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JOURNAL OF THE AMERICAN HORTICULTURAL SOCIETY

JANUARY, 1950

The American Horticultural Society

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CAMELLIA JAPONICA • LURIE'S FAVORITE

Hardy Herbaceous Ground Covers

STEPHEN F. HAMBLIN

These ground covers are to be used instead of grass to cover and hold the soil. They are not more than a foot tall, and are not to be cut by the lawn mower. These are plants hardy to frozen ground; for warmer regions there would be another list. These plants are sold by dealers as perennials, but such evergreen sorts as Thyme and Vinca are really shrubs. A list of true shrubs of low stature would be another subject for research.

This list is divided into two groups, those with evergreen foliage, as *Pachysandra*, and those frankly deciduous, as *Lily-of-the-valley*. Most of us prefer that our soil cover be evergreen to be on duty the year through, but in gardens for summer effect only, or where usually covered by deep snow the deciduous sorts are wholly satisfactory. The lists are again divided into "sun" and "shade," according to the usual preference of the plant. Some plants, as Thyme or Moss Phlox grow well only in fullest sun; they do not grow happily under the shade of trees or shrubs. Some of the shade lovers, as *Galax* and *Mitchella*, will grow in very dark places, as under Hemlocks or Norway Maple, while others, as *Pachysandra*, will grow also in much sun if there is some summer moisture. Or perhaps shade is but one of twin factors, as the "sun plants ask good drainage and the "shade" plants must have some moisture all summer. If the shaded area is also definitely dry in summer, some of the "sun" plants, as *Sedum sarmentosum* or *Aegopodium*, grow exceedingly well in shade, for the open lawn would be much more dry—too dry for even these persistent pests.

The only way to find out the best conditions for the growth of each of these, and the conditions of the limit of their endurance, is to try them out in your region under several different local soil conditions. Would that more gardeners would try out all of these and report their findings. This list could be made much longer by adding more names, but here is a beginner's list for our northern states. In each list the order of placing is approximately in degree of general usefulness, availability or general use, at least as I know them at present. Many other plants can be used often weedy by nature, especially in the deciduous group, as Yarrow or Bouncingbet, but these would not be used near the house; while *Mitchella*, *Pyrola* or *Chimaphila* are for woodland only.

HARDY HERBACEOUS GROUND COVERS

EVERGREEN

For full sun:

- Thymus serpyllum*—Mother-of-thyme
- Teucrium chamaedrys*—Chamaedrys
Germander
- Satureia montana*—Winter Savory
- Iberis sempervirens*—Evergreen
Candytuft
- Phlox subulata*—Moss Phlox
- Liriope spicata*—Creeping Lilyturf
- Sedum sarmentosum*—Stringy
Stonecrop
- Potentilla tridentata*—Wineleaf
Cinquefoil
- Dianthus plumarius*—Grass Pink
- Dianthus deltoides*—Maiden Pink
- Armeria maritima*—Common Thrift
- Veronica officinalis*—Drug Speedwell

For shade:

- Pachysandra terminalis*—Japanese Pachysandra
- Vinca minor*—Common Periwinkle
- Phlox stolonifera*—Creeping Phlox
- Galax aphylla*—Galax
- Shortia galacifolia*—Oconee-bells
- Mitchella repens*—Partridge-berry
- Gaultheria procumbens*—Checker-berry Wintergreen
- Asarum virginicum*—Virginia Wild-ginger
- Polystichum acrostichoides*—Christmas-fern
- Polypodium vulgare*—Common Polypody

DECIDUOUS

For full sun:

- Aegopodium podagraria*—Bishops Goutweed
- Coronilla varia*—Crown-vetch
- Coronilla
- Trifolium repens*—White Clover
- Gypsophila repens*—Creeping Gypsophila
- Pycnanthemum flexuosum*—Slender Mountain-mint
- Dennstaedtia punctilobula*—Hayscented-fern

For shade:

- Convallaria majalis*—Lily-of-the-valley
- Pachysandra procumbens*—Alleghany Pachysandra
- Ajuga reptans*—Carpet Bugle
- Mentha requienii*—Requien Mint
- Glechoma hederacea*—Gill-over-the-ground
- Lysimachia nummularia*—Moneywort
- Epimedium macranthum*—Longspur Epimedium
- Vancouveria hexandra*, etc.
- Asarum canadense*—Canada Wild-ginger
- Maianthemum canadense*—Canada Beadruby.

Now a bit of comment on some of the above.

Thyme, in its many species (and several named clones) is by far the best soil cover in full sun, be the soil even sandy and dry. This plant is a book in itself (See NATIONAL HORTICULTURAL MAGAZINE, October 1946). The forms of *T. serpyllum* usually are far too willing to grow and by creeping rooting stems and flying seeds take over wholly all the area in sun. In shade it is very sickly. As first choice, as crevice plants, the Woolly one (var. *lanuginosus*) or the tiny white-flowered form, var. *albus*. *T. Herba-barona*, *T. cimicinus*, or *T. lanicaulis*, etc., have different funny odors and are creepers of great vigor. In permanent clumps are Common Thyme (*T. vulgaris*) and *T. hiemalis* and *T. nitidus*, little erect shrubs like a tiny Cotoneaster. Most forms of Thyme are very efficient at their job of covering all the soil in sun.

Germander, the usual one with dark green leaves sharply toothed, is at least two forms or species, one taller than the other. Both have little odor (a rare character in a Mint) and they spread below ground by many matted roots. They can be kept in line as edgings, but their roots soon make large patches as plants.

Like the woody Thymes is Savory (*Satureia*, *Micromeria* and *Calamintha*). They have narrow evergreen leaves like to those of Iberis (but opposite), with whitish or pink clustered Mint flowers in late summer. Winter Savory is the most usual species, but the whole group is a large one, not well known. Thyme, Germander and Savory will thus represent the small evergreen Mints for sunny places.

Evergreen Candytuft is ideal as cover in sunny rocky places, with a sheet of white in May. There are dwarf forms, as compacta, Little Gem or

Snowflake, and related *I. tenoreana*, *I. semperflorens*, *I. saxatilis*, etc. I would like to have all these in adjacent beds, true to name, to see their differences and values.

The same observations for Moss Phlox and its kin. You don't have to grow only the magenta ones nor those that spread too rapidly by creeping stems or self-sown seeds. Try also *P. bifida*, *P. brittoni*, *P. lilacina*, *P. frondosa* and others that stay in tighter clumps than the usual Moss species. There is a long list of the dwarf evergreen Phlox species from our western mountains.

High on the list is Lilyturf, with glossy strap-like leaves and stoloniferous roots, like to *Convallaria*. There are pink *Muscari* spires in summer and black berries later. This is wholly hardy to deeply frozen ground. *L. muscari* and *L. graminifolia* I have not yet tried. The related *Ophiopogon* (Mondo), *M. japonicum* and *M. jaburan*, have wider leaves, but rarely survive deeply frozen ground. These two groups are evergreen relatives of *Convallaria* on a par with *Vinca* and *Pachysandra* as evergreen cover.

Sedums should not be mentioned in a high-brow essay, but at least a dozen species are evergreen cover for sunny spots, as *Sedum acre*, *S. sexangulare*, *S. album*, *S. stoloniferum*, etc. But the most pestiferous is Stringy, with running stems of alternate leaves and few yellow flowers. In sun or shade it takes over completely and smothers all its relatives.

On our mountainsides in moist acid soil in full sun our Wineleaf Cinquefoil is our best natural cover. In summer there will be little panicles of tiny white flowers, and winter foliage is wine-colored. The matted roots make dense sods so it is also a good soil

binder in steep places in the rock garden.

Many species of *Dianthus*, with their smaller Carnation foliage, are excellent for foliage alone, on sunny slopes. The usual big Pinks get leggy in the years, and require a close hair-cut. The dwarfier species, as Cheddar Pink, are better as cover in small areas. Maiden Pink spreads by runners as well as by seeds and is almost a pest. Keep it away from the usual collection of Pinks. When not in bloom its stems and foliage resemble those of Thyme, but there is no fragrance.

Thriffs have green tufts of foliage and pink heads of flowers. When the tufts get large they become dead in the middle and must be divided. Some *Veronicas* are evergreen and can be soil covers. The best evergreen foliage is on that weed established from Europe, Drug Speedwell, but the flowers are few and pale.

For evergreen cover in shade there are other plants as good as *Pachysandra*. My complaint is that it grows too well and is too dark in color. At times I like the variegated form, the white margins giving little highlight areas.

Our hardy *Vinca* has no real competition as cover for shade. I suggest the white flowers for the deep shade. The rosy flowers are little dabs of red meat; the doubles are not of picture value (double blue or rose). Bowles form has much larger blue flowers, more of them and for a longer season. The plants with yellow variegation (or white, which I do not have) give flecks of sunlight in darkest places, as under a Hemlock.

In bloom the Creeping Phlox looks like a blue or lavender sister of *P. divaricata*. In creeping stems it is like an evergreen Moneywort, while its central rosettes are entirely unlike Moss Phlox. There are two color

forms, a lavender and a blue white hybrids are *P. procumbens*, sold as *P. verna* and *P. amoena*. This species gives the most flowers of any evergreen shade cover.

For heavy evergreen leafage I make great use of our Galax. The clumps increase but slowly, so either a thick planting at start, or a wait of several years for a finished effect. But this is the best plant to stay in place of this list. In winter there is a great deal of bronze and red in this foliage. A small sister is *Shortia galacifolia*, widely grown for round evergreen leaves and white bells for flowers.

For detailed woodland scenes the best cover is Partridge berry. It can be moved any day of the year, to leafmold and a few waterings. Chiogenes and Linnaea are similar little creepers, but they require almost bog wetness. Our Checkerberry is truly a shrub, but it is mostly matted roots. Large sods can be moved easily any day of the year, even to full sun if the soil is acid humus. The related Chimaphila and Pyrola are not easily domesticated, nor do they make a close cover. Checkerberry is the best cover of the Heath family.

Our northern Wildginger is truly deciduous, but the species from Virginia and Oregon are truly evergreen and hardy. It takes a bit of time to grow them to large clumps, but they do not spread, so they keep exactly where put.

Several Ferns are evergreen and manageable. Christmas-fern will grow anywhere that there is leafmold and acid moisture. Though it stays in large clumps, these in time smother neighboring Violets and such small plants. Polypody will not grow on soil, but upon rocks or fallen logs. On transplanting this vegetable rug, water well for a season and expect a slow recovery.

The deciduous plants can have shorter comment. Chief of deciduous weeds is that small Parsnip that the goats ate or which cured gout. Usually the variegated form is most common. Either form is so persistent that only a bulldozer can remove it and its roots must be deeply buried in a fill to kill it. Crown-vetch has the many leaflets of other Vetches, a perennial Clover with rounded pink Clover-heads in a tangled mat a foot deep. Only removing all the soil will dispose of it. Little White Clover is my favorite field cover in place of grass, but it dies out in a year or so and grows permanently inside the tuft of some rare alpine. Creeping Baby's-breath grows from a central root, with little white or pink stars. Of the many small Pink family weeds (*Cerastium*, Chickweed, *Arenaria*, *Stellaria*, etc.) it is perhaps the best as an ornamental cover crop. Our native woodland Mountain-mints have a Thyme fragrance on slender *Monarda* plants, the little whorls of flowers white.

Many ferns are sun-lovers. Simply as cover I like large transplanted sods of Hayscented, for fragrance as well as foliage. It spreads mostly by roots, while the similar Lady-fern (*Athyrium filix-foemina*) spreads by spores also and is soon a plain pest.

For shade, Lily-of-the-valley is standard procedure. Darker in leaf is the pink form, the flowers of meat color. Fortune's Giant is much larger than type, and the rare double is of interest. A recent find is var. *striata*, the ribs of the leaf quite yellow—sunrays in the shade.

The Alleghany *Pachysandra* has large pale green leaves, and really showy flowers appear with the new unfolding leaves. Though offered by only a few dealers in native plants it is fully as worthy as its Japanese relative.

The dwarf Bugle is another Mint pest (no fragrance), like its relative, Selfheal. The central rosettes are mostly evergreen, but runners persist where they have rooted. The flowers can be pink or white, and there are rosy, bronzed, purple and variegated forms of foliage. The plant wilts badly in drought, but does not die. The smallest and most spicy of Mints is the little one from Corsica, not too hardy in zero soils. It is merely a thread or film of green with Peppermint flavor when stepped upon. The depressed Catnip is Gill-over-the-ground, a creeper with pinkish flowers and Catnip fragrance. Our forebears used it greatly—or rather it escaped from them. It is much less dense than Bugle and big weeds crowd into its bed.

Moneywort grows all over the ground and with the paired round leaves appear in June a pair of golden flowers of penny size. It is the best

cover to keep falling apples from the dirt of the soil. It was grandmother's next choice after Vinca.

Epimedium has Columbine foliage and little Barberry blossoms in all colors. This leafage is good all summer, and perhaps it is first choice of deciduous foliage and dainty flowers. Our Pacific *Vancouveria* (three species) has foliage even more divided and dainty little white, yellow or lavender flowers.

Throughout our Pine woods runs the little "wild Lily-of-the-valley" (*Maianthemum*) the little round leaves good all summer, the little white flowers ashine in little spires in May, the little red berries as food for birds in winter. It is our natural woodland ground-cover, but not too common to be transplanted at any time. The species from northern Asia and Alaska (*M. kamschaticum*) has much larger foliage but similar flowers. Lexington, Mass.

OUR FRONTISPIECE

In using a color plate in this issue of the magazine, it was the thought of the editor to make it an official greeting to the new members of the Society who have come to us from the American Camellia Society. It is a reproduction of one of the plates in Dr. Hume's famous book, and was chosen from among those that have not as yet been used in the yearbooks of the American Camellia Society. It is of interest to those members of our own Society who may not have seen Dr. Hume's book as well.

It is also of interest to us since the variety was originated by Mr. K. Sawada who belongs to both societies and has had an important share in the production of an interesting series of camellia clones, most of which are now named and many of which are beginning to be shown in local camellia

shows in various parts of the country. Whether or not it is known in the areas where camellias must be grown under glass is something that the editor has no way of knowing as yet. Perhaps some of our readers will know and write in?

In one way it represents also one of the preferences of the editor for the informal type of flower, rather than for the most symmetrical of the completely double types. Being a prejudiced person, the editor admits that he still finds greater pleasure in the nearly single flowers and each year when Lady Clare covers herself with her gorgeous blossoms in the Mississippi garden, she seems lovelier than the year before. When Lurie's Favorite is added to the collection, it may be that she will have a rival.

Shrubs From the Colorado Rockies I

KATHLEEN MARRIAGE

Contributions from the Rocky Mountains to gardens have been extensive and valuable chiefly in conifers and perennial flowers—Blue Spruce and Colorado Columbine are well known examples.

Native deciduous trees and shrubs are not plentiful in this region but there are some shrubs of definite value to gardens, shrubs which when better known will have wider appreciation. Two of these we would like to tell about:

Jamesia americana

Fendlera rupicola

Jamesia americana is a really choice shrub closely related to *Philadelphus*. Habit of growth varies with conditions. In the garden it may grow to four or five feet high having erect stems with enough twiggy laterals to give it a bushy appearance. In the wild it prefers to grow near or between huge rocks, often hanging by the toes from a narrow crevice, spreading out to make a choice decoration perhaps four feet wide and two feet high. On a very thin diet in the Rock Garden it retains this really valuable habit. Leaves are smallish, one to two inches long tapering towards the base, tomentose, deeply veined and they have a brilliant warm red-brown autumn color. Blooming season is from May to July according to altitude. Seeds are slow about ripening. Flowers are round topped clusters of small white flowers with enough pink on the outside of the tube to give a general pink-and-white effect. Its appeal is hard to define. The just right spacing of the flower heads above the well distributed foliage is probably part of it.

Propagation is by cuttings, layers

and seed. The plant is easy to grow and is fairly tolerant of unpleasant conditions but it prefers an extremely porous and poor soil. In rich garden soil it looks overfed and loses much of its charm.

Fendlera rupicola

For years we had been hearing about the beauty of this shrub from various friends who had gone for the Memorial Day trout fishing in the Gunnison country on the west slope of the Rockies. One friend brought me cuttings, another seeds, the former too dry, the latter too green. Last year at the end of May we set off determined to find it. Report said it grows in river valleys and here we looked and looked without success—except for the finding of other good things.

At last we spied it—lots of it waving its flowers gaily on a dry sage-brush hillside. No wonder the fishermen noticed it for its flowers are unusually lovely, pure white—four petals around a center well resembling the flowers of *Exochorda grandiflora*, good substance but not enough to keep them steady for a photograph on a windy hill.

In its native habitat here, and later we found it in the Black Canon of the Gunnison it has erect stems with sparse foliage, leaves filiform about an inch long, grey-green tomentose, in whorls with long internodes. Each stand that we found showed evidence of being browsed by deer resulting in a stubby topped appearance. Later we hope to know more about its garden preferences; given ample drainage it may benefit from a little fattening-up. In the wild it was too lean, leaves too small and too infrequent to make a well clothed shrub. Its hardness to extreme

*Kathleen Marriage**Jamesia americana*

cold and its lavish handsome flowers suggest future popularity.

In these days when all home owners are requesting plantings of easy inexpensive maintenance there will be more

garden effects produced with shrubs than ever before. Perhaps some of these less known species will add variety and interest.

Colorado Springs, Colorado

Ipheion Uniflorum

ALFRED BATE

To those of us who have loved the Spring Star-flower and known it as *Triteleia uniflora* or as *Brodiaea uniflora*—or even as *Milla uniflora* is will be as great a surprise as it was to me to learn that the two words which head this article form its authentic name. And they will be even more surprised to learn that it had at least four other names beside those listed above before it finally rested as *Ipheion uniflorum*.

Last year I started to write a plea for its use in northern gardens, for it is far more hardy than books would have us believe, and a protest against the habit of present-day bulb dealers sending out the blue form instead of the white which I considered to be the type. Then by accident I found it had been given an Award of Merit by the R. H. S. on April 6, 1948 under the corrected name. Being a "curious gardener" who wants to know about the plant's history as well as to grow it I started to trace down the synonymy. This was not hard to do as I soon found Mr. W. T. Stearn, in *The Gardeners' Chronicle*, p. 61, Aug. 14, 1943, had done practically all the work when he restored the correct name. What follows is a condensation of his article plus observations or insertions of my own; as I may be incorrect in some of my statements I am placing them in parentheses with my initials.

A complete listing of the names our plant has carried since its introduction is as follows:

Triteleia uniflora, Lindley 1830
Milla uniflora, Graham 1833
Ipheion uniflorum, Rafinesque 1837
Brodiaea uniflora, Engler 1887
Leucocoryne uniflora, Green 1890

Hookera uniflora, O. Kuntze 1891
Nothoscordum uniflorum, Hoover 1939 (tentative)

Beauverdia uniflora, Herter 1941.

Whatever else may be said about common names of plants in this case at least its name, Spring Star-flower, has remained constant and fixed throughout all the botanical turmoil.

The history of the plant including its various christenings is interesting. In 1830 material was sent from Mendoza in the Argentine to the botanist John Lindley who gave the plant its first name *Triteleia*, meaning three, complete—alluding to the perfect ternary arrangements of the parts of the flower, and *uniflora*, one blossom to a stem. (Evidently Lindley did not clearly define the genus which he had created or overlooked some points in his diagnosis or our plant would have rested secure under this most appropriate name. A.B.) Where Lindley published the name Stearn does not say; but Lindley later became editor of the *Botanical Register* and in 1837 published a color plate and full description, t.1931, in that magazine. In the meantime bulbs were sent to England again, this time from Buenos Aires, in 1832; and in 1833 Graham, unaware of Lindley's name, published a color plate and description in the *Botanical Magazine*, t.3327, under the name *Milla uniflora*—*Milla* being a genus created by the Botanist Cavanilles and named for J. Milla a gardener to the Spanish Court.

Our own botanist, the much maligned C. S. Rafinesque saw this plate and was quick to see that the plant did not fulfill the requirements of a *Milla*



J. Horace McFarland Co.

Spring Star-flower: Ipheion uniflorum

and gave it a new name, *Ipheion uniflorum*, in 1837 and therewith created a new genus. He brusquely explained

the name as "Asphodel antique" but Stearn says it cannot be found in Greek writers or in Greek lexicons.

(However Rafinesque was a genius and a law to himself, and while the scientists of his day ridiculed and hounded him for his supposed mis-statements as time passes he is being found to be more and more correct in his sharp observations and quick insight. And if I may hazard a guess, basing my surmise upon the mental short-cuts genius so often takes spurning the labored logic of more detailed explanation, Rafinesque may have meant he considered the flower so classically beautiful as to be compared with the asphodel of the antique Greek poets. A.B.)

No botanist paid any attention to Rafinesque's name and in 1887 Engler renamed the plant *Brodiaea uniflora* placing it in the genus Smith had created and named for the Scotch cryptogamist J. J. Brodie. As these three names are the only ones in common use we need not discuss the later ones.

Stearn points out that Dr. Robert F. Hoover, a Californian, in the Bulletin of the Torrey Botanical Club, 1939, excluded our plant from the genera *Triteleia* and *Brodiaea* as both these have corms as root stocks whereas our plant is definitely a bulb; and also as both these genera are confined to the western coastal region of United States and extending down into Lower California. (*Milla*, a genus of bulbous plants, is confined to the central strip of Mexico extending north into southern Arizona and New Mexico. A.B.) Hoover then tentatively suggested placing it in the genus *Nothoscordum*. This Stearn refuses as Rafinesque's name has priority and he then points out that the genus—*Ipheion*—is a definite group of bulbous plants of 9 or 10 species native to Uruguay and Argentina "and probably Chile." Therefore the Spring Star-flower must be known as *Ipheion uniflorum* and

pronounced either "if-ton or ifa-ion" of which I prefer the latter as with my small Greek I cannot understand how a *t* sound can creep in displacing two vowels.

So much for the name. Now just what is our plant's color in the type form? I think all who have grown it have considered it to be a milk white flower with a more or less pale blue or lavender flush at the edges and a median stripe of the same color—entirely milk white until old. Since the war I have tried to get this white form but every batch has been the blue or violet form even when I had specifically ordered the "type." And it was particularly annoying especially when I recalled that in the late twenties and early thirties when I was trying to get this dark form every order would turn out to be white.

I was therefore quite surprised and not a little chagrined to find that both the color plates referred to above (t.1921, Bot. Reg. and t.3327, Bot. Mag.) depicted a blue flower, a quite deep violet blue on a paler ground—in no sense could they be called "milk white" with a blue median stripe. The plate in the Bot. Mag. is a somewhat lighter blue but in no sense approaching white. And what was even more disconcerting was that the exteriors of the tepals and of the tube was strongly pigmented with green—I have never noticed more than a faint tinge of green on any of the flowers. I am inclined to think that the cooler damper weather of England may have intensified the green pigment just as a cool damp spring usually makes the double Von Zion daffodil greener.

A second and more careful reading of Stearn's article brought to notice a footnote which read, "The type has delicate bluish, starry flowers, but there exist white and porcelain-blue

forms and also forms with broader and narrower perianth-segments," and further on, "pink-white or rose-tinted flowers" exist. So that settles that; but I still want the white which I think is lovelier—and I do not even care to see the rose-tinted ones.

Its hardiness I can vouch for in northern New Jersey and in the area just north of New York City. It sends up foliage in early December, sometimes by mid-November—and that foliage does not seem to be injured by winter frosts or bitter cold even though the ends of the leaves may be damaged. It came through the very snow covered winter of '47-'48 and equally well through the very un-snow covered winter of '48-'49 and flowered just as heavily after each.

I hesitate to advise a heavy soil for my experiences have been with a quite sandy soil and with an open loam that was slightly clayey but well drained. It wants full sun or just a slight shade. My first bulbs were given me by an

old lady with the instruction to "plant them about two inches deep and four or five inches apart and to lift them at the end of the fourth year when you will find a mass of bulbs." As she was lifting hers I could see what a mass they had made—a band about three inches wide with bulbs so close together there was no soil visible between. After lifting they should be replanted almost at once as unless one knows how to dry them carefully they will deteriorate.

While delicate noses detect a rather garlic-like odor when the foliage has been bruised other delicate noses do not seem to mind it as they notice the faint and lovely fragrance of the flowers themselves. Pools and patches of it are always delightful but the best use would be as an edging to a long garden path where long stretches of both the white and the blue forms could be interspersed with drifts of crocus species, muscari of various kinds and little jonquils and daffodils.

New Jersey

Cascade Chrysanthemums

JOHN L. CREECH*

The cascade chrysanthemums are a group of overhanging, small flowered types of *Chrysanthemum morifolium* and *C. indicum* which in Japan are called mountain chrysanthemums, and in that country are displayed on posts or walls where their long, hanging stems may trail down with a multitude of blossoms. We have been familiar with cascade culture since around 1930 when plants were first displayed in both the United States and England. Quite interestingly, about the same time, two

agricultural explorers were visiting the Orient and went to the Botanical Garden at Seoul, Korea. There they saw a magnificent display of chrysanthemums, most impressive of which were the cascades—"in 12 inch pots about 16 inches deep and were of the drooping, trained sort."

While cascade chrysanthemums are not a type, but rather a method of training varieties with pliable stems that produce a large number of short flowering shoots, the Japanese have selected some twenty such varieties and in this country there are also a number named seedlings, such as Jane Harte

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Dorsett—U.S.D.A.

Cascade Chrysanthemums, Seoul, Korea

(yellow), Anna (white) Pink Cascade, Golden Pinwheel (a bronze spoon) and W. I. P. C. (yellow). These last two named varieties recently originated at Smith College, Northampton, Mass., by William I. P. Campbell¹. None of these varieties will cascade naturally, and if left to themselves, they will produce a number of long pliable stems that topple over in utter confusion.

The practice necessary to obtain a cascade plant consists mainly of a program of pinching and tying down of the many shoots that are produced. Cuttings are taken between January and April, early cuttings producing the largest plants. When the rooted cuttings are potted and grown to six inches, the tip of the shoot is removed to induce a number of lateral breaks of which one to three are selected to be the leaders of the hanging branches; all

other shoots are pinched back and never allowed to grow or compete with the desired leaders. When only one main shoot is kept, a considerably longer cascade will be obtained, while working with three leaders will produce a short, broader plant.

To control the growth of the leaders, steel stakes are inserted into the pot at a 45° angle and each leader is tied to a stake with raffia or a similar material. As the stem grows it is continually tied to the stake and all new shoots which now will appear in the axils of the leaves are pinched back to two or three leaves. These shoots will also break and as each new shoot grows it again is stopped back to two or three leaves. This pinching and tying should be done at least twice each week until September. Bamboo stakes may also be used but are not as satisfactory as steel which can easily be bent slightly each week until the plants are growing in a horizontal plane.

¹Campbell, W. I. P. The Cascade Chrysanthemum. Parks & Recreation. Vol. 31, pp. 593-596. 1948.

*J. L. C.**"Anna"**"W.I.P.C."*

The pots must eventually be raised to a high enough platform or hanging bench to allow the stems to hang down. The steel stakes can be replaced with a strip of chicken wire which is hung at the pot level and in length as long as the plant may grow, probably six feet. The stems are all tied to the wire

in a more-or-less fan shape so that every stem is pinned down. Here, the ties called "Twist-em" are very handy. If one desires, the cascade can be grown by using the stakes throughout the entire program. This results in a cascade that is not so flat as one grown on wire.



J. L. C.

"Golden Pinwheel"

When September arrives, pinching should be discontinued at the basal part of the plant first, while the pinching is

continued for another two weeks toward the terminal or lower part of the plant. The wire may now be removed

and the plants allowed to hang free. When hanging the plant, it should be cautioned that the stem may snap and should this happen, the stem may be bound at the wound with raffia. This occurred with my plants when moving one of the pots and a raffia binding spliced the stem together so that the wound completely healed.

Any chrysanthemum grown in a pot requires frequent repotting which should be very firm to produce short-noded stems; this is true of the cascade types. Watering is especially important and the plants need more attention

in this particular than if they were grown in a bench. Full sunlight is necessary when in the hanging position, and the plants should face the south to prevent the flowers from twisting about on the stems.

While cascades are still exhibition varieties, it is possible that we might find a place for them in our outdoor gardens against walls and fences. This is particularly so in the south when there is less danger of early frosts. First, however, we must learn patience and the willingness to give the plants the individual attention they require.

Rhododendron Notes

CLEMENT G. BOWERS, *Editor*

Notes on Old Varieties of Indian Azaleas, 1950

In working with old varieties of "Indian Azaleas" one often wishes he had access to the records of the men who produced them, but it is not without interest to examine them, or such as can be found, and make one's own conjectures as to their parentages. One recalls that in that early period when the first great enthusiasm began, "collections" were reputedly made up of varieties that we should now call forms of *Rhododendron indicum* (the *Azalea macrantha* of gardens). How many such there were or how wide the variations they presented is difficult to estimate, since early varietal lists of azaleas often do no more than cite the flower color, and usually there is no way to tell which were scarlet reds and which were rose reds with their subsidiary colors toward orange and pink, nor their categories. Historically we believe that there was a striped sort and another of rose color with a white base to the corolla, but whether or not there

was a pure white or double forms is not recorded though these are known from later records.

The snow azalea (*R. mucronatum*) was known early but whether or not its lavender form was in cultivation, even if not properly recognized as such, is doubtful. *R. Kaempferi*, too, came early on the scene.

The less well known *R. phoeniceum* was certainly there and finally *R. Simsii* which all agree turned the tide of azalea production from plants for the cold greenhouse to plants for gentle winter forcing, with not much interest in plants for outdoor use since azaleas of this group do not really flourish in the lukewarm climates of Europe.

Various conjectures have been made as to how these several species ceased to play a part in the general development of the mongrel race that was first known as the "Indian Azaleas" and in its latest forms is currently known as "Belgian," although the gap between these two groups is great enough, when one looks at the latter and compares

them with the far from uniform varieties surviving from the earlier group, and even more so when one compares them with their putative ancestors.

If, however, after having raised many thousands of hybrid seedlings and having arrived at various working and, for the most part, satisfactory hypotheses, one ventures to suggest the species that dominate in the older "Indian Azaleas," it may seem foolhardy, but it may also serve as a point for critical study by other workers. No suggestion is offered at this time concerning the "Belgian" azaleas as they now appear although certain guesses seem likely to become working hypotheses.

What follows, therefore, must be considered as no more than data to serve as a point of departure, useful for the time being but still open to correction.

The plants examined have come from nurseries only and were accepted and recorded as received with no attempt at critical examination as to nomenclature, though certain names suggest local origins and some names are obviously misspelled with the years of label writing in this country. If, therefore, it is reported that certain clones appear to be identical, this may be true or there may have been mistakes in filling the original orders.

From the plant breeder's point of view, the following clones may be considered as either variants within the species now known as *R. indicum* L. or hybrids in which that species is completely or almost completely dominant, the alterations showing chiefly in the number of stamens (not a completely dependable character) and in some of the color patterns. Alba punctata, Brilliant, Coccinea major, Duc de Rohan, Iveryana, Marie Louise, Miltoni, Mme. Margottin, Pluto, "Salmon Pink."

Of the forgoing series, alba punctata, Iveryana and Mme. Margottin, the first and last much alike, are whites with slight flaking of color. Whether these are seedling variants of the species, hybrids between the species and the striped form (Wilson and Rehder, Azaleas, A Monograph of page 26) or sports, is a question. Of these three, only Iveryana as known to the writer has given self-colored sports, the color approaching that of the stripes. This self-colored sport, which is constant, does not resemble any known seedling of the species in the writer's experience. If the "striped variety" cited above was not in fact a variety but an unknown hybrid, the chances are excellent that the clone that produces the striping is the plant known in trade as "vittata Fortunei," assigned by Wilson as a variety of *R. Simsii*. The writer is not fully convinced that that assignment is correct, but he has no other suggestion to offer at this time and lets it stand.

Of the remainder, Brilliant, coccinea major, Duc de Rohan, Marie Louise, Miltoni, Pluto and "Salmon Pink" may well be considered as seedling variations of the species itself, suspicion falling only on Pluto and Miltoni, this last possibly belonging in the group of seedlings from *Simsii* \times *indicum* in which *Simsii* is dominant and Pluto in the same group but with *indicum* dominant.

To a possible ancestry of *indicum* \times *Simsii* in which *indicum* dominates: Anthenon, Charles Encke, Criterion, Duke of Wellington, Glory of Sunninghill, Pres. Claeys (not Pres. Clay as often given) and Pride of Dorking. Of these, Anthenon, Charles Encke, and Criterion are probably sports from the striped *indicum* ancestry, no matter what the name of the clone.

To a possible ancestry of *Simsii* \times

indicum in which one finds *Simsii* the dominant element, one finds: Cavendishii (Lady Cavendish), George Franc, Perfection de Rentz, Prince of Orange, Triomphe de Ledeborg, and Zeke's Pride, with some likelihood that George Franc, Zeke's Pride and Triomphe de Ledeborg represent some back cross in the same blood line. These three come closer to modern "Belgian" azaleas in flower form and quality than any other of the old clones known to the writer except Harry Veitch, although there are marked differences in foliage and in bush habit.

Although a further study of seedling populations of *R. Simsii* from seed recently imported from China may alter the opinion, the writer is tempted to look upon Dixie, Eulalie van Geert and the clone offered under the name of "Reddish Salmon purple throat" as seedling variants of *R. Simsii* itself. Accepting for the present Wilson's dictum, the clones sold as "Vittata Fortunei" and "Vittata Purple" should go here.

The plant sold in the trade as "indica alba," properly *R. mucronatum* G. Don, probably gave rise to "alba maculata" and was the parent of Fielder's White that varies chiefly from it in the excellence of the flower form, a slightly later blooming habit, more tolerance of longer summers, and a slight alteration in foliage characters. From it with some plant probably of *R. indicum* blood could have come Mme. Dominique Vervaene and from it with *Simsii* blood could have come elegans (Pride of Summerville and apparently Croemina) and also "Early Lavender."

Another group that stemmed from *R. phoeniceum* . . . we have the selection Omurasaki, the reputed sport G. L. Taber and the hybrids: Formosa, Praestantissima, Pride of Mobile, Vi-comte de Nieuport, Violacea and pos-

sibly the double William Bull.

No suggestions are made at this writing for the fine double white Flag of Truce though one suspects *Simsii* × *indicum* or for Harry Veitch which appears to be one generation beyond such clones as George Franc in the direction of the modern Belgians.

A few varieties have not been purchased as yet and a few varieties have died out so that another survey must be undertaken of the balance in trade. A few others have not been in flower at times when the writer could make observations, but their late blooming habits make one believe that in them *indicum* may well be the dominant factor.

The varietal descriptions that follow were all taken at Pass Christian, Miss. between January 27 and February 10, 1950, an unusually advanced season, and do not cover the entire collection, many varieties being still in bud there as of February 10, e.g. Harry Veitch, William Bull, Venus, Flag of Truce, etc. In time they will be supplemented with notes on some of the remaining varieties from the writer's old garden in Takoma Park, Md. survivors of a duplicate collection. There remain in trade in southern nurseries a few other named clones of 'Indian Azaleas' that must in time be grown and examined in a similar fashion.

The writer realizes that there are various possibilities of error but at present it is not possible to undertake the collecting of all named clones from all nurseries to verify trade identities. Whenever it has been possible to find old descriptions in Vol. I of the *Tuinbouw Encyclopedie* published in Amsterdam in 1938, they have been used as a check, but not all of our plants are listed there and one wonders about such names as Dixie and Zeke's Pride that appear to be of local origin.

For many years there has been incomplete information on the cold-hardiness in this group but enough time has passed to show that most of them are much more cold resistant than had been believed possible. These forms that seem closest to *R. indicum* seem most cold hardy, with the *mucronatum*, *Simsii* and *phoeniceum* derivatives in descending scale. As could be imagined the plants do not grow as luxuriantly in northern states as further south, though they are definitely in health. It is probable also that their ultimate height will be less.

Some of the clones are azaleas of only second rate quality, if one compares them to the best within their own group and many are now even less valuable than other azaleas in other groups. At present, however, they are and must remain the central core of any plantings in the South.

For the gardener working within the area where the Glenn Dale azaleas will become the mainstay of the planting it is hoped that we can eventually give names of Glenn Dales that will duplicate the effects, even if the details are distinct. For example, the Glenn Dale variety Robinhood will give precisely the same garden picture that the southern gardener will get from Vicomte de Nieuport, Sprite will answer for Early Lavender, Louise Dowdle for Elegans and so on. Data for these comparisons are more difficult to collect now since most of the Glenn Dale clones are still such small plants that they do not, cannot give mass effects for comparison.

alba maculata. Rather loose straggling bush habit as yet, leaves possibly not as hairy as those of *R. mucronatum* of which it appears to be a derivative possibly a direct seedling. 1-3 flowers in head, starry, faint green blotch, 10 stamens, long style. No color flakes as yet to justify the name 'maculata.' Hardy in Washington, D. C.

alba punctata. Rather low spreading habit, leaves small, dark green, modified *indicum* type. Flowers, 1-2 in head, white with occasional flake or stripe of magenta (between Mallow Purple and Rhodamine Purple), 5 stamens.

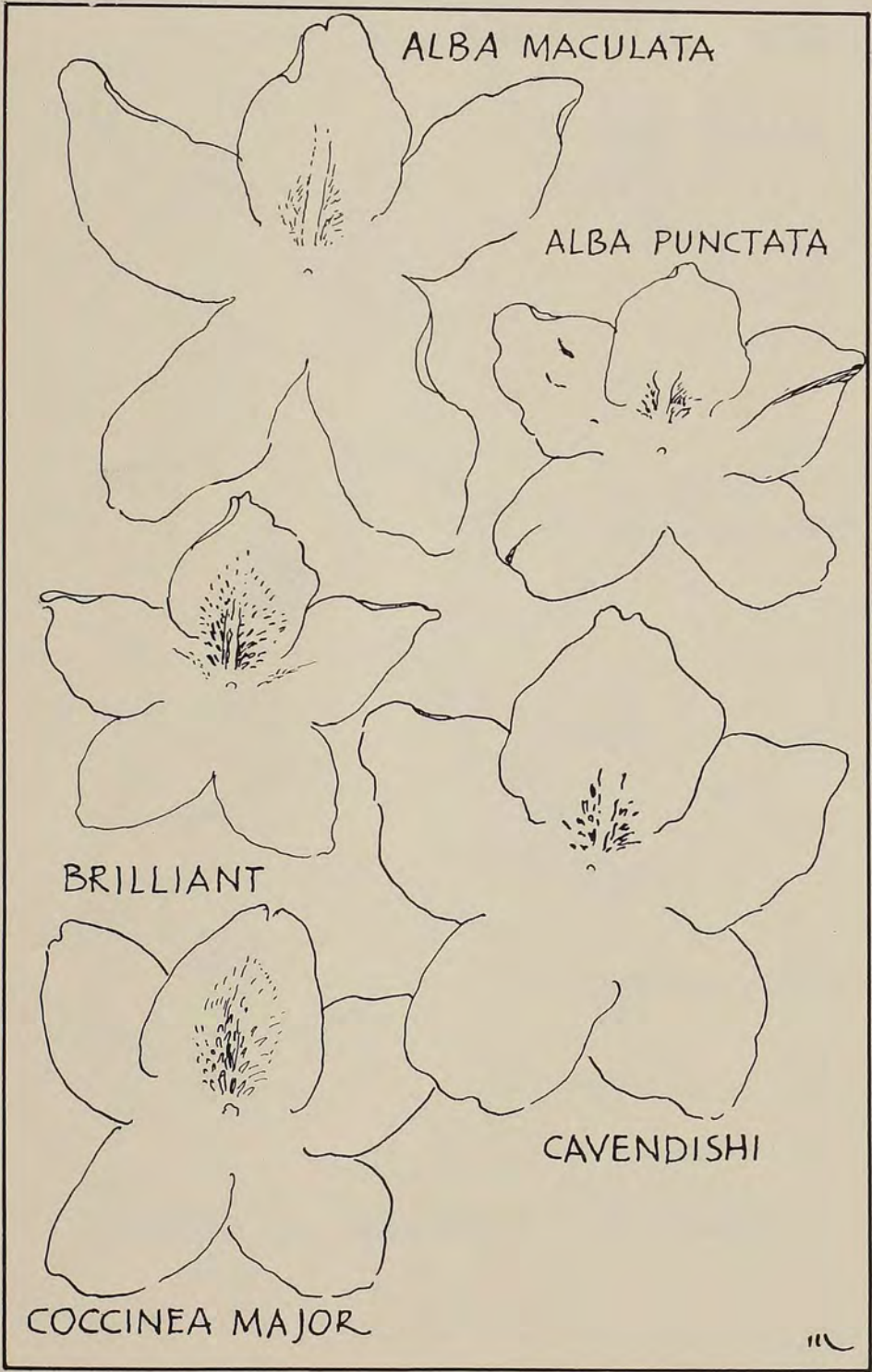
Brilliant. Rather low spreading habit suggesting *R. indicum* with foliage of the same character. Flowers, however, 2-3 in head, and early as compared with others of type. Rose Color with dots of blotch, Tyrian Rose. 5 stamens.

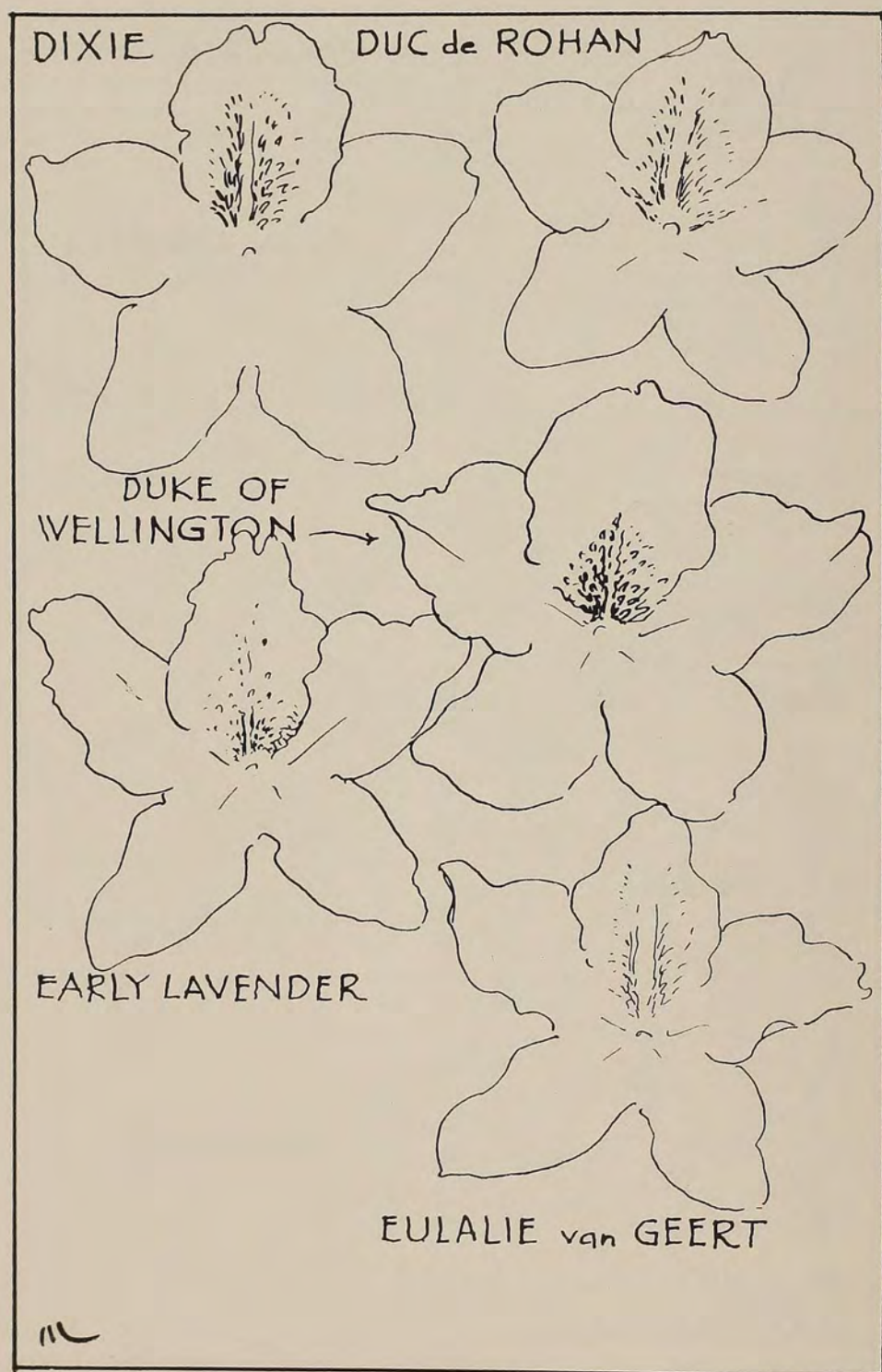
Cavendishii (Lady Cavendish). Bush habit spreading rather than erect. Leaves modified *R. indicum* type. Flowers 1-2 in head, irregular in early blooming coming into mass later, of heavy substance, a little paler than La France Pink, the few dots of the blotch, Tyrian Rose. Pistil pale rose color, filaments of the 5 stamens, white. Somewhat variable in color from plant to plant, perhaps due to propagation from sport-branches.

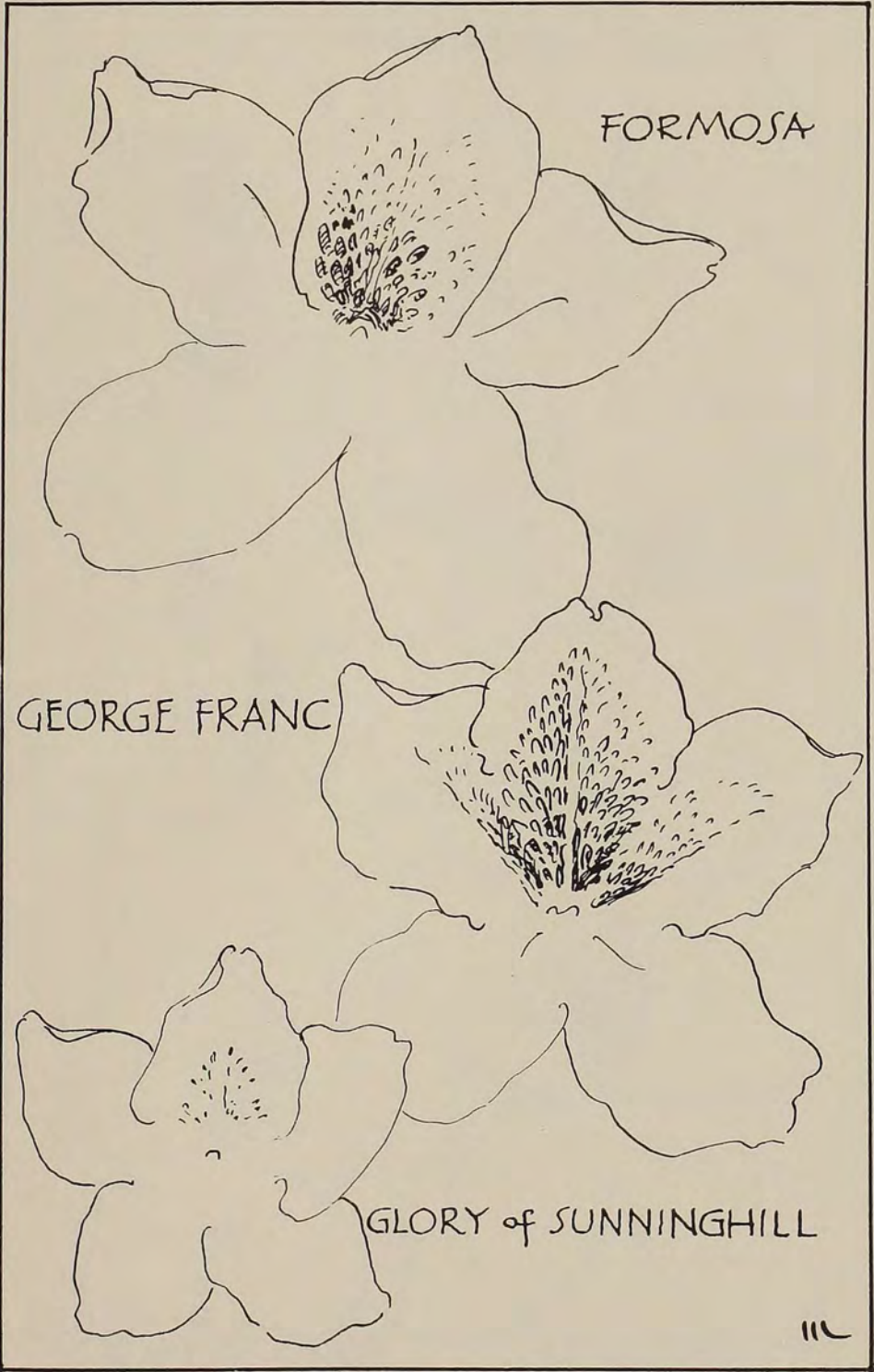
coccinea major. Bush habit spreading of *R. indicum* type. Foliage dark green and very persistent. Flowers 1-2 in head, freely produced to make a brilliant show, Scarlet Red, the dots in blotch only a trifle darker and not conspicuous. Stamens 5, pistil often deformed, not much evidence of natural seed formation. Lasts about a month in flower and almost no sunburning.

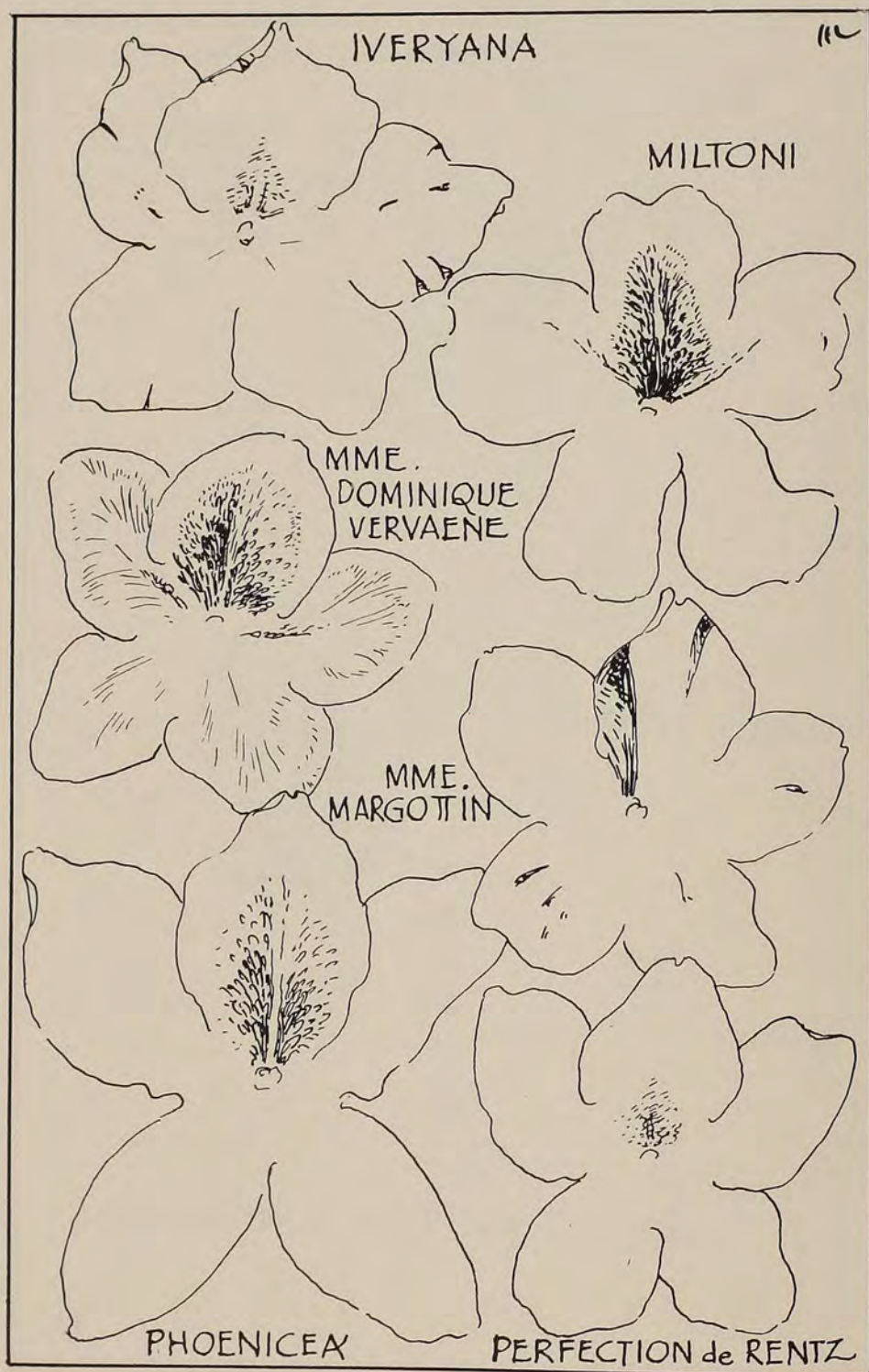
Dixie. Although the plant is still young, this suggests in all bush habit and characters, a direct seedling of *R. Simsii*. Very floriferous, carrying in gardens as orange salmon, darker than Eulalie van Geert but of the same color sequence. Flowers 2-3 in head, Rose Doree with suffused blotch of Tyrian Rose. 10 stamens.

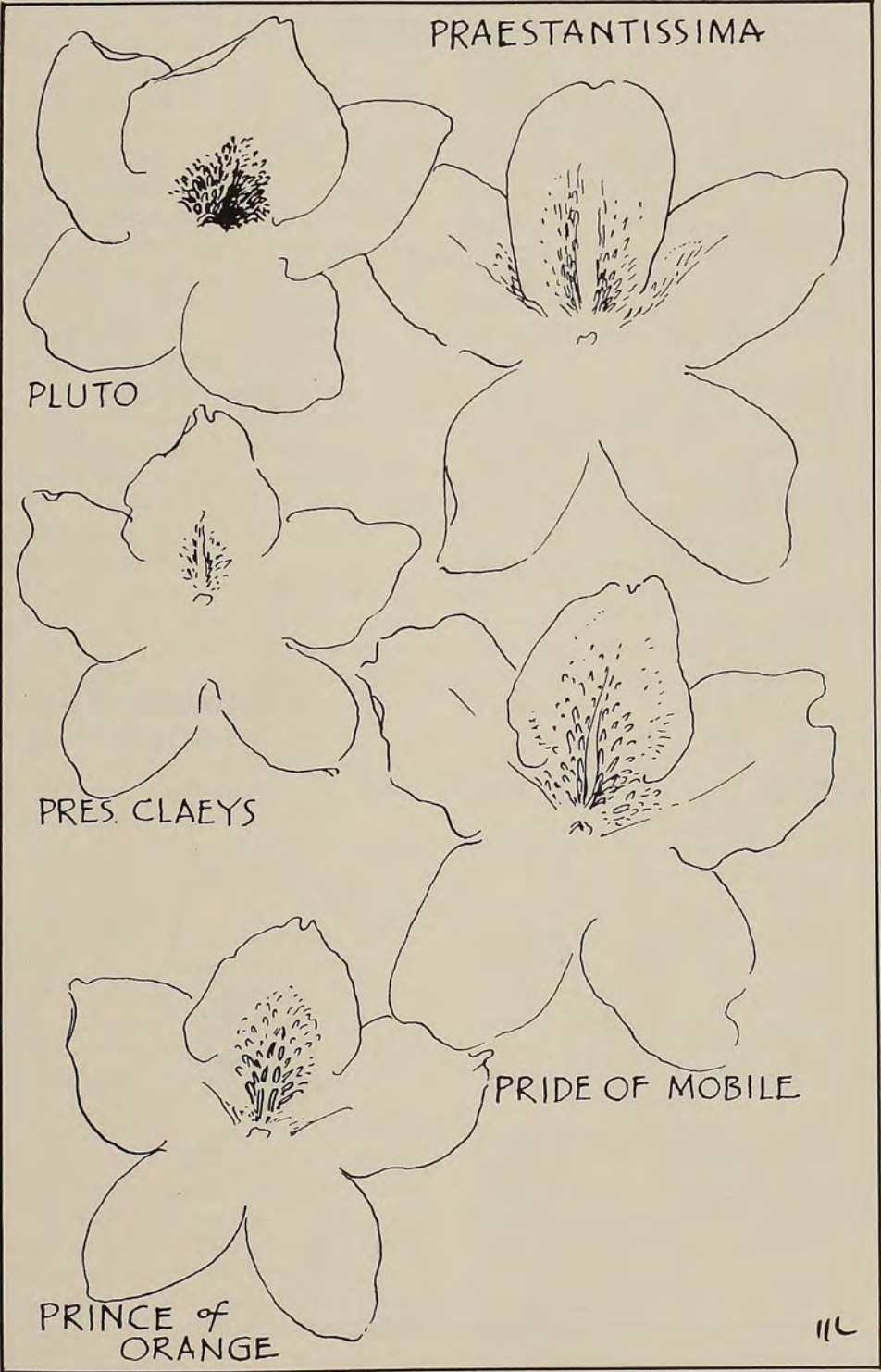
Duc de Rohan. Bush habit spreading rather than erect, and of *R. indicum* type. Early flowering for this type, with general effect of a lively pink.

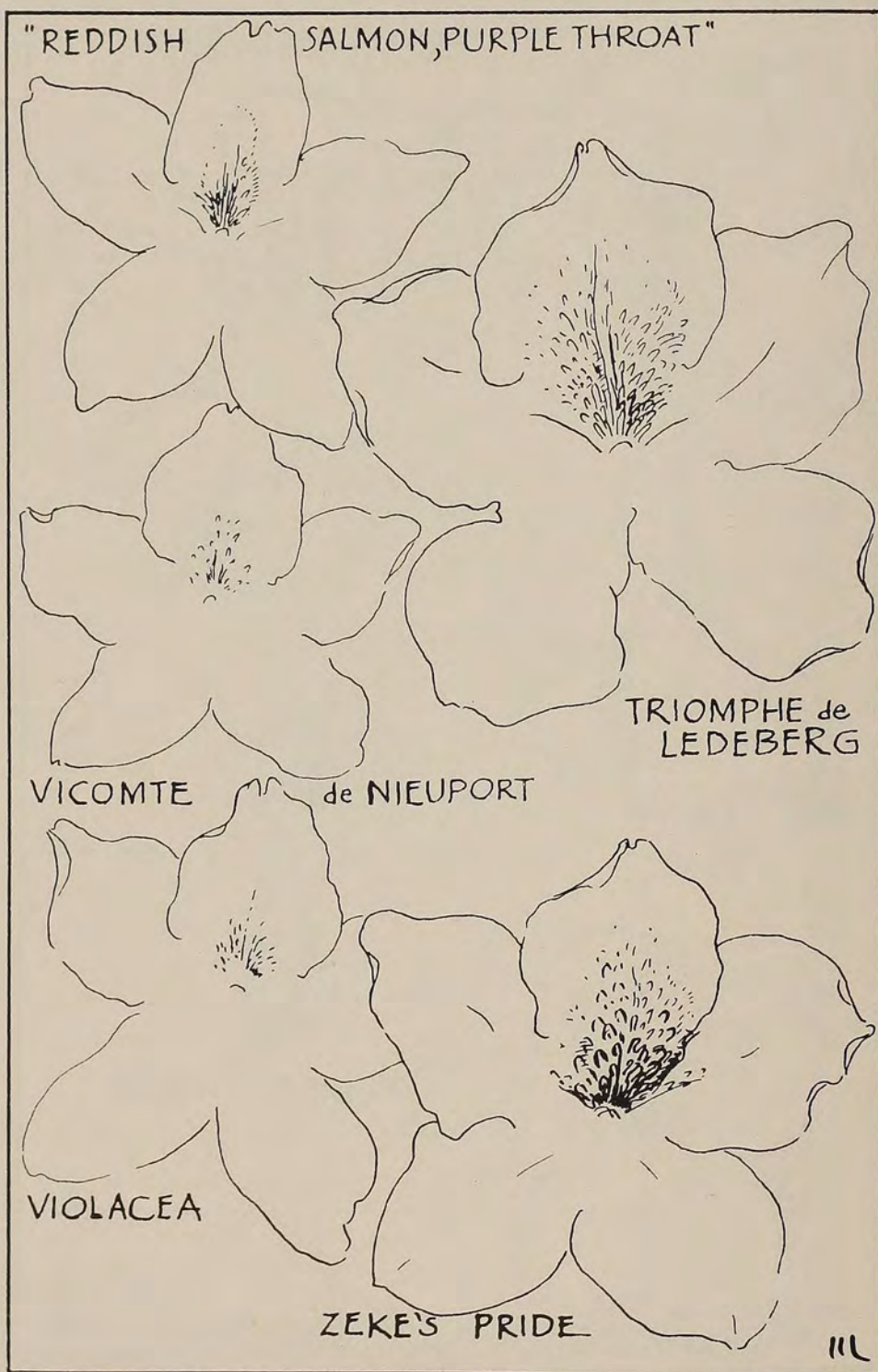












Flowers 1-3 in heads, Begonia Rose with dots of blotch Tyrian Rose but not showy. 8 stamens.

Duke of Wellington. Bush habit spreading rather than tall, but with some modification of the *R. indicum* habit. Foliage similar to that of *indicum* and persistent. Flowers 1-2 in head, good substance, but some sunburning. Begonia Rose with blotch of Tyrian Rose dots. 10 stamens.

Early Lavender. Even earlier than Elegans in flowering in 1950 (an early season) being almost out of bloom by January 29. Rose Purple of color chart but garden effect is pinkish lavender. General habit of *R. mucronatum* seedlings, flowers 1-3 in head, very freely produced, 8-10 stamens. Hardy in Washington, D. C.

Eulalie van Geert. Like Dixie, the whole habit of bush suggests a direct seedling of *R. Simsii*. Carries in garden effect as pale salmon pink, color chart Geranium Pink. There is a little fading of color as flower ages. Flowers 2-3 in head, freely produced and lasting long in bloom. 10 stamens. Hardy in Washington, D. C.

Formosa. Very large and vigorous shrub usually a little broader than tall but tall enough in time. Foliage heavy and persistent, leaves large and coarse; flowers 1-3 in heads, very freely produced, Mallow Purple of the color chart, the dots of blotch Tyrian Red, but effective only as warming the color of the whole flower. Stamens 8-10, short filaments.

George Franc. Bush habit broader than tall but of fair size in time. Foliage heavy and persistent but not as much so as that of Formosa. Flowers 1-3 in heads, freely produced, early, in garden effect carries as a lively rose color; color chart, Deep Rose Pink with undertone of Strawberry Pink (yellowish) that fades out as flower ages,

blotch large and showy, of Tyrian Rose dots. 10 stamens. Hardy in Washington, D. C.

Glory of Sunninghill. Bush habit broad rather than tall, but apparently will make a taller bush in time than *coccinea major*. Leaves dark green, modified *indicum* type, very persistent. Flowers 2-3 in heads, freely produced but slow to make mass effect. Spectrum Red; there are a few darker dots in the not very conspicuous blotch. 5-8 stamens.

Iveryana. Bush habit broader than tall but eventually good height. Leaves much like those of *R. indicum*, but somewhat modified. Persistent. Flowers 1-2 in heads, freely produced. Pure white with a faint suggestion of a chartreuse blotch and occasional flakes of Spinel Pink. 5 stamens. Branch sports of Spinel Pink or slightly darker self-colored flowers. One sometimes buys a bush that turns out to be of the latter type which only means that the cutting came from a branch sport. There are no reversions to the striped forms on record. Hardy in Washington, D. C.

Milioni. Bush habit broader than tall, compact. Leaves modified *indicum* type. Flowers 1-2 in head, freely produced, petal lobes poorly shaped (see drawing page —), Deep Rose Pink, with definite blotch of Tyrian Rose dots. 7-10 stamens. Hardy but not happy in Washington, D. C.

Mme. Dominique Vervaeke. General bush habit like that of *R. mucronatum*; foliage somewhat similar to that of that species but often smaller in general dimensions. Flowers 1-2 in heads, of very fine form, ground color white almost entirely overlaid save on margins, with La France Pink. The very conspicuous blotch is of small dots of Tyrian Rose to darker. 7 stamens. Hardy and good at Washington, D. C. with winter killing of flower buds only

when that occurs with *R. mucronatum* itself, which is rarely.

Mme. Margottin. Bush habit broader than tall. Foliage of a modified *R. indicum* type, moderately persistent. Flowers 1-2 in heads, good form, rather close to those of *alba punctata* except that the occasional stripes and flakes in this case are of light Rosolane Purple. 7 stamens.

Perfection de Rentz. Bush habit broader than tall, dense and twiggy. Foliage like that of *R. indicum* but with more rounded leaf tips. Flowers 1-2 in heads, white with pale chartreuse blotch. Very good form and substance, usually 6 stamens. Hardy at Washington, D. C. The name probably should be *Perfection*, as de Rentz was a breeder and grower in Belgium.

Phoenicea. Vigorous bush almost as broad as tall, of general branching habit of *R. mucronatum* style but with leaves less hairy and hanging in a curious manner that seems very characteristic. Flowers 2-3 in heads, very freely produced and making as much of a show as those of *Formosa*. General landscape effect almost identical and equally difficult. Rhodamine Purple with blotch of Tyrian Rose dots. Fragrant, mid-season. 10 stamens, short filaments. Barely hardy in Washington, D. C. It would seem that there may be several clones in cultivation under this name, varying slightly in intensity in color. Presumably this is *R. phoeniceum*, a species about which Wilson had some doubts. *Omurasaki* is assigned to this species as a variety. It is distinct and hardy in Washington, D. C.

Pluto. Bush habit broad spreading rather than erect, densely twiggy with excellent persistent foliage of *indicum* type. Flowers 1-2 in head, freely produced, a few stray flowers often appearing early before main mass. Excellent form and substance, Scarlet Red

with small blotch of Carmine dots. 10 stamens. Hardy in Washington, D. C. but flower buds kill in severe winters.

Praestantissima. Bush habit vigorous, probably making in time plants as large as those of *Formosa*. Leaves broader than many, persistent. Flowers 2-3 in heads, freely produced, late mid-season, good substance but not attractive form, almost Tyrian Rose in color with an inconspicuous blotch of Amaranth Purple dots. 5 stamens, short filaments. A difficult color in gardens.

Pres. Clays. Usually offered as *Pres. Clay*, a name for which no authority is found. The variety as now grown does not conform to the original description but is probably a self-colored sport from the original white margined flower. Bush habit broader than tall but not really spreading. Modified *Simsii* habit. Flowers 2-3 in head, freely produced. Between *Begonia Rose* and *Spectrum Red*. 8-10 stamens.

Pride of Mobile. In general bush habit much like *Praestantissima*. Flowers usually 2-3 in heads, heads often grouped. Good substance, in color between Deep Rose Pink and Rose Color, the dots of blotch, Pomegranate Purple (which is a brownish purple) usually 9 stamens. One of the standard varieties for bold not subtle midseason effects in South.

Prince of Orange. At least during the earlier years, bush habit much more spreading than erect, and flower masses often hidden by the younger overtopping shoots. Foliage dark green, somewhat like that of *Formosa* but smaller. Flowers 2-3 in heads, of good form and substance, Nopal Red, with an inconspicuous blotch of Carmine dots. 5 stamens. Late, no fading color.

"Reddish Salmon, Purple Throat" Habit very much like that of *R. Simsii*. Very floriferous, 2-3 flowers in head, a little darker than *Begonia Rose* with a

rather suffused blotch of Tyrian Rose dots. Some sun burning. 8-10 stamens.

Triomphe de Ledeborg. Bush more spreading than tall with heavy dark green persistent foliage. Flowering branches usually overtopped by younger shoots. Flowering intermittent over a long period. Flowers 1-2 in heads, large, very fine substance, carrying in garden effect as pure orange but actually Begonia Rose with a blotch of Tyrian Rose dots that accentuate the 'orange' effect, 8-10 stamens. The clone grown here is not that described in the Tuinbouw Encyclopedie.

Vicomte de Nieuport. Vigorous bush, erect rather than spreading with excellent persistent foliage. A few stray flowers before the main bloom period which is mid-season. Flowers 2-3 in

head, between Mallow Purple and Rhodamine Purple of color chart with a very few inconspicuous darker dots in the blotch area. 8-10 stamens.

Violacea. Vigorous bush, erect rather than wide-spreading with dark green persistent foliage. Late mid-season. Flowers 2-3 in heads, Rhodamine Purple, blotch inconspicuous, 7-8 stamens.

Zeke's Pride. Vigorous bush, erect rather than wide-spreading, with abundant medium green persistent foliage. Flowers 2-3 in head, heads often grouped, Geranium Pink shaded Rose Doree with showy blotch of Tyrian Rose dots. Some sunburning as flowers age, but less than in George Franc. 10 stamens.

Washington, D. C.

B. Y. MORRISON.

A Book or Two

Gardens of China. Osvald Sirén. The Ronald Press, New York, 1949.

Illustrated in color and black and white. \$30.00.

The editor is honored to depart from the usual type of book review and prints his appreciation of Dr. Dye's willingness to take time to write for us in the midst of his own writing program and to Mr. Harkness our thanks for sharing his interest in China. The editor also has been in China, visited long ago, and with a younger fresher eye than now, but he still recalls much of it and takes only a short look in the sketch note books of the period to bring it all back, even to the smells of the stagnant pools and moats and the curious odors that identify all lands for all peoples. But he reacts now, as then, and hopes with all his heart that our designers and architects and landscape

architects will not embrace Chinese gardens as such, but look only for the essence, that essential inner something that China inherited from India, touched with her own hand and modified with a later fragile patina of worldliness. (Dr. Dye says much of this but the editor feels in too kindly a fashion.) His advice would be to borrow the book first from your library, examine the horrible examples of what China did with our art expression and then beware unless you are prepared for a longer discipline than is acceptable to most moderns.

The pictures are from Mr. Harkness to whom again, we offer our thanks.

Our advice is to buy the book when you can get the necessary money. I did myself, so do not feel that I am leaning on editorial privilege. In closing, my apologies to Dr. Dye and Mr.

Harkness for having written a preamble.

I.—*A Review.* Daniel Sheets Dye, Professor Emeritus, West China Union University.

The senior reviewer had the real privilege in 1944-1945, of introducing the junior reviewer to gardens and gardens—once—removed of Chengtu, West China and its environs. The two-man team saw many-fold more than either alone, for their fields are complementary. As soon as *Gardens of China* was advertised, the junior reviewer suggested that we combine to pay our respects to this masterly work.

The world of art and of gardening must walk around by the study door of that indefatigable traveller, photographer, collector and student—Osvald Siren. Here is the work that will be definitive for a generation, probably. The student of things Chinese must consult this work of erudition. The lover of the beautiful should go over this work carefully with a judicial eye. The creative architect cannot afford to ignore such a rare assemblage. The “master carpenter” will do well to study the architectural ornament with an appraising eye. The landscape gardener will revel in the illustrations. The rock-gardener will find it a tool or an inspiration—depending upon his or her natural and cultivated endowment. Furthermore, here is a book that should be a challenge and an inspiration to a whole team of research workers who can organize and then create and bring to being another volume, which will be a “casual book” that places the Chinese garden in its “cosmical” and historic setting.

Now that we have praised this as a great book and have sincerely advised that you buy the book if you can square your pocketbook with your conscience, we go on to say that it is not

the super-book that we were expecting of the distinguished author. Why were we not one hundred ten percent thrilled and slightly less than one hundred percent satisfied? We were expecting too much of one man.

We make bold to suggest that in the next edition the following suggestions be considered and evaluated and then revision be made. . . .

a. The volume would be much more functional if it were divided into two, with the letterpress in Volume I and the illustrations in Volume II. Then the worker could place the volumes side by side and “look-see” again and again as he reads.

b. As a tool, it would be more convenient if the drawings and cuts were numbered from 1 to 90, to be followed by the colored pages from 91 to 100, and then to be concluded by the plates numbered from 101 on. (How many hours through the years have been wasted looking up illy-numbered and interlarded letterpress, cuts and plates!)

c. References to plates in the letterpress should come early on in the paragraph rather than holding up the reader for forty-three lines before permitting him to see what he is reading about—for gardens are to be seen before they are to be described effectively—to most people. (The 43 lines is an average count for several “suspensions.”)

d. One reader would like the plates entitled: Palace (Temple, or Residence), Place, Translation of Name. Then a sheet with the number of the plates and the Chinese characters could be printed at the back of the volume for those who actually desire to see the characters. (These can be written by a good writer and reproduced photographically rather than attempt intercalating Chinese type which is not always a success—on American presses.) Wade Romanization might follow the



Bernard Harkness

The Gothic green arch of Bamboo transforms narrow city alley to a path to enjoy

characters for those who desire such; especially for some buildings.

e. There should be running comments upon each plate—added to the letterpress volume where it would not detract from the dignity of the plate—for many things escape those unfamiliar with the Chinese scene.

f. It would be well to have a botanist check on some of the plants before a new edition comes out. (Cf. Plate 114 reveals no wisteria to this viewer but there is a very prominent “Seven League Odor” rose against the wall.)

g. There should be an inclusion of Symmetric Gardens as well as Asymmetric Gardens for these have found a place in the philosophy and practice of the Chinese garden art.

h. The English postoffice spellings as used by the Chinese for place names should be used since the book is in English, and should not follow the Wade or other system.

i. In spite of the fact that it is well-nigh impossible to avoid all mistakes, it does seem as though there is no excuse for using “icicle” for ice ray or



Bernard Harkness

"The Crape Myrtle is a cousin of the Pride of India, and is beautiful with its pink bloom. This tree is 150 years old; its mate, 250."

ice crystallization pattern which derives from the initial ice formation on the surface of still water—but this may be quibbling about very significant minutiae.. (Cf. p. 60.)

j. In trying to give the spread and influence of the garden art in the arts and crafts (as this reviewer educes his purpose,) the author could have borrowed from examples on porcelain in color, from wrought iron examples from Wuhu, from carved doors and

windows in realistic "stone mountains" with wood peonies, snowballs, bamboos by garden pools instead of including so many colored pictures of dynastic paintings—but possibly the author had other purpose in view.

k. It would make a more satisfying book if all but one of the "horrible examples" of occidental-oriental attempts of the garden art in the Yuan Ming Yuan (Plates 189-192) had been omitted. To be sure these are now on



Bernard Harkness

*"Plants must live and flower with virtue and die suitably. Gardens to the Chinese represent life in all completeness * * *—Fletcher Steele*

record, but happier examples could be taken from Yenching University as of this date.

1. One looks in vain for borrowings from Boerschmann's *Picturesque China* and Sowerby's *The China Journal*, which would have rounded out geographically this valuable book.

m. One does not find distinctive dwarfed trees in "heavenly wells" and court yards, stone mountains in miniature with vegetation, or pure crystal

"stone mountains" innocent of vegetation—in porcelain dishes. One does not find stone mountains with miniature vegetation "on the make" under shady lime-impregnated springs (to be sold by peddlers on the streets.) It may be that the author has never found stone mountains *in situ*—for the taking—on the surface, etched by the weather or underneath the surface, etched by humic acid from decaying roots.

This reviewer was looking forward



Bernard Harkness

Here is complete seclusion with the aspect of a rocky mountainside—in the heart of a crowded city

to a synthesis of all the research and pictures, that would present the philosophy that the author, if any one, should find as a foundation for these findings and present as a summary even at the expense of repeating himself. This reviewer had hoped that he would present the Chinese preoccupation with wood, water, and earth (as well as metal and fire)—of the Chinese “periodic table,” with the magic of chlorophyll life, with the basic ying-yang

across four thousand years, and with that key radical—the “grass head (or top”) —that mothers more Chinese characters in the K’ang Hsi dictionary than any other radical. It would appear that the “grass roots” of Chinese gardens first struck these roots into the fertile soil of Chinese philosophy.

Now the world will have to await a set of synthesizers who can exploit present data and collect new data (some of which Sirén presents in his



Bernard Harkness

The younger generation with a "stone mountain," a treasure of the family garden

book). There are needed airplane pictures of key scenic mountains from an angle of 45° to the horizontal—like Chinese scenery paintings. There is a need for associating in parallel, dynastic paintings of "mountain-water" (scenery) with these their models. Then there is need of historians who time the Chinese artists' discovery of the originals with the displacement of scholar-artists by dynastic and other wars. (The maritime provincials driven to Szechwan, Sikang and Kansu dur-

ing the late Sino-Japanese War rediscovered their West and broke forth in pictures of mountain scenery, and snows, and tribal people, and goat and sheep scenes. These pictures are "dated" and "latitude-and-longitude-inated" as much as Pearl Harbor. The author of *Yuan Yeh* (noted on pp. 24-27) almost generalized that "stone mountain" materials have their own erosion history and locale, but he was too modest and he did not have the scientific training to make this general-

ization. Someone needs to make a careful collection of stone mountain materials and consult a soil technologist like James Thorp of "Geography of The Soils of China" fame, to correlate what is already known as to transport of the same.

Then there is need of a living botanist who can extrapolate on Ernest Wilson's collection at The Arnold Arboretum and his books—to place the garden in relation to the broad sweep of Chinese vegetation. The author of the suggested work would have to associate with himself one who knows the borrowings and loanings of varieties of plants across the "Af-Eur-Asian" world during slightly more than two thousand years and he would have to have the "feel" and sensitivity, the courage and the scientific caution of an ethnologist and an anthropologist—for the philosophy of the Chinese garden is not strictly and solely and uniquely Chinese. Now that Sirén has failed us here, this reviewer knows only two men who could qualify to head us such a team. One this reviewer has never met, and the other he would recommend to do the job—in some twenty years.

This reviewer visualizes two groups of people who may see it: the first is interested in the philosophy and art of the Chinese garden and in the question as to why it got that way, and the second is interested in the constructional problem of "growing" a garden that has the feel and touch of the oriental garden. The following suggestions may help the second group.

Look over this volume. Then look over Japanese gardens and flower arrangements—for these show the borrowings and retentions with not too much loss from out of old China. Note the Heaven-Earth-Man elements but

do not be too much disturbed by the names—for you can hardly accept the male-femaleness of rocks and stones and the basic philosophy of the Chinese garden. Absorb the rock formations of the borrowings from the Yuan Yeh of this volume. Then go out and find the rocks and stones that are native to your state or region. Moreover, study and know your vegetation that likes your climate and soil. If in doubt, ask the plants themselves. Note the porosity and capillarity of your collected materials—stone and soils. Then in your own way, show that you have the spark of creativity—and grow with your garden. You will discover that you have enrolled yourself in a course that will discover yourself to yourself and you will find that "Penn's Woods" or the "Buckeye Forest," and Death's Valley vegetation will respond to your growing knowledge of your region's climate, soil, rock and water possibilities and your vegetation's response to the same. And may you evoke an epitome or a sample of your type flora in and among typical rock of your region as you give it setting at the bottom of your garden, by your door stoop, or even inside or outside your window ledge. And do not be afraid to spell *magic life* with small capitals and do not feel that you have to transvalue *stone-mountains* to tap the strength of the hills. You will find the magic of green life for there will be a transfer from the Life Magic of chlorophyll and all of that mental furniture of Chinese Gardens. And you can thank this large volume for stimulating you to think and to do for yourself.

And now, this reviewer returns you to Osvald Sirén and his Chinese Garden, and its Ronald Press of New York City. Price \$30.

II—A RECOLLECTION. *Bernard Harkness.*

Fate, operating at its opportunistic optimum, in 1943 withheld me from England and the European countries because of some physical defects which became imperceptible in 1944 when troops were needed in the Far East. Thus it was that I, a somewhat elderly GI. who had long pursued the vocation of horticulture, became acquainted with Chinese gardening.

In Szechwan Province in West China an area, tiny in comparison with the great extent of the country, along the Min River from the village of Hsing-Ching about 25 miles southwest of Chengtu, the city of Chengtu itself, the famed site of a continuing Tibetan foothills some forty miles northwest of Chengtu is all the area with which I can claim any familiarity. Had it not been for a week of rest-camp freedom for exploration in the Kwan-hsien territory where one knew E. H. Wilson had collected and the generous opening of certain private gardens in Chengtu, the frustration of an army existence in China would have been as complete as elsewhere.

A policy in connection with the setting in operation of airforce fields the world around was that weather units should be among the first to set up shop. It was inevitable, in consequence, that such pioneer units would claim and hold against all comers the pleasantest living quarters available. Thus it was that my Chinese abode was not a hastily put-up barracks on the raw edge of an air-field, but instead a walled hostel of some years standing and a part of the village proper. After two years of the bleak aspect common to army air-fields it was a boon to live again with borders of familiar flowers faithfully tended by a gardener. In the mild Szechwan climate he did not have to

lift the tubers of his dahlias or cannas as the ground did not freeze to a depth to injure them. *Nandina* was in glowing autumn color when I first saw it there, later in the winter *Meratia* braved the chilly days and freezing nights with its fragrant bloom. Both pink and white *Zephyranthes* bordered the walks in a wide ribbon of foliage and a pleasant show of flowers after summer showers. Indeed this hostel's plantings reflected more the modern Chinese cut-flower grower's interest than the historical Chinese garden.

Previous to the flood season of the Min in June and July when summer suns slightly melted the snows of the Tibetan peaks and augmented the floods from the heavy rains, there operated near our village a low-water water-power wheel that "piston-chugged and worked to pulverize chunks of Juniper on a ribbed sandstone. Cakes of the ground-up cedar were dried on racks in the sun and then sent to Chengtu to be reformed into the incense sticks burned before temple idols. Except for the round cakes the process was like that described by P. H. Dorsett twenty years ago in NATIONAL HORTICULTURAL MAGAZINE, (April, 1929).

In September of 1945 it came to my notice that Josephine Henry, well known to NATIONAL HORTICULTURAL MAGAZINE readers for her pictures of the Henry British Columbia expeditions, was on the field in charge of one of the Red Cross canteens. It was my pleasure to show Miss Henry a favorite hike over the adjoining red sandstone hills where in its season *Vitex negundo* seemed a dominant shrub, but in no season was there a lack of some find of botanical interest. That Miss Henry was the same intrepid traveller of other expeditions is evidenced by a snapshot I have of a

nervous snow leopard cub in her arms, the mascot of an air group.

From the air-field down river one travelled to Chengtu, the metropolis of over 800,000 population, for change of scene. On my first visit good counsel directed me to the fine group at West China Union University, which devoted much time and thought to introducing the soldiers who came to them to whatever part of the Chinese culture they were best equipped to appreciate. Unfortunately, only a small minority were able or willing to benefit from this gracious generosity. Just to step within the gates of the University was a quieting and relaxing experience after a hectic ride over roads filled with man-powered transportation through villages whose open shops narrowed the street to alley width into a city whose streets were filled with such streams of people that one felt impelled to seek a familiar place or face. It has seemed such an oasis to others, notably Robert Payne who said in *Forever China*, "The brilliantly painted joists and shining tiles of the roofs on the campus at Chengtu belong to the world I had imagined in my childhood, a world of lotus pools and gardens, of jade girdle pendants and the sonorous voices of the chamberlains."

It was my privilege to benefit from the life-long studies and explorations of Dr. Daniel S. Dye, who when apprised of my horticultural interest in Chinese gardens attempted to give me an insight into the great cultural significance of gardening in China, and its ramifications into many fields, geology and anthropology and, most interestingly, its relationship in its design to all the arts. The relationship of painting to the gardening art is well documented by Sirén in *Gardens of China*. Dr. Dye has published a two-volume work, *A Grammar of Chinese*

Lattice, which Sirén has drawn upon for illustrations of that expression of design in the background of the garden. It is a continued privilege to append these random notes and West China photographs to Dr. Dye's authoritative review of Osvald Sirén's *Gardens of China*.

Three gardens remain outstanding to memory. Perhaps the most important one seen was that of an ultra-conservative, wealthy family whose garden showed the most careful adherence to the ancient precepts. In the stone grottoes, the overlooks, the relationship of water to stone and of both to vegetation one immediately felt that here was the result of studied striving for perfection in the garden landscape. At another residence a man trained in western science and who has adopted a western religion kept in his garden to the ancient traditions and cherished the various examples of its art to be seen there. The third was that of a man of quite Rotarian cordiality who had turned to the creation of miniature dish landscapes, a true heritage of an ancient Chinese art, as a corollary to a collection of ancient ceramics.

Osvald Sirén's photographic exhibit of gardens of the other areas of China provides an exciting opportunity to compare with those recorded in Szechwan. I, for one, am grateful for this sharing of a great collection of photographs.

As usual, the typesetter's gremlins played at will with the Latin of the botanical names and the lack of correction seems at variance with the care with which the book has been prepared. Some 23 names italicized in the chapter, Flowers and Trees, are incorrect. *Pinus sinensis* appears as *Pinus senensis*; *Pyrus ussuriensis* becomes *Pyrus assuriensis*; all are of this inconsequential but annoying pattern.

The Garden Workbook and Diary.

Prepared by a Committee, Dorothy Gow Kemble, Chairman. Doubleday and Company, Inc., Garden City, N. Y., 1949. \$2.50.

There are almost as many pages in this book, prepared by the Committee or to quote "Compiled and Edited by Wellesley-in-Nassau, N. Y., for the 75th Anniversary Fund of Wellesley College, Wellesley, Mass., 1875-1950, as there are in the year." The only times that have been crowded are the pages of January.

Each page is headed either by a quotation from some writer or by a paragraph or two of pertinent advice. Both time and place are held in mind, but as can be understood, in the brief space allotted to text, not much can be said. What is said, is done with sound advice and considerable charm. The main purpose of any such book is to be provocative and in this the present volume succeeds admirably. Whether or not you will wish to sully its pages in the space provided with your own handwriting — handsome or otherwise — is a question that only you can answer.

Spring Flowers (Hyacinths, Tulips, Narcissi). Rock Plants (Cacti and other succulents). Water Color Paintings by Arlett Davids, 32 plates in each volume. The Hyperion Press, through The Macmillan Company, New York, 1950. \$3.50 each volume.

These are books of pictures, the first with a brief introduction by the Princesse Bibesco, the second with a prefatory note by Henry de Montherlaut. For the gardeners they are of no importance at all, save as he may enjoy artistic presentation of his material and may have his vision sharpened by the images as another saw them.

The colors are clear and charming. The technique is one that has employed considerable opaque body color, has permitted some vagueness in drawing and has ignored all sunlight. Many of the specimens drawn were in the poorest of horticultural condition, but that is a mode as one can easily see by looking at any fashion journal and observing that all the females wearing the clothes-on-parade have gaunt faces, shadows under their eyes, too little vitality to stand erect and often positions of hands and legs that suggest arrested St. Vitus Dance. The flowers and some of the succulents in these volumes show the same characteristics. This is truly sad, for if gardening teaches one anything at all, it is the exuberance of life, no matter what the tempo may be.

Delphinium, The Book of the American Delphinium Society, 1949. Sent to all members. 127 pages, illustrated. Membership, \$3.00 the calendar year.

This nicely printed annual (done by our pritrner) has the usual sort of stuff that one would expect to find within the annuals of books devoted to one single flower, being raised by all classes of gardeners from the most advanced to beginners, from persons who live where delphiniums do not have to struggle with the weather and from those who live where no delphinium with any sense would survive if not cosseted. There are too many articles from England that will have to be interpreted for use here, save perhaps in the Pacific Northwest and in Maine.

There is no question that the perennial delphinium is vastly superior to what it used to be, that it gives a spectacular return for the effort invested in it, that it is open to endless future

work that will be as rewarding as any and that a host of persons feel 'that way' about it; but it is equally true that there is a considerable amount of work to be done before it could be classed with the weed perennials meaning iris, hemerocallis and peonies, all of which will go on, more or less in spite of one.

If you like to grow delphiniums this is your society; if you like to be in on round-robins, again this is your society, if you like to do almost all your gardening on the chatty level, you will find other delphinium lovers who will want to talk with you about it all, even if only to recount adversities. Good book, human and likeable with every inducement to make you get into the work.

American Rose Annual, 1949. Edited for the Society by R. C. Allen. 272 pages, illustrated. \$4.50.

As always the annual touches upon practically every phase of rose growing and interests rose growers on all levels, whether in the strictly amateur or the professional fields. This particular volume is of interest in that it brings a brief and friendly account of the life of the late Dr. J. Horace McFarland, who played so powerful a role in all the doings of the Society. There is no portion of the whole that will not have something for you if you grow roses, and if you are an old hand at it, you will turn to the Proof of the Pudding section and chortle with delight at the kinds of praise, blame and contradiction, but if you are just an ordinary mortal the one piece you must read is "The Diagnosis and Treatment of a Rosarian" by Dr. E. C. Hamblen of Durham, N. C. If after reading it you do not tick off your friends and perhaps yourself as well, I miss my guess. It is delicious. You are, of course, already a member of the Society so no

further word of praise is needed!

The Daffodil and Tulip Year Book, 1949. The Royal Horticultural Society. London, England, 1949. 8 shillings 6 pence.

The greatest pleasure in reading a new issue of this book is built upon the pleasures that have accumulated in the past. One meets old friends again, sees the evidences of their successes in shows and gardens, learns of new names and new persons who must be remembered and if he is old enough reads with true regret of those who have gone on since the last volume, regret that is not one whit lessened by the fact that the friendships were of the mind only.

The daffodil in Briain, has the perennial task of refining refinements. The level of work has been so high for so long, that the variety that is to be proposed must be truly wonderful if it is to have a showing. The fact that new varieties do continue to appear, does not mean that all will come into the hands of any gardener anywhere; it is most likely that many will remain in the hands of collectors who grow flowers for the enjoyment that comes to them alone in the privacy of their gardens.

To the gardener here in the States there is always the great advantage in reading these articles and, in studying the pictures, of seeing what is considered the refinement of importance. The words are often old and familiar, repeated until one feels irked a bit, but there are no other words and one will note that here in America the level of show flowers continues to rise in spite of the prevalence of non-show flowers in the ordinary catalogues. There is always now an occasional exhibit that is almost all that could be asked.

If you grow narcissus you owe it to

yourself to buy this book; if you are in a garden club with narcissus projects, you should make it required reading for every would-be exhibitor.

And you will find that there are articles here that report on doings in the United States, as well as notes from all the other daffodil growing centers of the world, friendly notes that warm the heart.

Orchids and How to Grow Them. Adelaide C. Willoughby, Oxford University Press, New York, 1950. 135 pages, illustrated. \$3.50.

For the beginner who is determined to grow orchids this slender volume should be the best of all. It is written with admirable clarity, a deliberate concern for the beginner and with a delightful balance between the mad enthusiasm that some orchid books show and the nonchalance that puts a beginner off. To be sure, some of us will and do snort with derision at the notion that the orchid people are 'favored

above other men.' That is pure hokum; for no man who grows an elegant flowering plant from seed that he has determined by his own hand pollination, or better the whole family of unknowns that come from such a pollination is but as keenly thrilled by the hopes of the unfolding flower as any orchid man and the uniqueness of his seedling, the one-and-only-in-the-world, is just as real to him.

The text is fine; the plan delightfully ordered, with the proper progression in ideas and the due cautionary element hushed as it should be so that one does not have too much the feel of the clinic, the illustrations are clear, though mostly rather small, and tell something of the range of form that the orchids of the world will disclose to any one who has the equipment, the means, the continued patience and all the rest. It is a good book; if you are at the point of deciding whether or not to grow orchids, don't look at it unless you want to be persuaded.

Gardener's Pocketbook

NOTES ON THE PALMS

1. Comments on *Copernicia Baileyana* León

The medium-sized palm genus *Copernicia* was originally established in 1838, by Martius (*Hist. Nat. Palm.* 3:242), for some South American species *cerifera* ([Arruda-Camara] Mart.) a valuable vegetable was obtained even today. Now the center of dissemination of this fascinating aggregation appears not to be in South America, but rather in the island of Cuba, where some twenty-four indigenous forms occur, in varying distributions.

The subject of these initial notes on the palms is one of these Cuban *Copernicias*, *C. Baileyana* León, which has proven to be a rapid healthy grower in the soils of South Florida. The accompanying illustration, taken at the Coconut Grove Palmetum of Col. R. H. Montgomery, shows one of the several specimens of this attractive palm which now grace our collections.

Copernicia Baileyana was described by Hermano León (Dr. Joseph S. Sauget y Barbier) of Habana's Colegio de la Salle in 1931 (in *Rev. Soc. Geog. Cuba* 4, ii:52). The type specimen—*León 14830*—was gathered at "Quinta



Copernicia Baileyana

Covadonga, Cerro, Habana, where it was probably introduced from Camagüey or Oriente." This endemic palm is now known from all the Cuban provinces except Matanzas and the Isle of Pines. A varietal form, *Copernicia Baileyana* var. *laciniosa* León (in *Mem. Soc. Cub. Hist. Nat.* 10[1936] 224), is now known from San Pedro de Cacocum, in Oriente province. This concept, which the author declares perhaps will be elevated eventually to full specific rank, differs from the species in having the ligules more than 25 cm long, and split into narrow lobes.

Typical *C. Baileyana*, known as the *yarey hembra* in Cuba, is a robust palm to 15 meters high, with eventually a slick smooth trunk as much as 6 dm in diameter. The petioles are well over a meter long, very spinose, and expanded into a triangular-rotund ligule at the apex. The orbicular lamina of the

leaf is composed of 120 segments or less, the middle ones of which attain a length of 16.5 dm and a width of 5-6 cm. They are bifid at the apex, and connate for about two-thirds of their length.

The spadix, which attains an eventual length of some 3 meters, is five-times branched typically, with each part of the inflorescence about one meter long. The floriferous ramifications are 3 to 8 cm long, and bear glomerulate blossoms, paired or in threes, about 6 mm long. The upper branchlets of the spadix are furnished with tubular spathelets which are tomentose and attain a length of 8 cm. The calyx of the blossoms is pilose outside, and bears a greenish tube, while the lobes are reddish in color. The corolla lobes are somewhat triangular, densely pilose without, and thickened apically. The stamen is elongated and trilobate; the anthers are ovate. The gynoecium is turbinate and deeply eroded above. The fruits are ovate-subglobose, about 2 cm long and 18 mm in diameter, and has a pericarp which is about 2 mm in diameter and rather thick. The seed is globose, and 12 mm long and 11 mm in diameter.

The rather stiff foliage of *Copernicia Baileyana* is utilized in the manufacture of hats around Batabanó, in the province of Habana, and the very hard wood of the trunks has long been used for uprights in construction.

This attractive and stately palm, certainly one of the showiest of the Cuban species of this fascinating genus, should be more widely cultivated in tropical lands. Here in South Florida it appears to thrive under a wide variety of soil and moisture conditions, and soon forms a large and impressive specimen.

ALEX D. HAWKES

Coconut Grove, Fla.



H. F. Loomis

Tetrazygia bicolor

This tropical shrub is included—frankly—because the editor particularly likes this photograph of the flowering panicles and the “quilted” leaves.



H. F. Loomis

Centrosema ternatea

A charming slender vine with pendant pale lavender flowers; also a green manure crop in the tropics.



H. F. Loomis

Combretum smeathmannii

One of the many vining shrubs or trees from the West Coast of Africa, Madagascar, Northern South America with fruiting panicles almost as showy as their flowers.



H. F. Loomis

Tournefortia scandens

A charming evergreen vine with unimportant flowers followed by delightful pure white berries.



H. F. Loomis

Nauclea esculenta

Seen as a small tree with fine evergreen foliage, startling pinky-white inflorescences in bud and even more striking when fully open. "They say" the fruit is good to eat.



H. F. Loomis

Guaiacum officinale

Just for the record, this picture of Lignum-vitae is included. People who have tramped the Florida Keys will remember.

From Florida

Bulbous plants that are much neglected in South Florida are the Crinums, and yet, they are heaven-sent to the lazy gardener. They have full garden value through the year; will grow in sun or shade; and will stand neglect although they appreciate and respond to good care. They range in size from the huge *asiatica* to one so small it is suitable only for pot culture. The species are all good and among the hybrids are Cecil Houdyshel, a light pink that has several stalks of bloom as does Ellen Bosanquet with deep wine blooms, an unusual color in crinums and this also increases freely, the Empress of India, the milk and wine type and White Queen, an evening bloomer. Gigantea with tulip shaped bloom and black anthers and Gigantea hybrid, known commonly as Christopher lily and is close to Gigantea but not as large.

Some of the species probably have persisted in Florida and Louisiana since Colonial times and like the lilacs in New Hampshire, they are often all that is left of an old garden, the house having long ago disappeared.

OLIVE P. BALDWIN

West Paul Beach, Fla.

Early Magnolias

There have been mentions before this of the interest that is arising in deciduous Chinese magnolias, but a trip south this winter, and a very early season there sharpened that interest. For the first time it was possible to see three trees now in large size in sequence of flowering, Purpurina, Alexandrina and rustica rubra. All belong in the same color range, that is, the early tender colors that all are slightly neutralized in color but not enough to bring them in the back pages of the book where the unpleasant terms of

Vinaceous Buff would turn one back. In the garden pictures, they fit well with the azaleas that are also basically pink, though they are azaleas with enough of lavender in the colors to conflict with the other azalea clones that have the undertone of yellow that enlivens them. In each case there is a definite contrast between the outer color and the inner color of the tepals, with the interior much lighter. Of the three and their bloom periods overlap, Purpurina is the earliest and rustica rubra the last. This last has a fatter flower form than the others, suggesting that of Lennei.

The only regret in the whole matter is that there is no pure white of the same blood that would or might flower with them. In the collection visited, the best white was recorded only as 'White Seedling' and is not pure white on the outside of the petals, though pure enough within where the red filaments of the stamens make a delightful contrast. This last variety is also marked by a very distinctive scent for which there is no precise or adequate term, but it is distinct enough to lift it above the general category and commend it to any who are interested in the scents that improve the early garden when cool air often limits the pervasive spread of perfumes.

Jobs for Retirement

Many years ago the late Mrs. Wilder expressed a wish that some one in this country would make a job of growing stocks of various hard-to-come-by plants for the rock garden, all very privately working away until there were enough thousands to let the stock get the usual trade channels. If I recall correctly she had in mind particularly the hardy cyclamen and these have been worked on enough in this country, so they may be had though

not too cheaply, even if the project did not take just the form she had in mind.

The editor would like to propose a similar task for some one who could and would work up stocks of some of the seedling variants that appear in collections where species crocus are grown. In masses of *Crocus Sieberi* that has made itself at home in the garden, there are some striking variants, a few of them possibly bee-made crosses with *C. Imperati* that flowers at about the same time. The most unusual being a form in which the three outer segments are almost white while the inner are the typical *Sieberi* color though they look much clearer thanks to the contrast. There are no veins or other markings.

Another reminder of such projects, is a clump of snowdrop, bought from a Turkish source years ago, and generally falling into the category of *Galanthus Elwesii*. This particular clump has flowered regularly for some years in late autumn, sometimes at the end of October, sometimes in November. Under the usual winter conditions that follow, the seed capsules that usually form are destroyed by the later freezing; this year with an unusually mild winter they look as if they might come through and bear seed that will be planted. It is amazing how quickly seed of such things as crocus and snowdrop will come to flowering if one has a cold frame where they may live in pots sunk in the soil, till blooming. Such a cold frame is not always the most decorative part of the garden but it is a mine of future gold, for it is easier to keep weeded through the summer than any open bed would be.

While the original seeding or division would be easy enough to handle, the real period of delays and waiting would follow while one worked up the stocks. In crocus this can be hastened

by the well-known practice of shallow planting which brings on a rapid production of very small cormlets that can be lifted, replanted at the proper depth and the process repeated until one has enough. For snowdrops one must either wait on the usual division from off sets produced about the base or risk the precious stock by using the splitting (cutting) of the bulb as is done for *Amaryllis* in the choice clones. Even with care there are some losses, but doubtless one could perfect his technique in this as in anything else.

One reads of autumn-flowering snowdrops in old books and magazines but one rarely finds other references.

In these days when the papers are filled with amusing articles written, one supposes, by sociologists who are troubled as to what the older healthy retired generation will do with its time and to keep itself from underfoot, it is too bad that horticulture does not step forward and claim all such, and put the men and women to work on the slow but essential tasks of bringing such matters into the realm of reality.

Abeliophyllum distichum Nakai

Among the early flowering shrubs, those that cover themselves with bloom before the leaves appear, this member of the Olive Family, is rarely seen. It would be a splendid thing to try in situations when the climate would be mild enough to allow early flowering without frost damage. Unlike the forsythias that are entirely yellow in varying hues, this plant has white blossoms about an inch across, borne rather stiffly along the stark branches as can be seen in the illustration kindly furnished by Dr. Wyman from his institution. The editor would be happy to have reports from elsewhere.



Arnold Arboretum

Abeliophyllum distichum

This and That

Among the various things that have come to note this last growing season was the fact that not all the bulbs of what was supposedly *Lycoris radiata* in the garden here, flowered at the same time, one lot coming into flower a full month ahead of all the other lots, these latter received from various sources. It also happened that in ordering a supply of bulbs to be planted in the National Arboretum, the South Carolina dealer told me that he had two stocks, one long on the plantation and the other from Holland. The latter he reported appeared to be identical but always bloomed a month ahead. In the garden here, the early flowering lot sets seed, the later blooming, never, even with hand pollination, selfed or crossed among the different lots which may be of one clone though this is not known.

The seed was planted immediately after ripening, kept cool through the winter and brought into a cool house in January. There was no immediate sign of germination but in time it became apparent that the process had begun. At this writing, a little careful digging shows that there is a good root going down from the hard black seed, but no sign whatever of any further activity, except the greening of the radical where it has come to the surface for one or two seeds not buried deeply enough. Does any reader have any data on what may be expected next; leaf growth or bulb formation and leaves at some later time?

Leaves, of course, are evergreen through the winter on the parent bulbs.

The season out-of-doors has been completely out of keeping, even with the unreliable weather we often have in Washington, D. C. The middle of the winter was mild and March and April have done their best to make up for it.

The one mitigating feature is that the plants that have been confused by it all, are now flowering, not in their proper sequence, but in many varying sequences. The one delight in this, is that sometimes, an upset of this sort will make possible interpollinations between plants that would take considerable attention to bring into simultaneous flowering.

The cold has thus played havoc with the smoothness of some of the narcissus perianths and has chilled some of the red cups into anaemic hues. The Virginia Narcissus Show in Alexandria, brought out many fine flowers and interestingly enough a considerable number of flowers of varieties that are in no way show flowers but of great interest as historical items. Mr. Bate has promised to write a few notes about some of the old sorts that Mrs. Scott and he found so intriguing. Whether or not he does, it is nice to note here that there is a sort of revival that should be of interest to those who care about 'period pieces' and some others who feel that a certain grace is to be found only among the 'primitives', not referring in the least to Grandmother Moses!

All members recently received a mimeo-letter telling about various things that might serve as an adventure for 1950 gardening. The response has been interesting. The editor takes his own medicine and for 1950 has on the way a collection of thirty-five named caladiums which will fortify the paper already for publishing and has made overtures for the study of material that may result in a considerable number of Rex begonia pictures. Neither one represents his special interest but certainly two items that have not been fully covered. What have you taken to heart as a result of the letter; and from what start do you begin?

The American Horticultural Society

INVITES to membership all persons who are interested in the development of a great national society that shall serve as an ever growing center for the dissemination of the common knowledge of the members. There is no requirement for membership other than this and no reward beyond a share in the development of the organization.

For its members the society publishes **THE NATIONAL HORTICULTURAL MAGAZINE**, at the present time a quarterly of increasing importance among the horticultural publications of the day and destined to fill an even larger role as the society grows. It is published during the months of January, April, July and October and is written by and for members. Under the present organization of the society with special committees appointed for the furthering of special plant projects the members will receive advance material on narcissus, tulips, lilies, rock garden plants, conifers, nuts, and rhododendrons. Membership in the society, therefore, brings one the advantages of membership in many societies. In addition to these special projects, the usual garden subjects are covered and particular attention is paid to new or little known plants that are not commonly described elsewhere.

The American Horticultural Society invites not only personal memberships but affiliations with horticultural societies and clubs. To such it offers some special inducements in memberships. Memberships are by the calendar year.

The Annual Meeting of the Society is held in Washington, D. C., and members are invited to attend the special lectures that are given at that time. These are announced to the membership at the time of balloting.

The annual dues are five dollars the year, payable in advance; life membership is one hundred dollars; inquiry as to affiliation should be addressed to the Secretary, 821 Washington Loan and Trust Building.