organised by the Group's ladies committee in May.

The current season opened with a "Discussion Evening" under the title "How can I get the Best out of my Club Membership?" Many members took part in a keen discussion and several useful suggestions emerged. It was agreed that an endeavour to put these into effect should be made during the year. In December Mr. C. Barnes gave a very useful, and at the same time delightfully entertaining, talk on "Random Reflections on Rockwork—How not to do it," which was followed with very keen interest and pleasure.

Acceding to special requests for guidance in basic principles, Dr. Tod in January gave an extremely worthwhile talk on "The Cultivation of Rock Plants," and answered many questions by recent newcomers to the Club membership. The further winter meetings and the substantial programme of summer visits resulting from the discussion evening will be reported at a later date.

J. L. M., G.C.

FIFE—WEST

On Thursday 19th January Mr. W. McCormac, F.R.Z.S., Dunfermline, who is an Hon. Vice-President of the Dunfermline Photographic Association and also a Councillor of the Dunfermline Naturalist Society, gave us a most delightful and informative talk, with lovely colour slides, on "Some Scottish Wild Flowers." His close-ups of some of the minute flowers were a real delight.

On Thursday 16th February, owing to the indisposition of Dr. Henry Tod, we were most grateful to Mr. C. G. Halley, St. Andrews, who kindly came through to give us a talk with colour slides of his garden and plants. He showed us wonderful pictures of his heaths and conifers in particular. It was an excellent lesson of what can be done in a small garden to give the impression of vast distances and design.

On Thursday 16th March we were so pleased to welcome again Mr. James Aitken, Perth, who showed us slides of a visit to the Dolomites. His slides, as always, were of such an artistic quality and it was a joy to see so many of the familiar plants growing in their natural habitat.

On Thursday 13th April Dr. D. M. Morison, M.D., F.R.C.S., Edinburgh, gave us an extremely interesting lecture with colour slides of "Plant Hunting in the Assynt Area." His knowledge of the geology of the district gave an additional interest to his talk, to which we listened with the keenest enjoyment.

E. D. W. *Assistant C.R.*

PERTHSHIRE—NORTH

THREE MEETINGS were held in Fisher's Hotel, Pitlochry; the number attending, even in wintry conditions, was very satisfactory. I take this opportunity to thank once again the Club members who have helped in many ways to the success of these meetings, also to our speakers who travelled many miles to come to us.

November 1960 : Mr. J. C. Lawson, Inshriach Alpine Plant Nursery, Aviemore, showed us colour slides taken at Inshriach; he also gave us cultural details of many of these plants shown.

February 1961 : Members' Night—Members showed colour slides taken in their gardens last summer. We were glad to have another recruit among us who has become interested in colour photography.

March 1961 : Stewart Mitchell, Esq., Dundee, took us for a "Plant Hunting Holiday in Switzerland," illustrated with colour slides.

Garden Outing.—Major and Mrs. Sherriff, Ascreavie, kindly invited us to visit their garden in June. We had a wonderful afternoon; the garden was full of colour with rhododendrons, azaleas, primulas and meconopsis. As one wandered through the woodland paths, each turn brought some rarity to our eyes. To name only a few: *Ranunculus lyallii*, with several glistening white flowers, *Primula kingii* and *P. dickiana*, *nomocharis* and lilies too numerous to name. Mrs. Sherriff's very generous hospitality made a most delightful finish to this visit.

STIRLINGSHIRE

WE HELD our usual four meetings during the 1960-61 session, but began this year with a meeting in Falkirk, when Mr. J. G. Collee, "Blenheim," Bo'ness, gave us an informal and most enjoyable talk

on "Bulbs in the Rock Garden." The talk was illustrated by slides of the Dutch bulb fields and of Mr. Collee's garden, and was followed by a lively and far-ranging discussion.

Our first Stirling meeting of the season was held in November, when Mr. J. A. Stainton, The Gart, Callander, gave us another of his admirable talks on foreign flora, taking us this time to the Black Sea coastal strip and the plateau of Anatolia. Mr. Stainton said that the Turkish flora did not provide so spectacular a range as the flora of Chitral, the region described in his previous talk to us. Nevertheless, there were some delightful and delicate individual plants shown on the screen (I remember particularly a dark fritillary high up in a snow patch), as well as some breath-taking colour groups such as a field blazing with scyllas.

In March we met in Falkirk for a Members' Colour Transparency Night, a very successful second venture in this line. Mr. Cyril Godfrey, Stenhousemuir, showed and commented most interestingly on a number of very attractive slides of native flora taken in Scotland, Norway and Austria. By way of contrast, Mr. W. Hamp-Hamilton, Sheriffmuir, exhibited some fine slides of the rarer plants cultivated in such gardens as Keillour and Ardcuil, while Mr. Hugh Gavin, Stirling, contributed some delightful shots of the Lake District in autumn colour.

At our second meeting, held in Stirling in May, Mrs. David Tweedie came to talk to us on "Patagonian Plants," enhancing her vivid verbal presentation of the subject by colourful slides of these interesting and lovely plants. The blue oxalis and a scarlet-flowered embotrium were particularly attractive.

Our garden visit this year was made to "Blenheim," Bo'ness, at the kind invitation of Mr. and Mrs. Collee. This very delightful garden faces north to the Firth of Forth and is steeply sloped up in terraces. These, each with its central focal point—a rock hollow, a waterlily pond, a paved circle with rustic seat—provide many unusual and attractive plants which bear testimony to Mr. Collee's care and patience. This was an enjoyable and rewarding evening and we are most grateful to Mr. Collee for his genial welcome and for his generous sharing of his gardening skills.

The first meeting of the new session will be on 26th October 1961, at 7.30 p.m. in the Golden Lion Hotel, Stirling, when Mrs. Boyd-Harvey will lecture on "Autumn Stock-taking."

Miss J. McEwan

NORTH NORTHUMBERLAND

ON Friday 17th March Mr. Alfred Evans of the Royal Botanic Garden, Edinburgh, gave a most interesting lecture on "Meconopsis." This was illustrated with wonderful slides.

As a large number of the members were attending the Conference, it was decided that no garden meeting would be held in April. Three garden meetings were held and all were favoured with very excellent weather.

On Wednesday 24th May forty members visited the garden of Lord and Lady Joicey at Etal Manor, and the garden of Lady Aitchison at Coupland Castle. Lady Joicey, who is one of our members, first conducted the party over her most interesting and beautifully kept rock garden. To the ardent alpine gardener, not the least interesting was the fine display of dwarf conifers now reaching maturity, and the fine large rocks of which it is composed. The woodland garden was just at its best and the massed colour of the hybrid rhododendrons and azaleas was a wonderful sight. *Meconopsis*, primulas and lilies were among the other fine plants seen.

Coupland Castle garden contains a most interesting collection of shrubs planted by the late Sir Walter Aitchison. The members lingered a long time here, finding many unexpected and rarely seen plants.

On Tuesday 6th June more than thirty-five members visited the gardens of members of our Committee—Mrs. J. Dodds, South Hazelrigg, Chatton, and Miss A. L. Hale, Brunton House, Embleton.

The members greatly admired Mrs. Dodds' charming rock garden and scree, which was all her own work, and they also enjoyed the splendid view from the lawn.

Miss Hale's garden had unexpected corners containing many fine plants and she had planted many fine trees. As she had only been in residence for a few years, the very excellent results she had achieved in such a short time showed the amount of thought and work she must have put in. The herbaceous border in the walled garden was also a source of interest, not least a very fine dwarf herbaceous clematis which no one could name.

On Tuesday 27th June almost forty members visited our members' gardens at Embleton Hall, Longframlington, the home of Mr. and Mrs. J. C. Church, and Miss M. Forster's garden at Burradon, Thropton.

Mrs. Church's charming rock garden, filled with interesting plants, always delights the members, and much to please was also found in the herbaceous border; the Scottish Thistle, *Cirsium*, an unusual thalictrum and Sutton's Excelsior Hybrid Foxgloves.

Miss Forster had made a most unusual garden of old roses in a shady and sheltered bank. Plants noted were the musk rose "Cornelia" and the Norwegian maple, *Acer drummondii*. It was astonishing to be informed that this garden was only planted two years ago. Miss Forster also very kindly gave a show of the beautiful coloured slides she takes in other gardens, notably at Kowick Hall.

DOROTHY C. PAPE, C.R.

Discussion Week-end Kilmacolm

7th and 8th OCTOBER 1961

THE GLASGOW GROUP is to be congratulated on the successful outcome of its first venture in organising a Discussion Week-end : it should be recorded that a record number of residents (91) were present and were all housed under the same roof, thanks to the capacity of the Kilmacolm Hydro. All arrangements for the comfort of members were foreseen and provided for by Mr. Alex. Todd, the Convener, his admirable aide, Miss Janet Woodrow, and team of self-effacing helpers whose only fault was their anonymity. As is by now customary, the Sunday morning was spent in seeing some local gardens : in the event the weather proved inclement and though most members saw things to interest them outside it was doubly pleasureable to accept an invitation to take shelter and refreshment.

The first official session—many members had arrived on the Friday evening and some ‘unofficial’ sessions had lasted into the early hours of Saturday—was devoted to a paper on “Plant Introductions of the Century” given by Mr. W. G. Mackenzie of the Chelsea Physic Garden.

Mr. Mackenzie drew attention to the almost incredible number of plants which had been introduced or re-introduced into this country in the last sixty years from virtually all parts of the globe. Many had not proved amenable to cultivation, others were lost from other causes, and some were not worth growing, at least from a horticulturalist’s point of view. Nonetheless, an enormous number still remained and in order to keep his talk within measureable bounds Mr. Mackenzie proposed to exclude all plants from mainland Asia, which had been fully dealt with on previous occasions. Even so, the number of plants within the ambit was enormous and he had been compelled to select what in his personal view was the cream of all the introductions. Mr. Mackenzie dealt with his choices in a geographical sequence, commencing with North America.

NORTH AMERICA

This continent is rich in dwarf Aquilegias which hail particularly from Colorado and the Rocky Mountains. *Aa. scopulorum*, *laramiensis*, *saximontana* and *jonesii* were all recommended particularly for growing in pans. *Boykinia jamesii*, also from the Rockies, was not too easy, as if given too fat a diet it tended to make vegetative growth at the expense of flower. Erythromium, the Dog-tooth Violets, were all good and fairly easy ; *E. tuolumnense* and its hybrids and the gem *E. montanum* (which is difficult) were all worthy of trial. From Oregon in 1936 came *Iris innominata*, one of the finest dwarfs, and one which propagates readily from seed : it is also a fruitful parent of hybrids

with *Ii. tenax* and *douglasiana*, this widening the range of available colours. The Lewisias have since their introduction brightened many a garden : *Ll. heckneri* and *brachycalyx* were singled out for mention, as also was the hybrid strain raised by Mr. Weeks. Penstemon is a large genus of small shrubs and sub-shrubs which are still being introduced : *Pp. newberry* and *pinifolius* are already familiar ; a newer one, *P. davidsonii*, close growing, dwarf, with crimson flowers, was likely to become as popular, though not likely to be too easy in Edinburgh. Many Phlox had been introduced, notably *Ph. adsurgens*, with large apple-pink blossoms and a yellow primula eye. This is a stoloniferous plant and it was best to allow it to find its own position. *Ph. bryoides* and *caespitosa*, much smaller plants but equally desirable, were ideal for the scree. Another largish genus, the Polemoniums, merited attention : among the dwarfs were *viscosum*, *confertum*, *mellitum* and *pulchellum* : though not long-lived they were easy from seed and an annual raising was advised in order to provide this wealth of bloom.

SOUTH AMERICA

From Patagonia has come the quaintest of all alpines, *Calceolaria darwinii* ; it is not too easy but a later introduction and near relation, *C. colvillei*, is both hardier and easier. *Oxalis adenophylla* has been known for some time but the most recently introduced species is *O. laciniata*, for which we can thank our own member Mrs. Tweedie ; two yellow-flowered ones, *Oo. chrysantha* and *lobata*, are worth trying, though they are none too hardy. A blue colour quite unlike any other is to be found in *Tecophilea cyanocrocus*. This bulbous plant, though not common in cultivation, has become even rarer in its native habitat and recently a celebrated English gardener made a unique and delightful gesture in sending some of his spare bulbs to replenish the native habitat. *Weldenia candida*, a pure white spider-wort, has the disconcerting habit of disappearing entirely for long stretches of the year ; the original introduction from Mexico is a poor form ; the later one from Guatemala much better.

NORTH AFRICA

In spite of its climate the north coast of Africa, particularly the Atlas district, produces a large number of plants which have proved hardy in Britain. Two composites with ferny foliage, *Anacyclus depressus* and *A. mauritanicus*, have proved happy here, given all the sun to be had. *Leucanthemum catananche* does likewise. From this area came also the delightful dwarf narcissi, *Nn. cantabricus*, *citrinus*, *bulbocodium*, *watieri*, and *marvieri* ; though apparently hardy, their early flowering period necessitates some protection from Spring rains. A magnificent buttercup, with white or in good forms a good pink flower, is *Ranunculus calandrinoides*.

SOUTH AFRICA

In view of Mr. and Mrs. Darling's talk, Mr. Mackenzie contented himself with but one species from this sub-continent—*Rhodohypoxis baurii*, introduced by that intrepid lady Mrs. Garnet-Botfield. This plant has given rise to many excellent colour forms, many of them named, including a white one known as *Rh. platypetala*.

JAPAN AND KOREA

An exception to the exclusion of all Asiatic plants must be made in the case of plants from Japan and Korea, as these had not had the attention that they merited. *Cassiope lycopodioides*, with lily of the valley bells of the purest white, is a must for the peat garden, though its form called *major* is a disappointment. For a similar situation *Phyllodoce nipponica* is also an excellent plant. The Pleiones have recently become popular on the show bench where they are excellent : *Pl. formosana*, which now includes *Pl. pricei*, is a rather variable species. A lily 6 to 8 ins. high worthy of note is *Lilium formosanum pricei*. The Schizocodons and their relations the Shortias are all first rate. From Korea, dwarf lilac, *Syringa palabiniiana*, was introduced in 1930 : it has a delightful scent and bears its blooms at a very early age ; eventually it may reach in course of many years 8 to 10 feet in height. Other desirable Japanese plants mentioned, most of them suitable for woodland or peat gardens, were *Glaucidium palmatum*, a choice yellow poppy, *Ramzania japonica*, *Astilbe simplicifolia*, first imported as packing material for something else, *Arcterica nana*, *Orphanidesia gautherioides* and *Epigaea asiatica*.

NEW ZEALAND

The colour spectrum of flowers from New Zealand was interesting inasmuch as there was a great predominance of white. All the illustrations had been taken in nature and as a warning the first slide showed fields of *Acaena*, the New Zealand Burr—not—at least in most of its forms—a plant to be given its head in the garden. The *Celmisias* are a confused group taxonomically : some held that they were not suitable for the rock garden, but Mr. Mackenzie did not agree and maintained that *Cc. coriacea argentea*, and the dark green foliaged *bellidifolia* were eminently adapted for the rock garden. Cushion plants requiring careful cultivation and forbearance with the watering can were *Raoulia eximea* and *Haastia pulvinervis*, both of which have been in and out of cultivation. *Helichrysum coralloides*, *Ourisia microphylla* and *Raoulia lutescens* and *bryoides* were also mentioned.

MIDDLE EAST AND EUROPE

The true *Anchusa caespitosa* has frequently been in and out of cultivation : it is now fortunately in and proves itself very distinct with its little borage flowers nestling among the leaves. *Crepis incana*

from Greece, with pink dandelion flowers and grey foliage, has proved a popular and easy introduction. *Crocus speciosus* was taken as typical of many new introductions of Crocus, including *ancyrensis*, *balansae* and *sieberi*. New finds of cyclamen include *pseudibericum*, *cilicum* and *graecum*. For those who liked to try the near-uncultivable, *Dionysia curviflora* had now been precariously introduced. In contrast *Genista lydia* was easy to do and so rewarding with its profuse masses of deep rich golden-yellow flowers. The genus *Iris* had produced a number of good new colour forms, particularly *I. reticulata*, though it was doubtful whether *Iris histrio major* was any improvement on the type. Tulips, *forsteri* and *kaufmanniana*, for instance, excellent though they are, are not perhaps suited for the rock garden where their flamboyance tends to detract from the most sedate beauties. A good yellow *Viola* is *V. saxatilis aetolica*. Of the Campanulas, *betulaefolia* with white or pink flowers and *arvatica* from Spain were among those singled out, as was *Dianthus callizonus*, the neatest and most perfectly marked of all *Dianthus*. One of the most highly regarded new plants was *Geranium dalmaticum*, found in the 1930s by the late Walter Ingwersen. Two *Ranunculus*, *nathaliae* and *reginae-amaliae*, are worthy of a place and what more delightful a willow is there than *Salix apoda* male form.

GARDEN HYBRIDS

Having toured the world in search of plants, Mr. Mackenzie made fleeting mention of the host of hybrids and cultivar forms which had arisen in the last sixty years. A few taken at random must exemplify the many other worthy ones. *Daboecia azorica* x *cantabrica*, *Daphne* "Somerset," the many forms of *Galanthus*, *Geranium subcaulescens splendens*, dwarf *Narcissi* like "Piccaninny," *Primula* "Marven," *Pulsatilla* "Budapest."

But what of the future, asked Mr. Mackenzie : many of the customary hunting grounds are now due to political troubles closed, but many more remain, some virtually untouched : indeed, the experience of the last few years shows that there is still every chance of finding new and desirable things even in Europe. It was this great influx of new plants, probably as much as anything, that gave impetus to the formation of specialist societies such as the Alpine Garden Society and the Scottish Rock Garden Club. There was no fear of them being short of new plants to interest, amuse and tantalise them for many a year : even so, these Societies and the Botanic Gardens had a duty to perform in ensuring that as far as possible new plants remained in cultivation. To this end Mr. Mackenzie made a plea that new plants should be dispersed as widely as possible as an insurance against loss, on the principle that a plant given away is one stored for a rainy day.

The second session comprised a showing of a coloured moving film record of the garden at Branklyn, Perth, given by Mr. and Mrs. J. T. Renton. Mr. Renton explained that the garden which extended to about two acres faced south but sloped from west to east : the altitude is not greatly above sea level and the annual rainfall never more than 31 inches. When first taken over many years ago the garden comprised a rather messy orchard and a potato patch. Though their gardening was traditional at first, inspiration soon came from reading Farrer, vols. 1 and 2, and from seeing other people's gardens : perhaps the critical point came when Mr. Renton took a small share in one of George Forrest's expeditions and was rewarded with 600 packets of seed. From this arose the nucleus of the present garden, for it contained primulas, shrubs and two Rhododendrons, *fictolacteum* and *rex*, which today grace the garden. This was but a start, for in the intervening 35 years seeds from all the celebrated collectings gave reached Branklyn and have prospered or not as the case may be. There are to be seen plants raised from seeds collected by Kingdon Ward, J. Rock, Stainton Sykes and Williams, Colonel Lowndes, Dr. Worth and many others.

The garden is devoted mainly to rock plants, shrubs, and ericaceous plants, though herbaceous plants have their place and many specimen trees are used not only for their ornamental value but for the shade and shelter they provide. Near the house is a collection of stone troughs in which the smaller and more choice rock garden plants are grown. Grass paths are the rule except in the rock garden, where gravel is so obviously more appropriate. Shrubs and trees are used as a background to the more lowly-growing plants and as a means of dividing the garden into a series of glades so disposed that the garden gives an illusion of far greater size than its two acres. Because of the lie of the land borders tend to slip down upon the paths and therefore the edges have been revetted with blocks of peat to retard this erosion. In these blocks ericaceous plants and meconopses thrive mightily.

Mention may be made of a few only of the plants which were illustrated : *Ranunculus x ahrendsii*, a cross between *Rr. amplexicaulis* and *gramineus*, a specimen of *Primula* "Linda Pope" 30 years old, a specimen of *Cassiope lycopodioides* raised in 1937 and still flourishing. *Meconopsis grandis* in the form known as Sheriff 600 proved again to be one of the most magnificent of all meconopses. Among the more unusual plants to be seen were *Lilium oxypetalum insigne*, collected by the celebrated climber G. S. Smythe, and *Gentiana sino-ornata alba*, raised from seed collected by Kingdon Ward ; unfortunately only one of the batch proved to be white when they first flowered in 1939. But undoubtedly the dominant impression left by the film was the glory of the collection of meconopses raised from the Stainton Sykes and Williams collection in Nepal ; wonderful rosettes in varying hues of gold and silver and enormous development at flowering age up to 8 feet or so in many cases and flowers of many delightful shades of yellow, pink and red.

Saturday evening was devoted to a Brains Trust, the members of which were Miss King and Drs. Dean, Davidson and Tod : Major-General Murray-Lyon was in the chair. It is neither possible nor perhaps desirable to record fully the very great number of questions answered by the Panel : the following brief summary of certain questions may, however, be of interest generally. If *Oxalis laciniata* shows a tendency to expose its rhizome at the end of the season the proper treatment is to give it a top-dressing of gravel. Suitable nourishment for ericaceous plants may be found in peat and leaf-mould, bonemeal (only with an acid soil), hoof and horn, sulphate of potash, coffee grounds and draff from a distillery. Liverwort may be controlled by grit, sand, or fine coal (without dust) on top of the pan ; watering should also be controlled. The spring heaths can be better for a light pruning once in two years : heathers can be pruned sparsely annually with the object of producing long sprays : in neither case should old wood be cut into and in any case the attractiveness of the dead flower spikes is possibly sufficient to justify a policy of no pruning whatsoever.

Professor G. Pontecorvo gave a lecture, illustrated wholly by pictures taken in the wild, entitled "Rock Plant Endemisms." It is a commonplace, the Professor said, that all plants do not grow in the same place : some, like *Saxifraga oppositifolia*, can be found virtually circling the northern hemisphere, where conditions allow, and others are restricted to perhaps one valley : between these extremes lay many intermediates, for example certain disjunct species which, whilst appearing in widely dispersed colonies over a great range, have large gaps in their distribution. There was another phenomenon worthy of note, that of vicarious species, whereby two closely allied species covered much the same general range, but one appeared only on calcareous soils and the other on acid. The species exemplifying this phenomenon, which were illustrated, may be tabulated as follows :—

| Basic Soil | Acid Soil |
|-------------------------------|-----------------------|
| <i>Anemone alpina</i> | <i>A. sulfurea</i> |
| <i>Thlaspi rotundifolia</i> | <i>Th. corymbosum</i> |
| <i>Soldanella pusilla</i> | <i>S. alpina</i> |
| <i>Doronicum grandiflorum</i> | <i>D. clusii</i> |
| <i>Achillea moschata</i> | <i>A. atrata</i> |
| <i>Androsace helvetica</i> | <i>A. alpina</i> |

All these plants have a wide range.

Reverting to his main topic Professor Pontecorvo illustrated a number of plants with an extremely wide range : *Lloydia serotina*, which inhabited cold, windy, dry mountains in the Arctic from Japan to the Rocky Mountains, and *Anemone narcissiflora* from similar habitats, though insisting on a neutral soil, was therefore more fussy ; the Rocky Mountain form, though different in aspect, was still the same species. *Bupleurum ranunculoides* had almost an equally wide distribution, but was not common, *Silene acaulis* a variable and wide-spread species appeared on basic soils in the Alps in its *longiscapa*

form and on acid soils as *exscapa*, but this was not general, for in Scotland, for instance, both grew on acid soils. Another Scottish native, *Lychnis alpina*, was also to be found widely, as was *Saussurea alpina*, though this latter was not common. Two orchids with a wide territory were also mentioned : *Coeloglossum viride* and *Chamaeorchis alpina*, the latter appearing almost always with *Dryas octopetala* and *Parnassia palustris*.

To exemplify those plants of a less wide distribution Professor Pontecorvo illustrated the following which cover the range from the Pyrenees to the Balkans : *Ranunculus alpestris* which appears in two forms, one dwarf with smaller flowers, both of which may be found growing together ; *Globularia cordifolia*, which flowers only when baked in the sun, and *Petrocallis pyrenaica*, a high alpine, which grows only on limestone. On the contrary *Trifolium alpinum*, which has a Rocky Mountain counterpart in *Tr. dasystemon*, grows only in acid conditions. An unusual plant, *Campanula thyrsoides*, the only yellow campanula, is choosy as to conditions but can be found throughout this range, as can another polymorphic species *Linaria alpina*, in its bicolor and concolor forms. *Tulipa sylvestris*, shown growing at Col Maddalena, is even more wide in its distribution, as it has colonised in Southern England. A similar limitation is observed by *Cypripedium calceolus*, though a very similar species is to be found in N. America. As a final exemplar of this type of distribution a slide was shown of *Epipactis atrorubens*, an orchid which appears here and there from the Alps to Western Asia.

The so-called disjunct species pose a special problem in reporting, as by definition they conform to no predetermined pattern. For instance, *Bulbocodium vernum* appears in the Western Alps, the Pyrenees, the Caspian and the Caucasus, but is inexplicably absent from the Eastern Alps. Similarly disjunct but from the Pyrenees only are *Ranunculus pyrenaicus*, often regarded as rare but only because of its early-flowering habit, which it shares with *Crocus albiflorus*, and also *Sedum anacampseros* and *Phyteuma hemisphericum*.

A number of plants are found only in the European Alps, though possibly some of them extend into the Appenines also : of these the following are typical ; *Orchis sambucina*, which appeared in both yellow and red forma on the one picture, *Aquilegia alpina*, *Epilobium fleischeri*, to be found on river beds and moraines, *Gentianas bavarica* and *brachyphylla* and *G. imbricata*, the high alpine form of *G. bavarica*.

Of still more restricted range are *Pinus mughus*, a prostrate creeping pine from the Carpathians, *Primula minima*, *Rhodothamnus chamaecistus* and *Campanula alpina* from the Eastern Alps, and from the Western Alps *Dianthus neglectus*, *Violas calcarata* and *cenisia*, *Saxifraga biflora*, a very variable plant in the colour of its flowers, but always growing on moving scree, and *Campanula cenisia*. More plants from the Western Alps illustrated were *Saxifraga cotyledon* on damp rock faces, *Allium narcissiflorum*, *Senecios incanus* and *uniflorum*, which rarely appear

together but hybridise at Zermatt, *Androsace imbricata* and *Campanula allionii*.

As examples of plants with a very restricted area of distribution there were illustrated *Sempervivum grandiflorum* from Arolla, where it replaces *S. montanum*, *Saponaria lutea*, a very rare compact plant with yellow flowers, *Campanula excisa* from Macugnaga, with its strangely cut flowers, *Astragalus onobrychis* and *Anemone halleri* from the Gran Paradiso range, where it replaces *A. alpina*. Finally, Professor Pontecorvo illustrated three absolute rarities : *Aethionema tomasiniana*, with Sedum-like foliage, *Dianthus carthusianorum* from Galibier, and *Astragalus alopecuroides* v. *alopecurus*.

The final talk of the Week-end, given by Mr. and Mrs. Edward Darling, entitled "A Floral Safari to South Africa," described a leisurely sight-seeing holiday through the French Riviera, Egypt and so to South Africa. Mr. Darling, jun., who is now domiciled in South Africa, had built himself a small rock garden which he was proposing to extend ; may this portend a kindling of interest in rock gardening throughout the whole sub-continent. Many pictures were shown of the flora of the Veldt, bulbous plants, orchids, ericas and succulents, most of which, if not all, were unfamiliar to the audience. It is to be feared that most of these plants would fail to appreciate the Scottish or even English climate and are not therefore likely to adorn our rock gardens : nevertheless, Mr. and Mrs. Darling, no doubt with the introduction of *Rhodohypoxis baurei* in mind, brought back with them some 100 packets of seed which they have kindly distributed far and wide. Perhaps we will shortly be hearing what success has been achieved in cultivating these introductions.

W. H. McG. and F. C. B.

Book Review

"COLLINS GUIDE TO BULBS," by Patrick M. Syngé. Pp. 320, with 330 bulbs illustrated in colour and 27 in black and white. Collins, 30/-

When one considers the great flood of third rate, or often fifth rate, books on all sorts of subjects which appear in a constant stream now-a-days, it is indeed a most refreshing experience to come across a book of such an outstandingly high standard as "Collins Guide to Bulbs," written by Patrick M. Syngé. It is an extremely worthy addition to the two previous books in the Collins Garden Guide series—'Guide to Roses' and 'Guide to Border Plants,' embracing as it does the whole range of bulbs and plants of a kindred nature (corms, tubers, and rhizomes) literally from A to Z—from *Achimenes* to *Zephyranthes*.

The introductory section before the actual list of genera and species gives in a very condensed form all the necessary information for their successful cultivation under various conditions and also sections on propagation, collecting, structure and anatomy, pests and diseases. Particularly interesting and useful is the section on the bulb frame, while that on pests

and diseases is a mine of extremely helpful information. For those who travel and may want to collect from the wild the section on this subject on p. 34 gives some very sound advice.

Coming to the list of bulbs, etc., described the information is so complete and so sound that it is difficult to pick out any one item in preference to another, but the descriptions of certain genera appealed to me personally; for other people the chief appeal may probably lie in other genera. For me the allium, crocus, cyclamen, erythronium, fritillaria and iris sections had a particular interest. The sections dealing with liliium, narcissus, scilla and tulipa are also very comprehensive. When on p. 96 speaking of his division of crocus spp. according to their sequence of flowering Mr. Synge remarks that—"The division . . . will not always be maintained in the garden"—I fully agree, because when over several years I kept a record of the sequence of flowering I found that many varied somewhat in their order from year to year. Again, while it is suggested that *Crocus korolkowi* would be best in the alpine house, we have had two groups of it untouched outside here in East Fife for thirty years, and though they have not increased to any great extent, they are still as strong as when first planted.

On p. 315 a very helpful bibliography tells enquirers where to find further information on various groups dealt with throughout the book, which ends with a glossary which explains the technical terms used.

One can only say that, with perhaps two exceptions—plates 10 and 18—all the illustrations, whether coloured or half-tone, are really excellent. We are given reproductions in colour of 52 species and sub-species of crocus, 18 of Cyclamen, 19 of Fritillaria, 23 of Galanthus, and so on to an amazing extent. The printing and reproduction is of that high standard we know to expect from Messrs. Collins; in the whole 320 pp. I noted only three errors: 'place' instead of 'plate' on line 7 of p. 44, 'this' instead of 'the' on l. 26, and on p. 93, l. 25, there seems to be a mistake in plate number.

Many books on gardening subjects have been, and are being, published, not all of them at all worth the price, often high, asked, but this is a book that must impress the knowledgeable as extremely good value.

J. L. MOWAT

Index to Advertisers

| | PAGE |
|---------------------------------------|--------------------|
| AITKEN, J. R., Nurseryman, Perth | 76 |
| ALPINE GARDEN SOCIETY | 70 |
| AMERICAN PRIMROSE SOCIETY | 29 |
| AMERICAN ROCK GARDEN SOCIETY | 81 |
| ARCHIBALD, JAMES L. & SON, LTD. | 72 |
| BAILLIE, RICHARD & SONS, LTD. | 76 |
| BLOM, WALTER & SON, LTD. | 87 |
| BOOTHMAN, STUART, Maidenhead | 77 |
| COCHRAN'S OF PAISLEY | 59 |
| CORREVEON, M., Seedsmen, Switzerland | 82 |
| COUNTRY LIFE & COLLINGRIDGE | 80 |
| DAVENPORT JONES, Miss H., Hawkhurst | 82 |
| DRAKE, JACK, Aviemore | 72 |
| DRUMMOND & SONS, LTD., W., Stirling | 85 |
| EDROM NURSERIES, Coldingham | 71 |
| ELLIOT, JOE, Moreton-on-Marsh | 78 |
| ERNA LOW TRAVEL SERVICE | 84 |
| FALCONER & Co., LTD., Glasgow | 78 |
| FINAVON ESTATE OFFICE, Forfar | 76 |
| FORBES, JOHN (HAWICK) LTD. | 86 |
| FOYLE, LTD., W. & G., Publishers | 83 |
| GARDENERS CHRONICLE | 85 |
| GOODWIN, ARTHUR R., Bewdley | 86 |
| GRANT OF WEST CALDER | 74 |
| HAYES, Ltd., GEOFFREY, Grasmere | 80 |
| JACKMAN & SON (WOKING NURSERIES) LTD. | Back Cover outside |
| DE JAGER & SON (LONDON) LTD. | 84 |
| KAY, LTD., REGINALD, Carnforth | 69 |
| KING & PATON, Dalbeattie | 75 |
| KNOCKDOLIAN NURSERIES, Girvan | 71 |
| LANDSMAN'S POSTAL BOOKSHOP | 81 |
| LAURIES OF DUNDEE | 86 |
| LOCH LEVEN HOTEL, Onich | 74 |
| McMURTRIE, Mrs., Kintore | 84 |
| MARYFIELD NURSERIES, Leslie | 77 |
| MURPHY CHEMICAL COMPANY, LTD. | 79 |
| NATIONAL AURICULA & PRIMULA SOCIETY | 85 |
| PONTON, J. R., Kirknewton | 73 |
| POPULAR GARDENING | 82 |
| POWER GARDEN PRODUCTS | 80 |
| SANDEMAN SCOTCH | 81 |
| SMALL ADVERTISEMENTS | 68 |
| SMITH, JOHN, Bookseller, Glasgow | 78 |
| S.R.G.C. TREASURER | 68 |
| STEELE, JAMES H., LTD., Edinburgh | 70 |
| STITT, Lt.-Colonel J. H., Blairgowrie | 73 |
| THOMSON, LTD., JAMES, Edinburgh | 75 |
| WATERFERRY HORTICULTURAL SCHOOL | 77 |

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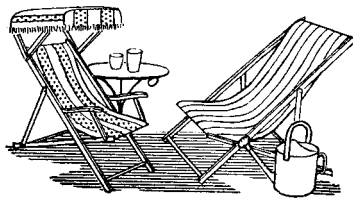
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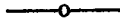
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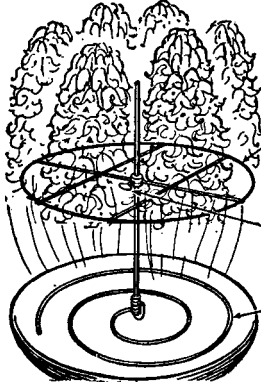
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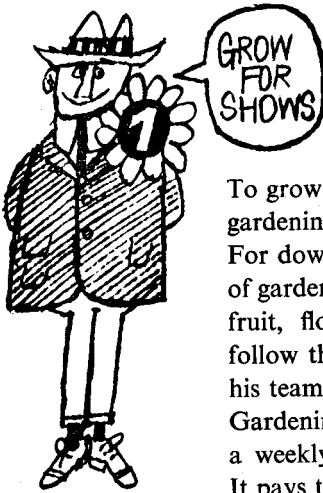
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