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QUARTERLY

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Frank H. Michaud - Bamford Award Winner

DORETTA KLABER, Quakertown, Pa.

Again, judging for the Bamford Trophy was much simpler and easier than I anticipated. Not only did Mr. Michaud of the Alpenglow Gardens, New Westminster, Canada, receive a substantial majority of the votes, but the reasons given for nominating him were most convincing. I quote excerpts from a few of the letters which came from the United States as well as Canada: "He had the courage to import plants from England before they were popular in America." "I am familiar with his contribution to and his development of the Auricula. Pages of letter would not do justice to his work." "He is a keen grower and you could not possibly find anyone more deserving of the award." "He has greatly assisted in the encouraging of growers in the U.S.A., particularly in Washington and Oregon, not only with advice but also plants grown and hybridized." "Mr. Michaud has done so much in the stimulating of interest in growing the Show and Alpine Auricula by bringing to America a very choice collection of Auriculas from England, named varieties with qualities, to show the American enthusiasts what one must strive for in preserving seedlings to grow on. He has grown these beautiful imported clones to perfection, and so has made them available to the enthusiasts of this country." The donor of the trophy, Mr. Dan Bamford, well known as one of the last of the old Lancashire Florists, writes:

Sam very pleased to hear that dear Frank has won the trophy. When he holds out his hand to receive it he must imagine that at long last, he is shaking hands with his old fremd Dan, because Thow also handled it.

It gives me great pleasure to announce the winner of the Bamford Trophy for 1955 to be Mr. Frank H. Michaud of New Westminster, Canada.

I am also happy to announce the runner-up for this year. Mrs. B. E. Torpen of Beaverton, Oregon, who was nominated for her contribution in the growing and hybridizing of the Auricula and for education and help to amateur growers. She was honored last year in England by being asked to judge at a London Show. (Illustrations on pages 93 and 95.

Cooperative Supplement to the Pictorial Dictionary of the Cultivated Species of the Genus Primula

P. acaulis=vulgaris

P. Allionii, one of the more miniature Auricula species, is grown out of doors by those who have overhanging rocks and infinite patience. (Pictured page 5 of the January '54 Quarterly). "In pots, I have always found it quite amenable and good tempered. It is very small-growing, making wee little cushions of its downy rosettes. flat upon which lie, in their season, the abundant big rosy flowers, large as a shilling, with a white eye. It is a wonderfully beautiful little plant, and worthy any amount of trouble, but luckily, it has a twin brother, so like as to be almost indistinguishable, called tyrolensis, which is as cheerful to deal with as Allionii is captious. (Reginald Farrer: My Rock Garden).

P. americana Rydberg=incana

P. amoena, of the Vernales Section, is pictured on page 5 of the January '54 Quarterly." The leaves are dark green and leathery, very distinctly veined, or reticulated, and the handsome purple blue flowers are borne in a rather one-sided umbel on a stout scape, rising some six to twelve inches above the leaves. Many frauds have masqueraded under the name amoena—usually an unusual Polyanthus. Propagation is slow, depending entirely upon division and, unless richly fed, the crowns are slow to multiply, and if given too strong a diet, the whole plant is liable to collapse during the winter months." (W. E. Inguersen, Birch Farm Nursery, Gravetye, E. Grimstead, Sussex, England.) Mr. Ingwersen found the "Purple Oxlip of the Caucasus" while camping near the permanent snow line of Mt. Elbrus. Although it was introduced to English gardens in 1831 it has become very rare as it is difficult to raise from seed. Seed distributed as amoena by one of the British exchanges was a total disappointment. Mrs. A. C. U. Berry's plants are slow to divide and seldom set seed but seem perfectly hardy.

P. anisodora is an evergreen Candelabra which was named appropriately because it has an aromatic odor of anise seed. The purple-black funnel-shaped flowers appear in whorls on the stem in June and July. (Mande Hannon, Portland, Oregon)

P. aurantiaca: Because this species is deciduous and completely disappears during the period of dormancy it is best to mark the area in which it is planted. This rather dwarf plant can be used to advantage to border beds of the taller Candelabra as it flowers from May to June. (Maude Hannon, Portland, Oregon)

P. aureata: 'The good form of aureata is orange and incredibly lovely. There is a cream form of it which is charming but the real plant is a gem." (Dan Bamford, Middleton, England) Mrs. A. C. U. Berry has grown the cream form of aureata in this country and has tried for many years to get seed or plants of the orange or type plant. If seed sets in 1956 her long quest will have ended as a generous English grower has promised to give the crop to her. If this hope materializes it will not be long before seeds of the most beautiful member of the Petiolaris Section (bhutanica is a close rival with its light sky blue to grey saw-toothed petals) will be available. "Primula aureata, which has only a small descriptive paragraph in the Dictionary, is worthy, I think, of a good deal more attention. It is a magnificent foliage plant bearing its white meal throughout the year, unlike Edgeworthii, which loses its farina in the growing season. P. aureata's flowers, too, are really large being yellow and orange but, as the petals roll back the impression is more of an orange flower than a yellow one. I flowered a batch of seventeen in my garden last year and David Wilkie took a nice photograph of them. The scape, in this country at least, never reaches anything like two inches long. I have probably grown more of this species than

anybody else and from my observations I would say that the scape never exceeds one-third of an inch. P. aureata has quite a romantic history, as you may already know from my writings for the Scottish Rock Garden Club. I understand I am the only person in the British Isles to have raised this species from home-saved seed, thus proving it was a species. Almost the same time as the seedlings flowered proving this, it was found in the wild as a plant for the first time. The original plant was raised in this country from a stray seed in a packet of Swertia." (David Livingstone, Edinburgh, Scotland)

P. auricula: Leo Jelitto, in his Garden Primulas, writing of certain of the Schulusselbluem (or flowers resembling a bunch of keys), points out the sometimes forgotten point, "Primula auricula, and the hybrids are rock Primulas and as such demand to be associated with rocks. In nature they like a soil somewhat rich in lime, and suffer less in direct sunlight than all other Primulas, which is a characteristic due to their completely dissimilar leaf structure." (Editor's note: Some of the growers of the species and hybrids of the Auricula Section do not believe in any application of horticultural lime. The plants grow very well without it in the Northwest U.S. The theory is that the natural lime, which sluffs very slowly indeed, has a different effect on the plant than that which we are able to apply artificially. However, the most beautiful marginata and auricula hybrids can be grown with a rock (Mrs. Berry prefers the very small round stones) mulch which will help to keep the slugs away and provide a slightly heavy carpet to minimize heaving.

P. Baileyana was introduced by Ludlow and Sherriff in 1947. It has steadily grown in popularity with gardeners and seeds have become available. Although coming from the Rotundifolia Section, which is rather notorious for difficult members, this species seems to be an exception and one to be attempted by Primula growers whenever seeds can be procured.

P. Beesiana, illustrated on page 7 of the January '54 Quarterly, is a deciduous Candelabra whose leaves are distinguished by a dull red midrib and are slightly hairy underneath. It is mildly fragrant and flowers in May and June, rarely into July." (Maude Hannon, Portland, Oregon)

P. bhutanica is grown and flowered by Peter Klein of Tacoma and kept in pots which are shifted, according to his judgment as to weather conditions and the life cycle of the plant, from frame to glass house and even to exposed positions out of doors. It is grown at Wisley "beneath the protective covering of cloches which guard their crowns from excessive damp during the winter. Some are planted horizontally in the crevices and joints of the wall faces. These plants should be looked over periodically and firmed up as they have a habit of pushing themselves out of the soft peak." The flowers of this little Petiolaris are hauntingly beautiful. Although bhutanica was well pictured in the January '54 Quarterly on page 8, a black and white reproduction cannot do it justice.

P. Bulleyana is a deciduous perennial of the Candelabra Section.

P. burmanica, which is pictured on page 9 of the January '54 Quarterly is a deciduous perennial which will cross with many of the members of the Candelabra Section. "If true burmanica seed is required it is best to hand hybridize the mature bud before the insects have time to travel back and forth from cousin to cousin. Although this species is primarily a bog plant it will grow in full sun if given water during the growing season and never allowed to completely dry out. It flowers from May to June." (Maude Hannon, Portland, Oregon)

P. chumbiensis "is grown in quantity here and it seems to me that its greatest asset has been completely missed in your description. This is the astonishing leaf of very dark green suffused with beetroot red. The leaves are the perfect foil for the very large flowers of a lovely rich creamy sulphur which is generally suffused slightly with beetroot colour. P. chumbiensis is a wonderful plant which is destined to become popular. I was offering seed in my 1952 seed list and a good deal of this must have found its way into western American gardens. So you will soon see for yourselves that it is anything but a "depauperate expression" of P. sikkimensis!

Jack Drake, Inshriach Alpine Plant Nursery, Aviemore, Inverness-shire, Scotland).

P. Brodheadae M. E. Jones = angustifolia

P. cashmeriana denticulata

P. chrysopa Balfour f. & Forrest=gemmifera var. zambalensis

P. chrysophylla Balfour f. & Forrest=dryadifolia

P. chungensis "is a fragrant and deciduous member of the Candelabra Section. There is meal to be found among the flowers. We treat chungensis as a biennial because its poorly developed rootstock makes it hard to carry over after flowering. It is so easy to grow that this is no burden. It likes a rich loam and leaf mold in a damp shady spot but like many Candelabras will tolerate almost any condition if provided with moisture in its root run." (Maude Hannon, Portland, Oregon)

P. Cockburniana is a deciduous perennial of the Candelabra Section which does better if the soil is well drained during the winter. It flowers in the N.W. in May.

P. cortusoides is the typical wild Japanese species of the Section which bears its name. It grows, according to Reginald Farrer, "in any well-nourished soil which is not windswept. P. cortusoides will grow happily in the border if it is remembered that they die clean down in late summer, so that one has to be careful about noting where they are planted." (Has been crossed with polyneura to give the lovely hybrid La Loraine.)

P. cottia Widmer=villosa f. cottia

P. crispata Balfour f. & W. W. Smith=capitata subsp. crispata

P. Cusickiana "is a very beautiful, very fragrant, very difficult plant. About seven years are required to bring it to

seven years are required to bring it to flower from seed. It wants to go entirely dormant in summer, which makes it hard to keep in the Pacific northwest. Unfortunately, this native Primula is rapidly disappearing from the Wallowas because of grazing sheep." Mrs. A. C. U. Berry: (American Rock Garden Society Bulletin, March-April, 1948)

P. denticulata may be increased by root cuttings. Sir George Watt, originator of the Section Denticulata, wrote that in Bashahr the flowers of denticulata are regularly eaten in salad, and the powder of the roots is held to be of value in killing leeches. P. denticulata seeds itself at Edinburgh, is grown superbly in Western Canada, many Washington enthusiasts have collections of its many color forms, and it has met with success in Pennsylvania and New York. It is very important to save seeds of the best color forms so that the muddy colored ones may be discarded. The only way to do this is to hand-pollinate immediately upon opening of the buds or to isolate the two parent plants from



(Courtesy Royal Horticultural Society

Primula denticulata

any of their kind. When the resultant plants bloom it is well to continue the process ever seeking purer colors and better forms. The flowers and even the stalk length vary considerably in size, in nature and in cultivation, according to its location and the components in the soil. The finest blue forms have been raised in conditions favored by rhododendron.

P. decora Sims=rubra

P. deorum in the accompanying picture does not show the typical one-sided

half-hyacinth-like umbel which is shown in the illustration by Wm. Schacht, taken in the Rila Mountains in Bulgaria, contained in the rare Volume IV of the Bulletin of the Alpine Garden Society. W. E. Thomas Ingwersen of Sussex writes. "You have to go up 7,000 or more often 8,000 feet, before you see this plant in masses, garlanding every trickle of water seeping from higher ground, and at the edge of the smaller rills leading the melting snow-water to the bigger brooks and streams. A few creeping Pinus Mugo var. Mubhus sprawl about here, and Carex and Fescue grasses form a tufted verdure, whilst on the drier hummocks Dianthus mussalae forms glowing patches of deep red, intermingled with Soldanella montana. Dwarf yellow Potentillas, as well as a pretty clustered Campanula orbelica, and little Jasiones lead up to great splashes of the charming Gentiana pyrenaica var. Wagneri, which shines in satiny peacock purple effulgence in the moister spots, and leads worthily up to the flaring reddish purples of P. deorum, swinging its ample umbels on six to nine inch stems



(Courtesy Royal Horticultural Society)

Primula deorum

from every single crown or many crowned clump, dabbling and paddling in the rich black humus mud and grit at water's edge, and in shallow pools. Of course, a plant with such a habitat will not like the moraine, scree, or cool pockets to which we relegate it in our gardens. The streamside, where P. rosea waxes fat and seeds

itself about is a likelier spot if only it will take kindly to our changeable wet winters."

P. dryadifolia f. Jonarduni was improperly placed in the dictionary under its synonym P. Jonarduni. The accompanying illustration was taken in the field by Roland E. Cooper, the British Regional Editor for the Quarterly.

P. Edgeworthii is a member of the Petiolaris Section and is still listed in some catalogs by its synonym Winteri. "In the field (the Himalayas, north of Simla) Edgeworthii flowers in April and June, springing from a rosette of narrow, spathulate leaves with serrated edges. Fruiting and later specimens collected in October and November showed an astonishing divergence in leaf shape. The plant grows in the shade of Birch and Spruce forest, usually by moist stream edges, and during the summer produces triangular-shaped leaves on long petioles



(Courtesy Roland E. Cooper)

Primula dryadifolia f. Jonarduni

to a total dimension of six inches in length, but in the latter end of the year this type of foliage is no longer produced, and the spathulate leaves forming a compact

rosette are developed which protects the flower buds which are grouped on short pedicels. The line for cultivation of this plant is indicated by two features:—the long, water-seeking roots, as the plant grows by streams which run dry during the Himalayan winter; and the two types of foliage. These two types have a luxuriant growth of leaves during the summer which pile up the reserves which build the rosette and flower buds in the autumn. The plant is capable of division to an extraordinary extent, and fifty per cent of leaves put in as cuttings have produced in the last fortnight small roots. (Roland E. Cooper, Essex, England.)

P. Ellisiae: "Dr. Carleton R. Worth, of Groton, N.Y., (now Editor of the A.R.G.S. Bulletin) has collected P: Ellisiae a number of times from isolated, windswept peaks in the New Mexico desert at elevations of nearly 12,000 feet. He states that it comes promptly and profusely from seed and is a fairly permanent resident with a moderate amount of skilful handling." (American Rock Garden Society Bulletin, March-April, 1948) P. Ellisiae, as grown in the Quarterly coldhouse, flowered as only a shadow of the plant grown in Scotland and photographed so beautifully by David Wilkie, on page 55 of the Dictionary, P. Ellisiae undoubtedly needs more sun than was available during the "green tomato" year experienced in the N.W. in 1954.

P. eximia Greene=Tschuktschorum var. artica

P. farinosa: Doretta Klaber, of Cloud Hill Nursery, Quakertown, Pennsylvania, has submitted these interesting points concerning farinosa: "Last year's seedlings all bloomed this Spring, some only half an inch high, some giants of three inches. I haven't allowed them to go to seed and the rosettes look sturdy and much larger now... meaning two to three inches in all directions. They are in a bed which gets the seepage from a small pool, in almost full sunshine."

P. farinosa subsp. incana (Jones) Smith & Forrest=incana

P. farinosa subsp. intercedens (Fernald) Smith & Forrest=intercedens

P. farinosa subsp. intermedia (Sims) Smith & Forrest=intermedia

P. farinosa subsp. magellanica (Hooker f.) Smith & Forrest=magellanica

P. farinosa subsp mistassinica (Michaux) Pax=mistassinica

P. gemmifera var. zambalensis, synonym chrysopa, "is of the farinosa tribe, but has no meal on the back of its toothed, glossy, narrow leaves, though the stems of its much taller flowers are silvered. It grew from eight to twelve inches tall (leaves about three inches high), was fragrant, bloomed for a long time with color varying from lavender to shades of pink. The seedlings, which looked very healthy last Fall, suddenly disappeared, not even leaving a bud showing as does farinosa. I thought I had lost them, but more came up this Spring than I had put in last Fall! They seem to spread from side growths and also from underground runners, and look as though they would be truly perennial." (Doretta Klaber, Quakertown, Pennsylvania)

P. geraniifolia is illustrated on p. 98.



(Courtesy Geoffrey Bles, publishers of "Primulas in the Garden" by Kenneth Charles Covsar)

Primula Gambeliana

P. gracilipes of the Petiolaris Section "has been flowering since last November and survived a period of snow and frost when the temperature fell at the nearby aerodrome to four degrees below zero, that is thirty-six degrees of frost—an unusual occurrence for these parts." (David Livingstone, Edinburgh, Scotland)

P. grandiflora Lamarck=vulgaris

P. hakusanensis Franchet=cuneifolia subsp. hakusanensis

P. helodoxa "is very hardy in the Northwest in spite of being an evergreen Candelabra. At Hannon Acres the seeds are sown thinly as soon as ripe and are not transplanted until three leaves appear. We note that when we are collecting the seeds the thick sulphur yellow farina falls from the scape, bracts and pedicels on hands and clothing." (Maude Hannon, Portland, Oregon)

P. heterochroma Stapf=vulgaris subsp. heterochroma

P. hirsuta Allioni=rubra

P. hirsuta var. ciliata (Schrank) Pax=rubra

P. ianthina "stands near to the Candelabras Beesiana and pulverulenta botanically, but differs from both by being covered with a sulphur yellow farina.... It generally bears three whorls of up to twelve flowers, which are of a nice shade of violet-purple. (Maude Hannon, Portland, Oregon)

P. Inayatii "is temperamental with us and won't seed. We got it originally from Glasnevin (Doublin B. G.) in 1934 but have had it replaced since from Bodnant and it is still alive. I do not know of any seed source. (D.G.R. Branklyn, Perthshire)

(to be continued)

Errata

Readers have been kind enough to send in the following corrections to the Pictorial Dictionary which was printed in the 1954 Quarterlies. The Quarterly Staff would be very grateful if other members would send in any errors or omissions they notice before the deadline for material (September 1) for the October Quarterly. Corrections can be made in member's dictionaries for the errors which follow:

p. 2, line 18— should read: We are very fortunate to get the work of the fine Scottish photographer, David Wilkie.

p. 4, line 6—should read Aliciae (29) S.E. Tibet on grassy ledges at 15-16,000'.
p. 16: The description of the cultivated species cortusoides was omitted. Please see page 85.

p. 53, line 14—should read; "We can find this plant (elatior) in marshy soil along Creeks...." This quotation was taken from *The Garden Primulas*, by Leo Jelitto, and refers to his personal experience of seeing wild elatior as it grows in Germany. He did not attempt to classify this elatior as to subspecies or variety.

p. 87, 4th paragraph: Smith and Fletcher treat glacialis as a synonym for the Nivales species brevicula. So this description should have been listed alphabetically under brevicula.

p. 87, lines 32 and 33—should read: "glaucescens (2) Judicarian and Lombardy Alps. 1,500-8,000'. Subspecies calycina from the Bergamo region in Lombardy.

p. 97, line 11: Jonarduni dryadifolia form Jonarduni and the description should have been alphabetized under the heading dryadifolia f. Jonarduni.

p. 142, line 9 — should read: "in the open, or in frames, from the middle to the end of March with glass."

(to be continued)

Show News will be reported in January, since the interest in this subject is keener at that time. This was evidenced by the popularity of last January's Quarterly. Some show news has come in, but please send in clear black and white pictures of plants and displays.

Notes On The Supplement

Chester K. Strong*

The Supplement to the Pictorial Dictionary of the Cultivated Species of the Genus Primula was projected as a co-operative supplement to the original. In this latter effort it was believed that errors might be corrected, omissions added, and new material included. In spite of the fact that it has been well received as evidenced by sales and by complimentary correspondence, relatively scant corrective criticism has been made of the Dictionary by those who have read it or by those who have had reason to make use of it as a reference work.

(Up until a very few years ago there were not many persons qualified to edit books on the Primula and consequently many mistakes are found in the published works. Editors of magazines are not able to specialize to the extent that they can spot botanical errors and their research material has not been adequate. It would follow that the societies specializing in one genus should supply adequate reference material. The weakest part of almost any treatise on the Primula is that it is generally written for the people of one area. We need much more material, especially from areas East of the Rockies, for the rest of the Supplement which will follow in September. If the general membership will cooperate and will read the Dictionary, and make notes on their experiences, especially with reference to various climatic conditions, it will be of inestimable help to those who may be considering writing a book on the genus and it will help to make that work of the utmost importance to those of us who are privileged to read and study it. Members are invited to send material as a part of a letter or in note form. It is not necessary to write a formal paper.** The material we gather together is freely offered to anyone who might wish to use it as it is one of the prime endeavors of our Society to educate the public to the potentialities of the Genus Primula.)

Few members of the Genus Primula new to gardeners can be reported since our Pictorial Dictionary was finished. Unfortunately it may be several years before wholly new species will make their appearance. The hunters of plants are not welcome guests in many lands such as West China and Tibet which might be productive of occasional new species or new forms, and the heavy stream of Asian material has ceased to flow.

Perhaps it is best that the supply of material has been curtailed! There is enough work laid out for those interested in new and unusual plants. The *full potentiality* of available material is not realized and many fine plants are disappearing from gardens through lack of interest.

Since the period when the Asian fields were new, fresh, and most attractive, and gardens and particularly greenhouses were supplied with material from the hands of the French missionary priests, Jean-Pierre David and Jean-Marie Delavay, hundreds of species have been introduced.

Possibly the greatest profit in pleasure from the material we have on hand is yet to come. To those gardeners who prefer species to those plants with which hybridists have "tampered," the future may be somewhat upsetting. However, every indication exists that the creating of striking and beautiful garden subjects has just begun. The pleasing members of the Juliana tribe may be pointed to as excellent examples of what can be created for the garden.

There is another avenue of development, less traveled than that of hybridization, and that is the highway which leads to adaptation of plants to changed conditions.

Roland E. Cooper, writing in the Journal of the Scottish Rock Garden Club,

*Chester K. Strong, our hard-working, dependable and much-loved Regional Editor has resigned because he is suffering from eye-strain and because he would like to have more time to work in his own garden.

**Please send notes and manuscripts to the A.P.S. Quarterly, 6016 Jennings Avenue. Portland 22, Oregon.

"There has been little change for thousands of years. A tree may fall but its branches leave little gap in the canopy and are soon replaced. Under these conditions then, have the earliest forms of petiolarid primulas grown. They had little need of seed, finding it sufficient if their soft greenish stems fell upon the moss to bud and grow again. Even when primeval shade gave way to primeval subdued lighting and flowers came to be, there was no need for growth to be arrested. The flowers formed seed which matured— 'ripened' is hardly the word—the fruit tissue covering them just slimed away and they fell among the moss that carpets everything and grew into plantlets without any check to life's continuity: well nigh viviparously.....

"..... Conditions did change and certain of the woodland forms found themselves dangerously near to the upper limit of their forest home (2,500-10,000 feet). Indeed it would seem that the more venturesome of them explored the upper tree-less regions and finding that they did not die of exposure, but could adapt themselves to its rigours, made a colony or two. After all, the air was still always damp from the swirling mists and it was equable although cooler......"

The observant gardener discovers that species under his care have powers of adaptation also, just as the Petiolarids which dramatically, over a long period of years, climbed from the floor of a rain forest to strike roots in more solid soil. He is happy to discover that a species such as P. Sieboldii is not a plant demanding exactness in planting. Through error or carelessness this plant was left to the mercies of the rays of a blistering Colorado sun through a long summer with little or no humidity, to bear temperatures of well above 100 degrees. Through the following winter this Sieboldii withstood temperatures to 20 degrees below zero, with no protection in the way of mulch and came through with a great increase of crowns, with leaves of a better color, and flowers of brighter, gayer hues. The gardener thus makes a new discovery, born of his patience and skill, of a plant of merit, one with powers of adaptation; a useful garden plant. In spite of this experience it is recognized as a necessity during the period of acclimatization to provide these plants with ample water from a hose line.

The extent of the adaptability of most of the Asiatic species is yet to be discovered and for this reason members of the genus remain not wholly exploited, and their virtues are undoubtedly greater than is now realized. It may be remembered that during the latter years of the 19th century, when the members of the genus were first coming into popularity, they were almost without exception treated as greenhouse plants. A score of years passed before some unknown grower became venture-some and moved specimens to the out-of-doors as hardy plants. Some thought should be given now to whether or not the sturdier forms are not too much coddled.

With the ceasing of the steady flow of new Asiatic plants, which began about 1860, gardeners will have an opportunity to make broader use of the numberless species now available. Improvements should be expected in existing types, for by rigid selection, or even by hybridization, strains and types even more beautiful than those of today, far hardier and better adapted to general garden use over a greater environmental field, should develop. The first step in improvement of any species is to secure examplary seed or fine form of a species from a competent seedsman or nurseryman. A few plants out of many seedlings should appear with improved habit and color. This is not discouraging to the gardener, for he is privileged to have the

opportunity to do his creative bit toward the improvement of the species in cultivation, or to create new forms from the old.

Maude Hannon, of Hannon Acres, Portland, where exceptional Candelabras are grown, notes a point where the seed user should show caution, a warning which, when observed, will eliminate the possibility of poor strains. Her caution can be applied to species in sections other than Candelabra. "This decidious species is one of the first to appear in the spring," she writes of P. japonica. "Its color is very recessive and if the lighter japonica, such as Postford White, are planted in the vicinity, many of the seeds are likely to produce plants with streaked or unsightly flowers."

Mild criticism has been directed at the Dictionary because species were included in the cataloging which have never been widely grown, some only in botanic gardens, and the seeds of which are almost impossible to secure. The original plan was to include all species which had been grown and flowered in gardens and glass houses. This criticism is undoubtedly justified in the case of P. Knuthiana, P. laciniata, and a few others. However, it is noted that each year the lists of seedsmen specializing in Primulas grow a little longer, reaching a little farther toward completeness. The seeds of plants practically unknown a decade ago are now available, but often from more or less obscure sources.

Any plant introduced first must be acclimatized to a new environment, induced to set seed under adverse conditions, and then a supply of seed must be accumulated before distribution becomes a reality. Often plants flower but do not set seed or but a scanty supply. It is possible that, where species in cultivation are expected to pollinate or set seed in a natural manner and do not, the trouble lies in the fact that there is no properly constituted creature to do the pollinating. Plants from the alpine areas of the Rocky Mountains when brought to considerably lower levels often flower but do not set seed as many are not always inclined to "self" pollinate. There are no honey bees in the alpine zone and the task of pollinating is carried on by other insects. This phenomenon would bear further observation.

There are errors in the Dictionary, but there were some beautiful errors in Sam Johnson's first lexicon. The errors in the Dictionary of the Primulas might be accepted as of minor nature, but a few are admittedly a little ridiculous. There are, it is granted, no Alps in Normandy on the west coast of France. The charming member of the Auricula Section, P. glaucescens still is found in the Lombardy Alps, and definitely not in any mountains of Normandy. While on the subject of P. glaucescens, it might be well to mention that its subspecies calycina is spelled with a final "a" and not an "o". It, too, is found in Lombardy. Similarly the Cottian Alps still lie between France and Italy and over them the Auricula P. marginata still grows and exposes bright and gay flowers to those that are so fortunate as to see them.

In the Journal of the Scottish Rock Garden Club, Roland E. Cooper writes,: "There is no doubt that the species of the Petiolares primulas offer in their expressions the most exciting material for the broadest range of interests,....... To my mind the clue seems to lie in Primula bracteosa for as it grows in thick layers of moss in the wet zone of eight to ten thousand feet in elevation it tends to produce, as flower production ceases, stalked leaves at the top of the scape from among the bracts of the flowers. (P. lacerata of sub-section Chartacea does the same). The ability to do so implies the existence of potential vegetative regeneration which of course allows the possibility of growth change and adaption to varying conditions of the plant's habitat."

David G. F. Barton, of Gay Border Gardens, Royal Oak, B.C., disagreed with the following statement in the Dictionary, page 53: "we can find the Oxlip in marshy soil along creeks and meadows permeated by spring water provided the soil is not sour." "I have actually seen the Bardfield Oxlip growing in a wood near the village of Bardfield, Essex." he stated in his protest. "However, as my mother was brought up

in Bardfield I wrote to her for confirmation. She has never found Primula elatior (Bardfield) growing in marshy soil." Mr. Barton did not disagree and drop the matter, but is endeavoring to discover more of the characteristics of the plants passing under the names "Normandy" and "Bardfield" as applied to P. elatior and is growing these plants with the hope of discovering what differences, if any, exist. The genesis of these two plants is deeply involved with the Flemish weavers who came into the area where the Bardfield is found, bringing with them continental plants. The plants, too, have a tendency to hybridize to a point where true species may become extinct. I disagree with Mr. Barton in his hypothesis that the Bardfield is identical with P. elatior subspecies leucophylla.

On page 43 of Vol. 23, No. 1, Quarterly Bulletin of the Alpine Garden Society, "Euanthes," makes the statement that: "These two species (P. Ellisiae and P. Rusbyi) had been in cultivation a good many years before Prof. Bayley Balfour and Prof. Cockerell viewed them both in flower and were satisfied that they were distinct." Smith and Fletcher in their monograph on this species continue: "In P. Rusbyi the calyx is much smaller and the corolla-tube long-exserted—as one would expect with a small calyx! The larger calyx of P. Ellisiae often equals the corolla-tube. The differences are somewhat beyond the ordinary fluctuations in the relative lengths of calyx and corolla-tube." P. Ellisiae is looked upon as being of easier culture than others of the Section Parryi.

There may exist some confusion concerning P. incana and P. intercedens in the Dictionary. The photograph captioned P. intercedens is of a plant made on Clear Creek in Colorado, about 15 years ago. As far as I know after more than 130 years of intense botanizing over the mountains of Colorado, no specimens of P. intercedens have been found. P. incana is not uncommon, at 9,000-10,000 feet in the Colorado Rockies, where it grows to a height of 12 to 16 inches. When flowering in an environment pleasant to it, it is an upright, cheerful creation. The three species, P. incana, P. intercedens and the Idaho plant should be grown in a garden for direct comparison. I believe the statements made concerning these plants were too positive. It would appear that the Idaho plant requires more thorough investigation.

The Alpine Garden Society

Members of the American Primrose Society would find much of interest in the Quarterly Bulletin of the Alpine Garden Society.

The genus PRIMULA is of outstanding importance to all rock gardeners and new introductions (of which there have been several in the last few years) are fully described, usually with photographs.

In earlier volumes there have been numerous articles on European and Asiatic Primulas and the separate numbers are mostly available.

The subscription is One pound per annum, payable on the 1st of January but American Members can, if they find it more convenient, remit \$2.80 to Dr. C. R. Worth, Groton, N.Y., one of the American Hon. Secretaries of the Society, who is empowered to issue receipts on the Society's behalf.

Apart from shows and meetings in which Overseas Members are unable to take part, the Society has recently inaugurated a Seed Exchange in which Overseas Members have certain priority, whilst such Members can utilize the services of the "panel of experts" and are welcomed on the Society's Continental tours.

Subscriptions should be sent to the Secretary, C. B. Saunders, Husseys, Green Street Green, Farnborough, Kent, or to Dr. Worth as above.

J. H. Michaud, Another Link With the Old Florists



FRANK H. MICHAUD
"The one who has done the most to
further the culture of the Auricula in
America and Canada for 1955."

This is the story of Mr. Frank H. Michaud, a man who has spent his lifetime in growing hardy alpines, perennials, and dwarf shrubs for the rock garden and alpine screes. He started as an apprentice in nurseries in France. Later he spent some time in British gardens until military duties called him back to France, but he never lost the dream of having his own collection of alpines and miniatures. This dream came true after his marriage and the founding of his own nursery near Paris, on the Marne river. But the river proved unpredictable and finally floods washed out plants, sash, and glass in a ruinous deluge.

When everything was washed away Mr. and Mrs. Michaud decided that it would be better to start again in a new land more hospitable to the growing of alpine treasures. By a miracle of intuition, Mr. Michaud found a spot which now lies beside the transcontinental highway of Canada and near the main western highway running North and South on the Pacific Coast.

A good money crop was found in sweet pea seed, as the large seed growing firms of California had not as yet attained a monopoly. In a few years the pioneer was able to send for his family and build a substantial home on his own plot of ground which included a deep ravine and several acres of fine virgin soil. Tall timber almost blotted out the view of the mountains in those days.

Sweet pea culture gave way to a splendid collection of Alpines, Perennials and dwarf shrubs for rock and alpine gardens, garnered from famous commercial and botanical gardens of several continents. The rocky coastline with the high mountain range behind suggested rock gardens to the people of Vancouver and surrounding territory. Such gardens could be small, intimate and interesting and fortunately were possible since Mr. Michaud could meet the demands for dwarf plants.

Mrs. Michaud lived to see the establishment of a successful enterprise. called Michaud & Company, Alpenglow Gardens, which is now managed by three Michauds, the father, Frank, the son, Roger, and daughter, Christiane.

Christiane Michaud runs the home and is responsible for the finer "green thumbing" of seedlings and cuttings. She is especially interested in the Encrusted and Kabshia Saxifragas and the Haberleas. The family shares her regard for Border Carnations: about thirty varieties of flaked, striped, and plain colors have been imported from England. Christiane is especially fond of Dianthus, which come in so many interesting forms, some fully double, some laced with white, maroon, crimson, and pink, all with lovely grey foliage which consoles the owner until the plant is in bloom.

Roger, the son, has taken over the wholesale production of the heathers, azaleas and border perennials. His special hobby is the growing of dwarf and miniature evergreen shrubs, which are all on their own roots and are very slow growers which do not need

pruning to stay dwarf. Some varieties grow only one fourth of an inch a year, and plants three to four inches high are sometimes six or seven years old. His favorites, Abies Balsamea nana, Chamaecyparis Obtusa Coralliformis, Cupressus obtusa nana gracilis, Juniperus communis compressa and Juniperus Shimpaku, he considers as "gems."

The family has garnered from the Alps many of the species and natural hybrids of the Auricula Section, as well as other rare primula. To quote Mr. Michaud, "I became actively interested in Show Auriculas in 1937 when I found an article written by Dan Bamford. I wrote to him to get information, we had quite a correspondence, and he sent me twelve Auriculas as a gift, through Cyril Haysom. That was the beginning of a happy and true friendship, this was about seven years ago. Since then Dan and Cyril have done all in their power to supply me with all the best varieties available, and for this they have my lasting gratitude. All did not go very well at the beginning, we tried several recommended composts with many failures until we found the one we are using now with excellent results. With all the disappointments and expense of the many shipments which contained plants which were "dead on arrival" and others which needed hospital treatment, Roger was not very enthusiastic about Auriculas which are very expensive to import. Now he is as keen as I am and thinks that they are interesting, beautiful, and fascinating. The first thing he does every morning is go to the Auricula house to see if he can find something new in the seedlings coming in flower."

Those who have had the good fortune to visit the Michauds in April and May, especially this year, have been able to see some of the finest Auriculas grown on this continent, certainly there are none better cared for. Plants are tended as carefully and as regularly as babies on hospital schedules. Roger cannot stay out of the Auricula house when Auricula fanciers are trying to buy plants. A warmth settles down induced by a common and wonderful interest. Mr. Michaud carefully weighs the question of how many plants he should sell to each individual, so as to be fair, and to share them with as many as possible. A catechism is quite often in order as the plants must go only where they are cared for. All questions as to growing are answered as fully as necessary. The Michauds are much more interested in the plants themselves and the people who are getting them than in the money. Like all dedicated nurserymen, money is only a means of getting more and more rare plants and holding the stock at a high point. This attitude is due perhaps, to the fact that hobby and business are one.

Mr. Michaud has been hybridizing the named English Show Auriculas and many of the resultant seedlings "point up" as well as the parents. He has a Yellow Self which scores as well as any plant in this country. The texture is excellent, the color clean and vibrant, seven petals on the corollas which open flat and perfectly round, the paste is perfect in texture and proportion, and the anthers fill the tube. There are other fine Yellow Selfs which rate only a few points below this prime beauty; and hand pollinated seed is forthcoming which should give excellent plants. The benches are full of fine Green, Grey and White Edged Auriculas which are kept for stock plants for seeds. There are many growers who are waiting for these Canadian plants to come on the market and every offset of some of the rare named English varieties is spoken for in advance. However, any truly enthusiastic grower will not go from the Alpenglow Gardens empty handed, as it is Mr. Michaud's purpose to spread the cult of the Show Auricula throughout the continent.

Things have changed around the Alpenglow Gardens. Across the street, where the virgin timber formerly cut off the view, is a community of homes and service stores. Within the nursery the deep ravine with its lively creek shuts out the modern world. The coldframes are filled with treasures of hardy plants such as many primula species from the famous houses of England and Europe whose names are only whispered in reverence since importing has become so difficult. The greenhouses hold powdered Auricula treasures and many new Cypripedium from Japan as well as starts of all the hardy treasures which are lined out in rows as soon as they are ready. All is tended with order and precision which was instilled in the young Frenchman while he was still an apprentice in France where land is at a premium and the products of the land are

held in high respect. He is a fortunate man indeed that his children have inherited his interest as well as his facility with plants.

Over the years those who have received plants from Michaud & Company seem to have given him a part of themselves; and he has accrued a richness and mellowness of character, completely free of envy, malice, or even judgment. Because the plants which he has loved and grown are now loved and grown by others, a bond has grown which ribbons across the continent.

Report from Vancouver, British Columbia

R. Boyes

A delightful and historic occasion took place on Sunday, July 10th, 1955, at the home of Mr. and Mrs. D. W. Duncan, 521 East Windsor Street, North Vancouver, when the Bamford Trophy was presented to Mr. F. H. Michaud, 13328 Trans-Canada

Highway, New Westminster, B.C., by Florence Levy, Editor Emeritus of the A.P.S. Quarterly, who was accompanied by Susan Worthington, the present Editor. Other guests from the States were Wayne Arnold, the A.P.S. President and his wife and Mr. and Mrs. John Shuman, who won top honors in Auriculas in Tacoma this year. Mr. LaVerne Baldwin, the American Consul, and his wife honored the occasion with their presence.

of an old copper kettle which has been the much coveted trophy of the Lancashire Auricula Florists for well over a century. This trophy was presented to the American Primrose Society by Mr. Dan Bamford to be presented for the first two years to the one who has done the most to further the culture of the Auricula in America and Canada. Next year and each consecutive year the trophy will be presented for the most perfect Show Auricula seedling in the U.S. and Canada.

the visitors from Oregon commented, "The fact that this award comes from England to the United States, then in its second year is awarded to Mr. Michaud in Canada, who was born on the banks of the Seine in France, makes a very fine gesture of international friendship, and I am sure thoughts like this do more for our friendly relations than any acts of our statesmen."

The Bamford Trophy is in the form Mr. James Watson who entertained

(Courtesy of photographer, Douglas Duncan) Mrs. Levy and Mr. Michaud

After the presentation, refreshments were served by the ladies of the newly formed Canadian Primula and Alpine Society,

The Presentation of the Bamford Trophy

A Speech by Florence Levy

There should be two honors, not one, bestowed upon Frank Michaud. But perhaps one is inherent and concealed within the other, for is it possible that a man can love plants as unselfishly as Mr. Michaud and not love his fellow men as well? Mr. Michaud has reached that estate toward which we all strive. He is a success as a human being. Has his love for plants and all nature served as the key to loving and understanding his fellows? Or has his faith in God and men made him one with nature?

It is fitting that Mr. Michaud should be specifically honored for his work with Auriculas. As you know he was born in France where the Auricula is known as the French Cowslip. Not so long ago these flowers bobbed on the bonnets of the little grisettes hurrying to their work in the millinery and sewing shops; they ornamented aristocratic heads at evening functions; were the pride of the priests who grew them in monastery gardens, guarding them from view until the grand display in elaborately prepared Auricula Theatres; they were cherished plants in cottage gardens. But the Auriculas for which Mr. Michaud is being honored have been brought far beyond anything known then. And there is no doubt in the minds of any of us that he has done more toward furthering the Auricula movement on this continent than any other individual. It is gratifying to have one's work recognized. To have that recognition the result of overwhelming opinion is a crowning satisfaction. Mr. Michaud was elected to receive this honor by the Americans without the assistance of our Canadian friends. Canada elected him without the help of the Americans.

If it were not for Mr. Michaud it is doubtful we would yet know the thrill of seeing the named varieties of Show and Alpine Auriculas of which we have read and longed for so many years. Mr. Michaud is a nurseryman, yes, but a plantsman first and a nurseryman second. Undoubtedly loss and disappointments have attended the acquiring of these plants. He now stands in a position to recover those losses in their sale, but not Mr. Michaud. He keeps a benevolent eye on a safe backlog of plants so that there will be some for all who want them. He distributes them with judgment and fairness.

He is developing seedlings through selection and hand-pollination which promise to supersede some of the finest of tradition. No one will be more proud than Dan Bamford, who gives this trophy, when that happens. Dan Bamford's name has long been synonymous with Show Auriculas. I venerated him long before Auriculas were known here and before I met him in correspondence. Years ago I read of this Englishman's love of Auriculas, which stemmed from his early boyhood when he watched the old hand-loom silk weavers bending over their frames of fragrant Auriculas, losing themselves and all sense of time. In the blooming season the looms could be heard far into the night in a desperate effort to recover the hours.

This traditional kettle which Mr. Bamford is awarding Mr. Michaud today has undoubtedly been received by some of these weavers of the past century - also for outstanding service to the Auricula. I present this trophy to you, Mr. Michaud, for Dan Bamford who writes, "I am very pleased to hear that dear Frank has won the trophy. When he holds out his hand to receive it he must imagine that at long last he is shaking hands with his old friend Dan because I have also handled it." In all honor, Mr. Michaud, this recognition from three countries.

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FOR her outstanding work in improving strains and hybridizing Primroses, and

FOR her inspiring influence upon other, hybridizers which has laid the groundwork for the increasing value and popularity of these beautiful horticultural specimens, thereby establishing Oregon as the world center of Primrose development, and

FOR her lectures, writings, editing, judging, and furthering of organization of the American Primrose Society.

This Certificate of Recognition and Honor is Awarded on this Sixteenth day of June, 1955

to
FLORENCE LEVY

And the record of her life and achievements in her chosen field has been made and placed permanently on file in the archives of the Oregon Federation of Garden Clubs, the Oregon Historical Society, the Oregon State Library and the Portland Library, to become and remain a part of the cumulative history of horticultural achievement in the Oregon Country, for the creation of which historical record and recognition, this citation is made.

Chester K. Strong has resigned as Chairman of the Regional Editors. He was unable to complete his last assignment, that of compiling the Supplement. The long hours spent typing much of the research material for the Pictorial Dictionary, as well as those spent checking and rechecking the Species and Synonym list, published in the April 1953 Quarterly, have undoubtedly added to the severe eyestrain which is causing him so much trouble now. His has been the height of unselfish service. May the curative effects of working in his garden bring him renewed strength.

The Banquet In Honor Of Peter Klein and his winning of the Quarterly's Premier Award for Hybridizing was a complete success. The Tacoma Primrose Society gave the banquet and their President, Cyrus Happy III was the host and Master of Ceremonies. The presentation of the Award was made by Florence Levy, Dr. Matthew Riddle gave a most stimulating talk on hybridizing techniques, and Robert Saxe, A.P.S. Regional Vice President for California, amused the audience with anecdotes on the pleasures and problems of Auricula culture. The occasion was highlighted by the unexpected visit of Mr. Klein's son. Mr. Klein said that the visit of his son, whom he had not seen for several years, coupled with the honor of receiving the Award, made this the most wonderful evening in his life.

"Native Collectors" of Primulas

Roland E. Cooper, British Regional Editor

In the Indian Himalayas where there is a native population, you may be sure that the European officials of the great East India (Trading) Company — Doctor Buchanan, who found *Primula denticulata* in Nepal in 1802; Doctor Wallich, who found *P. involucrata* in the province of Gerwhal in Northwest India in 1825; Doctor Royle, who found *P. rosea* in the same region in 1831; and Doctor Hooker who got us *P. capitata* and *P. sikkimensis* from Sikkim in the east Himalaya in 1848-9, were ably assisted in their endeavours by native collectors.

Many of these Indian natives were men whose training in natural history was gained from their own tradition or was eagerly absorbed from their masters. They accompanied them on their explorations, loyally and lovingly caring for them, and indefatigably serving them to the utmost amid all the terrors of unknown territory.

The officers of a later generation dealing with natives of the same regions came to rely upon their devotion to duty so implicitly that they sent them out *alone* to look for fresh plants and material. You may read of their style in other services in the work of that great Anglo-Indian writer, Rudyard Kipling.

The directors of the two main botanical stations—the Botanic Garden at Calcutta in Bengal, and the station 800 miles away between Simla and Delhi at Saharanpur in Northwest India—sent their men out collecting. These were called 'King's Collectors. who worked under the aegis of Doctor George King of Calcutta. We would

seem to be most indebted to one named DUNGBOO, who journeyed north for five hundred miles and climbed the Himalayas to their crest at nearly 15,000 feet to find plants on the other side. No one speaks of his tribulations and strains of the trips he made, yet he got for his master's records P. bellidifolia and P. Wattii from Sikkim, and P. geraniifolia in the Chumbi Valley in Tibet between the years 1875-82.

From the N.W. station at Saharanpur, it was for that splendid botanist DUTHIE that the collectors went out to return with, among other species, P. Reidii. One of them named Inavat Khan did indeed have a Primula named after him; about the weirdest kind of bird's eye that exists, P. Inayatii. His wanderings before he found it must have been nearly a thousand miles from his base to that notoriously inhospitable-especially at that time-(in every sense) land of Afghanistan. He was, I suspect, a Pathan, for no man of another race could have survived, he got away with it several times through the years 1896-1900; so that P. hazarica Duthie honours that fierce region alone.

Among the native collectors associated with the Calcutta Botanic Garden and her kindred Garden on the slopes of the Bengal Himalayas, the Lloyd Botanic



(Courtesy Royal Horticultural Society)

Primula geraniifolia

Garden, were certain natives of Sikkim called Lepchas. Since their tradition of work in the wild is akin to that of Dungboo and Inayat Khan, and since I had the good fortune to have them for collectors during the years I spent in the Himalayas, it gives me pleasure to tell of the more human incidents of our association.

My chief collector was Rhoomoo Lepcha. We met when I visited Mr. G. H. Cave, the Curator of the Lloyd Botanic Garden (see A.P.S. Dictionary, January '54 Quarterly, p. 12), to arrange for my first trip into Sikkim. Rhoomoo had been coupled with one named Ribu who went with Cave and W. W. Smith, of the Calcutta Herbarium, into Sikkim for a few weeks in the summers of 1909-10.

Rhoomoo recruited a small band of villagers and off we set, wandering along the track and getting higher and higher as the days went by, but always through elevations bearing lush forest with well nigh impenetrable undergrowth. At 9,000 feet above the sea, a critical height for those who have never ascended such places, I became possessed of a frightful headache and my limbs seemed too heavy to move. I just wanted to sink to the mossy floor of the spruce forest we were traveling and go to sleep. Rhoomoo cajoled me to go on, for there was a small rest hut 'just along the way.' In the end he lifted me to my feet and with another collector literally dragged me the few remaining miles to it. Here I just lay on the bed for forty-eight hours and then awoke-fresh as a daisy. The headache had gone, and with it the other symptoms, which Rhoomoo assured me were only due to the height and which would never return for the rest of the trip, no matter how high I went-and it was so.

The regions of the moors, where so many of the Primula of Sikkim grow, ranges from above wood or tree level at 12 to 13,000 feet, up to the snow line, which, as far as plants are concerned, is

about 16,000 feet. During the growing season this area is swathed with dripping wet clouds and mist. Everything is sodden day and night. It is impossible to be dry at any time or to see anything which is not wet. The mist penetrates bed clothes and all packed clothing and equipment not enclosed in air tight tins. This goes on for weeks and is a trial for nerves and one's sense of humor. One sleeps between blankets and foregoes linen sheets, which would encourage lumbago and chills. One's boots, although dried by a reeking fire, become wet and cold encumbrances which gradually affect one to the thighs. It soon palls. The collectors wore "putties" down to the ankles and walked barefoot.

To Rhoomoo's amazement, I said I would do the same. Now, to walk over wet moorland in boots is one thing: to walk barefoot quite another. One stubs one's



(Courtesy of the photographer, R. E. Cooper)

RHOOMOO LEPCHA, head of the "Native Collectors" gathered together for the 1913 expedition into Sikkim. "Here he stands by an average sized plant of Meconopsis nepalensis. He has within him the wells of courage, humour and common sense and the capacity for true friendship. He belongs to a tribe fully conversant with the subtle differences in butterfly wing veins, Primulas, ferns, orchids and the rest of the flora and fauna of his lovely land."

toes on protruding stones immersed in the low herbage, the harsh grasses tickle one's soles, and the feet never seem to come in the right places. I watched the men and then proceeded to learn how to walk! I had learned the trick of it in the gymnasium, had I but realized it. It was to walk putting the ball of the foot down first and placing it carefully so as to go over such country with the minimum of discomfort. I've never forgotten!

With bare feet, one could just walk through the little pools and streamlets, icy cold though they be, stamp one's feet on the other side and walk on dry-footed and warmfooted, and there is a great deal of difference between the two. Boots were abandoned until we hit civilization again and then — how cramping they were to one's walk!

The following year we found ourselves in unknown territory in Bhutan, where was spoken a jargon among the polygot tongues of India. According to local gossip this territory was said to be inhabited by people with heads of horses who, moreover, were cannibals to boot. Terrors! Yet Rhoomoo volunteered and brought another gang of helpers. It turned out that he had a knowledge of Tibetan and this served to conceive the gist of what was said. He became translator. As such, he shared in the hospitality invariably offered to me by the local governors of the districts of the country. I was teetotally inclined and used a small aluminum cover of my condiment set for the drink offered - a fiery distillation of rice. This was sipped at and set down, and my abstinence explained and accepted. The thirsty work of the translator earned him his drink which had to be taken in front of the "great ones." On the first occasion, since his refusal to participate was sternly dismissed by the governor and he was told to produce his cup, he produced from the folds of his gown where everyone carries his little shallow maplewood cup, an enamelled balf-pint mug! He occasionally sipped at the liquor until questioned "if he could not drink like the man he was said to be, although in truth he looked more like a woman." He flushed a little at the teasing and quaffed good measure. Now it is the custom for the cup-bearer who serves the wine upon such occasions to keep the visitor's cup

The time came when Rhoomoo could do nothing but just smile, a very nice dignified smile it was, but unaccompanied by words, and thus of little use for conversation. The governor seeing this, asked him for my pardon in bringing this about, and saw us to the door. "It had been a most amusing conversation that we had" he told me as we parted, but I learned nothing of it until Rhoomoo found his tongue again. In order that it should never happen again he acquired from someone (for there were no shops in the country where one could be bought) a proper maplewood cup.

We got permission from the local governor to try to penetrate a stream valley said to be impassible, in the summer, because of the turbulence of the stream, and in the winter, because the people in its upper reaches withdrew their bridge-planks to their side to stop would-be intruders.

We tried and tried to get there, but without avail. We came across a sulphur spring which had been trapped by the locals into a series of bathing pools. It smelled as only a boiling sulphur stream can, but we had not had a decent bath for weeks and had we but known it, were rivals to the spring itself.

In we went all together and just revelled in it, but half an hour of the hot turkish bath was about enough. With visions of Russian baths where after the hot, one bathes in cold, I suggested that someone find if the nearby cold stream had a pond in it. A pool was found about twenty feet across in which I plunged and swam about. The others just watched me and joined in a cigarette when I emerged and sat on a pool-side boulder. Not so Rhoomoo. To my absolute amazement, he slithered down the rock face and struck out, in a somewhat ungainly parody of the breast-stroke I had used, for the other side. That reached, he came to turn around and suddenly became a fighting mass of limbs going steadily to the bottom. I plunged

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in and got him out, draping him over a rock to empty him of the water he must have swallowed. After a few gurgles and coughs, he sat up and grinned, albeit with watering eyes. Inquiries upon what happened to him resulted in the admission that he had never tried to swim before, but since the "sahib" had always said that what the Sahib could do, he could do; and that what he could do, the Sahib could do if he tried. He had watched the Sahib "like a frog in the water" and did the same. He had got on quite well but when he went to turn around and come back, there was no bottom to put his feet on and the water went down his throat and upset him. That was all; how had he got out? and where was his cigarette?

What can one do (or not do) with men like that?

In the autumn the mists disappear, the sun shines, a most refreshing wind echoes over the hills, and there is a touch of frost at night. This is nature's winding up time and the busiest for seed harvesting, for with the sun the pods ripen, and with the wind their contents are scattered.

The air on those high moors has the effect of champagne in invigorating and exciting one's self. On one occasion the party of Rhoomoo and I, one particular man who carried "iron rations" and the camera, and a couple of the Bhutanese escort, took up a refrain one of them was singing as he skipped along. Almost at once we were in line, hands linked, and dancing over the downs, singing at the tops of our voices. The happiness of the occasion could only happen a few times in life. We carried on the dance to the end of the spur where we sat down, laughing, to rest.

At one crossing of the ways in Bhutan, there stands by the stream-side an ancient and collossal cypress tree. When passing it once, it was observed to be shedding its seed. The nearest branch to the ground was some fifteen feet up, but it bore a tremendous crop on its furthest length which hung over the stream. A volunteer was invited to scramble out upon it to gather seed, for there was a subtle danger in the situation. Up went one man, working his way slowly along the branch, lying flat upon it. Then he stopped and no more. He didn't answer our shouts, and we realized that he was the victim of the vertigo that affects some people who look down at running water. I was getting ready to go to his help (I was a gymnast in those days) when Rhoomoo intervened with "I"ll go first and you can follow if required." Up the tree and out on the limb he went, climbing right over the dazed man. He tried everything to bring him around and make him move, but to no avail. Soon he called down. "Come quickly, sahib, I fear he falls and I am holding him on, but I feel the water devils working on me." How we got the man down safely I do not really know. To make him loose his hold, Rhoomoo banged his fingers with the back of a kukri, drawing blood. I remember him saying as it flowed: "There is our sacrifice, O devil of the waters. Let our man go, for the conqueror of the fear you put in us comes to take us away." The inevitable cigarette soon brought the man back to his usual self and then Rhoomoo assured him that he would never be so smitten again, for we had held "ceremony" for him; adding, "You'll go up and get some seed after tea, in the excitement of getting you down, we forgot it." After tea the man went up a bit further out than he was before, cut off some twigs with good fruits on, and sat on the branch deliberately swaying up and down, making rude remarks to the devils in the water below, before he came to earth, quite unaffected by the afternoon's goings on.

All the Lepchas I have known have been excellent naturalists. After a day's hunting for plants they would sit around the fire and with Rhoomoo taking flowers to bits, would discuss how one differed from another, or the local form differed from that of their beloved Sikkim. Anything new was subjected by the lot of us, for I joined in, to the most exacting scutiny. If we agreed it was new, then it was so; for Rhoomoo at least had done quite a lot of exploring on his own. Cave sent him and one or two others out quite often. Cave knew Sikkim like the back of his hand and every flower like the hairs thereon.

When I was in Sikkim exploring the great range on its east boundary, beyond

which is the Chumbi valley, Rhoomoo offered to go over the border (which my pass forbade me to do) and see what he could find. I didn't realize for some time (years, in fact) that, as the phrase goes "He knew something." I broke off exploring to go battle fighting in the 1914 war, after which I went to Burma for seven years, so that it was not until I came to work in Edinburgh in 1930 that I made contact with my collections again. Consequently not till then did I discover that on his trip to the Chumbi Valley Rhoomoo had brought me back a new Primula. It was only in flower and we got no seed of it. This was "the Primula from the Chumbi valley," P. chumbiansis, given its botanical birthright in 1912. It was nice to read that Rhoomoo was given the credit for finding the plant.

Bhutan's flora is much like that of Sikkim. It was to quite new and different ground that I took Rhoomoo and his friends when we went off to the northwest and traversed for a while the road that Sven Hedin travelled when going into Transhimalaya, where he saw P. sibirica and P. Stirtoniana at the source of the river Tsangpo. He found it quite exciting, for not only was the surface of the land different, but the flowers were on the whole very different too. He found a purple fustian-dressed Tibetan in the Simla market and held great converse with him. He also got a promise of help from him, but this never materialized.

Deodar forest with its quantities of towering trees charmed him, but realist that he was, he said that plant communities in it were something like some parts of the Bhutanese drier forest. All the collectors marvelled to find themselves at 16,600 feet crossing the great Baralarcha pass into Ladakh. The land was so flat they had not been conscious of climbing at all! They were disturbed at having to carry their drinking water and fuel for a few marches, the local water being strongly mineral impregnated, and the fuel-well, it simply did not exist.

On the whole, they all thought it a poor land and quite incomparable with their own Sikkim. With this I agreed, and we parted the best of friends-they to go home, and I to "join up." Life has provided no opportunity to meet again and, with my appreciation of their services, friendship and humor increased in retrospect, I thank those grand "native collectors" most sincerely for it all.

*Records Bot. Survey and Index {Vol. 4, No. 5, p. 141-165} Vol. 4, No. 7, p. 323-341 Vol. 4, No. 7, p. 323-341

The Scottish Rock Garden Club

THE SCOTTISH ROCK GARDEN CLUB acknowledges with modest pride that the greatest part of the Story of the World's Primroses has been made by Scottish folk. It happens that the American Primrose Society has a unique relation with us through the discovery of the uniqueness of their native primroses in the Parryi group. Its members will find much of appeal concerning primrose background and behaviour - vital features for all who grow and study their plants - in the Journal of the Scottish Rock Garden Club. But primroses are only a part. There are illustrated journeys to other lands to see their plants for rock gardens and facilities are offered to get their seed. Naturally, Scotland's countryside is also shown. Because of our great range of successful cultivation, we can help you quite a little with your problems and shall be delighted to do so. In our Journals are many articles on primroses. Annual subscription is ten shillings or One dollar and fifty cents. Further information obtainable from the Honorary Publicity Manager. Maj.-Gen. D. M. Murray-Lyon, 28a Inverleith Place, Edinburgh, 4, Scotland.

Robert Luscher

Mr. Robert Luscher, of Thedford, Ontario, has been working as our Editor in Charge of Translations for two years. He has translated Geo. Ahrend's book "My

Life as a Gardener and Plant Breeder," which was published in Germany by Wuppertal-Ronsdorf in 1951. Those parts which particularly pertain to Primula will be published in the 1956 Quarterlies, if all goes according to plan.

Mr. Luscher's translations have been extremely valuable for the Pictorial Dictionary. He has been the intermediary between Leo Jelitto, our German Editor, and Aymon Correvon, our Swiss Editor.

He has also translated a large portion of Leo Jelitto's book, "The Garden Primulas." which was published by Eugen Ulmer. The Quarterly Staff plans to publish large excerpts from this valuable work. much of which has already found a place in the Dictionary.

Mr. Luscher is able to translate from French as well as from English, and we hope that he will soon be able to edit a "European Column" so that we can be more aware of the work being done on the Genus Primula in Europe. First we must supply him with gardening periodicals from Germany, Austria, Switzerland and France.

Mr. Luscher is an accomplished gardener and raises many Primula species and hybrids under conditions which we, on the West Coast, would consider very difficult.



Robert Luscher, A.P.S. Editor in Charge of Translations

A Book Review by Walter C. Blasdale

Primroses and Polyanthus, by Ray Genders and H. G. Taylor Criterion Books, New York, Copyright, 1954

Although this volume is now published by a New York firm, it was first printed in Great Britain. Both the senior and junior authors devoted many years to growing and studying Primulas and Polyanthus on a commercial scale, and their publications have played an important part in arousing interest in these plants in Great Britain. Their belief that this interest is likely to be a permanent one is assumed in many of the paragraphs. One of the most amazing features of the introductory chapter pleasingly expresses the idea that the development of a wide interest in these plants during the reign of Queen Elizabeth of the House of Windsor may equal or exceed that aroused in the sixteenth century during the reign of another Queen named Elizabeth of the House of Tudor.

The first chapter is a brief but sprightly summary of what is known of the history of the single Primrose and the Polyanthus. Chapters II and III are devoted to the cultivation of these forms and are packed with information summarizing the observations and experiences of the authors. It is worthy of note that some of the suggestions made by Mrs. Levy of the famous "Barnhaven Gardens" are mentioned as of (Continued on page 105)

THE COLLECTION AND CARE OF POLYANTHUS AND OTHER VERNALES

It is quite true that the practice of raising seedlings, or buying seedlings of Polyanthus and Acaulis, is much more satisfactory than trying to keep the old plants over. The commercial Primrose growers are improving their strains so much by careful selection and hand pollination that each year's seed seems to bring new rewards in increased color brilliance for the flower and increased vigor for the plants.

However, there will be a few Polyanthus and a few Acaulis which will have won a permanent place in the garden by right of exceptional color, floriferousness or adaptability. There are the "Garryardes," the exceptional forms of "Hose-in-Hose," "Jack-in-the-Greens," "Galligaskins," "Pantaloons," the "Gold and Silver Laces," the true species of elatior (if you can approximate this according to the original description), veris, vulgaris, amoena, and Juliae. The variations are almost endless and it is fascinating and possible to work up a fine collection from the Vernales Section. Most of them are not hard to grow or hard to keep but some of them take a good bit of detective work to get.

It is quite true that a discarded Polyanthus may grow upside down on a compost heap while her twin in the garden will pine away and die. Gardeners have learned to share plants of their favorites so that they may gain insurance that the plant will not be lost. There are a few rules which the experienced gardener knows by heart and only too often forgets to explain to the new gardener. Some of the most rudimentary follow: First, the garden must be kept so free of litter that there is little place for slugs and cutworms to hide. Second, it is best to plant plants far enough apart so that they are less inclined toward mildew, black spot, and crown rot. Third, the condition of the soil should be such that it has good drainage and yet has sufficient humus to hold the moisture in the soil so that the nutriments are available to the plant. When a plant "wilts" from lack of water it is also fasting because no food is available to the plant unless it is in a liquid form. Fourth, if any fertilizing is done, the ground surrounding the plants should be thoroughly saturated to the root ends before the application. Fifth, read all manufacturer's instructions carefully before "taking a chance" by using a new product on your plants. Sixth, if you have found a method of growing plants which is satisfactory to you and your climate, think twice before you take advice, either written or oral, in the hope of finding a "better way."

In the Northwest, the division of most Primulas is carried out just before a "rainy spell during the months of July and August. In other parts of the country where the rainfall is not so accommodating, the planting can be done in moist ground and each plant "puddled in" and then shaded with old newspapers weighted down with stones or fir boughs during the day. It is ideal to plant under trees like the Peach or Locust which provide a dappled shade. Most of the Vernales tribe will appreciate morning sun in areas where the temperatures are not over 80 degrees during their flowering season. During the last two rainy years in the Northwest, Primulas, which were wellmulched with enriched peat moss, have done very well without any shade at all. The dividing is quite simple as a plant, dug and held in the hand, shows separate crowns whose roots are entwined together. Each crown with roots makes a plant which will bloom the following season. Sometimes it is necessary to use a sharp knife for dividing, and some plants pull apart in a most natural way. It is well to grasp the roots of the plant below the foliage and prune the roots just below the bottom of the fist. The top may be pruned accordingly. Each crown should be replanted in a hole sufficiently large so that there is no crowding of the roots. If any root is bent back on itself and therefore becomes inactive, progressive rot may start. After planting firmly, give the plant a good soaking to wash in the soil about the roots. Do not let the plants dry out as it is important that they have a firmly established root system before the winter frosts. Do not fertilize with a nitrogenous chemical at this time as the plants need to rest from their foliage-making activities and to give their energies to growing roots which will help keep them from heaving during the winter freezing and thawing. (To be continued).

Robert W. Ewell

The funeral of Robert W. Ewell was well attended by members of the American Primrose Society who have every reason to be grateful for his interest in and tireless occupation with the affairs of the Society. He served as President from April 1944 to April 1947 and it was during those years that the Society published its first Roster of Members and started to reflect the international spirit which was stressed by Mr. Ewell. He was able to make and keep many friends during his long life. This was partly due to his philosophy, "That in the course of human affairs there is no reason when we can afford to relinquish our hold on beauty and the pursuits engendering quiet reflection."

Captain G. L. Hearn

The Board of the American Primrose Primula and Auricula Society, the Editorial Staff of the Quarterly, and the other members sincerely regret the passing of their English friend Captain G. L. Hearn of Coreys Mount, Stevenage, Hert. It was he who offered the "runner up" trophy for the "one who has done the most to further the culture of the Auricula in America and Canada for 1954." He was the President of the National Auricula and Primula Society, Southern Section and prominent as a winner in Auricula Shows. The famous blue-purple Alpine Kathleen" was his origination. He was successful both as a Floriculturist and a business man. Mrs. O. Miller Babbitt remarked upon her return from England, "Captain Hearn was one of the most charming hosts imaginable. He was possessed of the keenest wit and was a wonderful conversationalist in the Johnsonian sense. He has communicated his knowledge and interest in the species such as Primula Allioni and the Alpine and Show Auriculas to hundreds of his friends and fellow gardeners."

(Review of Primroses and Polyanthus, continued)

importance. In chapter IV entitled "Some Early Primroses and Polyanthus," one finds a list of no less than one hundred and twenty-four varieties, including hybrids in which P. juliae is one of the parents concerned. So far as I know no similar list has ever been compiled.

No less than four of the thirteen chapters are devoted to Double Primroses, and the wealth of information therein presented will be a surprise to most of those whose knowledge of these varieties is limited. Much of this information has been acquired by questioning aged persons, or their descendants, who still held in memory some facts regarding varieties no longer to be had. This and related information is summarized in a chapter entitled "Named Varieties of Double Primroses." It lists ninety-one such names of varieties divided into four groups.

I also found the chapter by the junior author entitled "Personal Experiences" especially interesting. It describes in detail five years devoted to experimental work in learning how to meet the needs of some of the more difficult varieties. Finally there are chapters devoted to The Auricula, The Showing of Auriculas and Primulas, and Diseases and Pests of Primulas and Auriculas. There are also sixteen excellent illustrations made from photographs of specimen plants, which add much to the readers' pleasure in using this book.

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Seasonal Notes From Barnhaven

Florence Levy

Brown flowers sound rather unexciting, but in the past few years the browns of the Iris world have apparently been as popular as the pinks, and this year the demand for our brown Polyanthus is second only to that of the new pinks and blues. Last year, for the first time, browns coming true from seed were in sufficient quantity to make their appearance on show tables throughout the Pacific Northwest inevitable. Although they caused considerable comment and attention, the ultimate of what can be achieved has not been reached, and fortunately never will be in any hybridizing program. But when the first station along the way has been gained it is natural to look back and review the steps taken to that point.

Usually when one thinks of brown, a drab color comes to mind; remembering. as many of us do, the dull monotony of the practical clothes of our childhood. These new floral browns, however, are not dull but lively, not monotonous but in variation of shade and texture, not drab but vibrant, somehow managing to attract and fasten attention on themselves in the garden and on the show bench in competition with the most seductive pinks. It took about ten years to fix and stabilize brown into the Polyanthus spectrum and to establish a number of shades which come true from seed. As the years and generations progress there will be many more than chocolate, cocoa, cinnamon, ginger and coffee which are the primary shades now comprising our Spice series of Silver Dollar Polyanthus.

The first brown was a color break from our Grand Canyon series, which is bronze, tangerine, copper and allied shades. Only an optimist would go on pollinating the results of those early crosses, but surely if it appeared once. it would again. Gradually the unwanted shades were made to disappear through selection and hand-pollination and in their stead were coming red-browns, wallflower shades, so that our first browns were called Wallfower. Progressing through wallflower to wood browns, the shades finally began to resemble nothing so much as the spices we all love to use and which fascinate our imagination as well as our palate. So Spice Shades they are, for the present at least, but it may be that new spices will have to be discovered to furnish

sufficient names for the new shades which still lie within the existing ones, waiting only for time and the reshuffling of the genes. Fragrant as spices, too, are these Spice Polyanthus, for you will notice that the colors having yellow as a predominant ancestor are apt to carry some of the Cowslip perfume in varying degrees of deliciousness. The Grand Canyon series was developed from Sutton's bronze which color, of course, has a yellow and red background—but long before Sutton's could have bronze, there had to be yellow Polyanthus, and before yellow Polyanthus, there had to be their development from Cowslip hybrids.

Practically everyone interested in Primroses knows that Gertrude Jekyll of Munstead Wood, near London, did this some seventy-five years ago. It was she who laid the foundation for all modern Polyanthus, with Dean and Waterer augmenting with the reds, Wilson with blue Primroses and Cocker with his doubles. This was the beginning of Primroses and Polyanthus as we know them, begun in the '80s and carried on for approximately twenty-five years when one by one these old enthusiasts passed on and development slowed almost to a halt until the '40s and '50s in America. The torch has been picked up and is lighting the way for a far greater development in less time because of greater understanding and newer methods of plant breeding. We all salute Linda Eickman for her great contribution of the pinks without which no one of us could achieve this clear, limpid color in all its variations. We all salute Peter Klein for his determination to produce doubles from seed and for being discriminating in his selection for refined form and clear colors. We all salute Frank Michaud for his work with Show and Alpine Auriculas not only for his pioneering the traditional English varieties in America but for his own hybridizing. All of these growers are creating and sharing unselfishly and fearlessly with everyone the results of their creations knowing there is always more at the source. It was thus that primrose development began and it is thus that it is being continued. What other names will appear on the primrose page of horticultural history to be read by gardeners not yet born?

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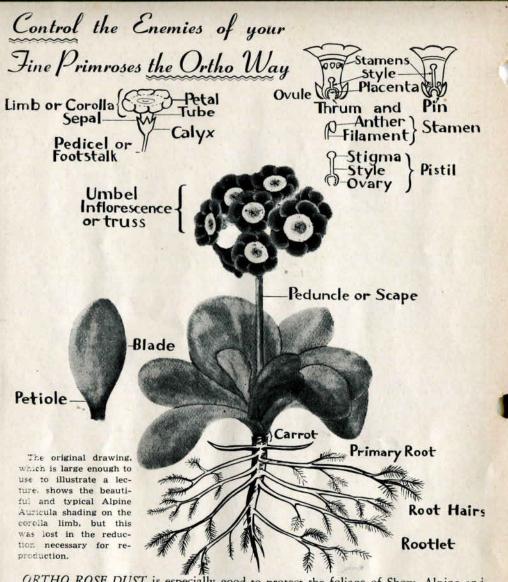
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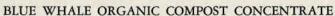
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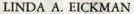
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The Blue Whale

Dear Friends:

You can see that I am simply surrounded by Fan Mail. Frankly, it does my old heart good to know that others can spout as well as I.

Mr. D. G. F. Barton, an experienced Nurseryman of Royal Oak, Victoria, B.C. writes, "Have just returned from a buying trip to Oregon, and I thought you might like to bear that the growers are saying that BLUE WHALE Impregnated Peat Moss is miraculous for producing a magnificent root system on small seedlings quickly, for maintaining that growth, and for giving the plants such a deep green and healthy foliage. I agree with them that it is indispensable, because last winter I had occasion to sow

some Asiatic Primulas that had come by air from England. The only soil I had available was some that was still left in the flats from last year. With the addition of 15% BLUE WHALE to this soil and a thorough mixing, I sowed my seeds. I am now pricking them out by the hundred and NEVER have I seen such root systems."

Elmer C. Baldwin, a well-known grower of perennials and sbrubs in Syracuse writes, "BLUE WHALE CONCENTRATE was the basis for an educational exhibit which we gave at the Spring Show of the Onandaga Primrose Society, We demonstrated one group of Auriculas, grown in the open ground, at two years from seed. The second group, at one year from seed, grown in flats transplanted at 6 months into soil fortified with BLUE WHALE CONCENTRATE mixed with a good grade of Peat Moss.

mixed with a good grade of Peat Moss.

Those grown outside for 2 years were 1½" high. Those grown in flats and transplanted to pots with Blue Whale at 6 months were 4" high, nice heavy plants of a good color."

FAN MAIL

The Levys of Barnhaven use a great deal of BLUE WHALE IMPREGNATED PEAT MOSS and have been kind enough to include a recommendation for me in their new seeding pamphlet which is just coming off the press. Mrs. Levy writes, "The performance of BLUE WHALE over a period of years has made us more enthusiastic than ever. Its unvarying dependability allows for no mistakes. We know six weeks from transplanting, our seedlings will have a root system compact and heavy enough to ship across the continent and arrive in top condition."

Your own Editor is quite a fan of mine, she once told me that "BLUE WHALE gives plants sturdiness and the most beautiful color outside of Ireland." She writes, "Douglas Duncan, the President of the newly organized Canadian Alpine and Primula Society, grows the sturdiest delphinium I have ever seen, and he tells me that they are grown in BLUE WHALE!"

Isn't it wonderful that there are more complements where these came from? They are all unsolicited and age all on file at the offices of the Acme Peat Company.



Yours for service,

The Blue Whale