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THE RHODODENDRON AND CAMELLIA



YEAR BOOK-1966

THE ROYAL HORTICULTURAL SOCIETY

This book contains articles on two famous gardens, Arduaine by Mr. Ilay Campbell and Werrington Park by Mr. F. P. Knight. Plant Hunting expeditions are described, one to North East India by Mr. Peter Cox and the other to New Guinea by Mr. Michael Black. Some rhododendrons in the West of Scotland are described by Mr. John Basford. Mr. K. Wada gives an account of a rhododendron which is closely related to R. metternichii and its hybrids. Mr. A. W. Headlam has contributed an article on Rhododendrons in the Linden Gardens, Australia. The recently named Rhododendron succothii is described by Mr. H. H. Davidian and an account is given of the Australian R. lochae in its native habitat by Mr. B. Menelaus. Major E. W. M. Magor contributes his opinion on the Naming of Rhododendron Hybrids. Mr. G. Gorer writes on the Siting of Rhododendron species. Some of the Rhododendron Hybrids raised by Herr Dietrich Hobbie are discussed by Mr. Oliver Slocock, who has raised many fine hybrids himself. There are reports on shows, including one by Dr. Milton Walker on American Rhododendron Shows. Maj. Gen. Harrison writes on the Camellias he grows at Tremeer in Cornwall. An article on the Camellia Renaissance in America is contributed by Mr. Joseph Pyron of the American Camellia Society, while Col. T. Durrant writes on Old and New Camellias in New Zealand. An article by Mr. G. R. Wakefield on the Propagation of Camellias from Cuttings should be of much use to growers who wish to increase those plants they themselves grow. The book is fully illustrated with coloured and black and white plates.

COVER ILLUSTRATION

Rhododendron schlippenbachii 'Prince Charming'

Colour photograph by
J. E. Downward

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R.H.S.

1966

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AND

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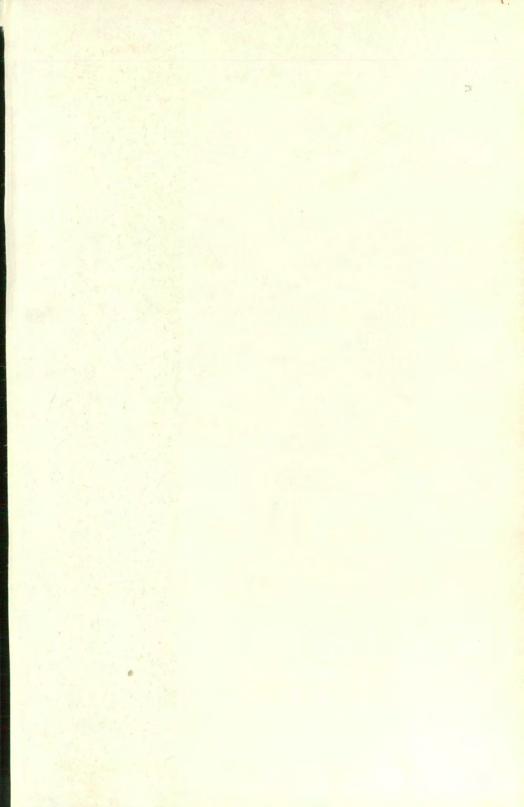
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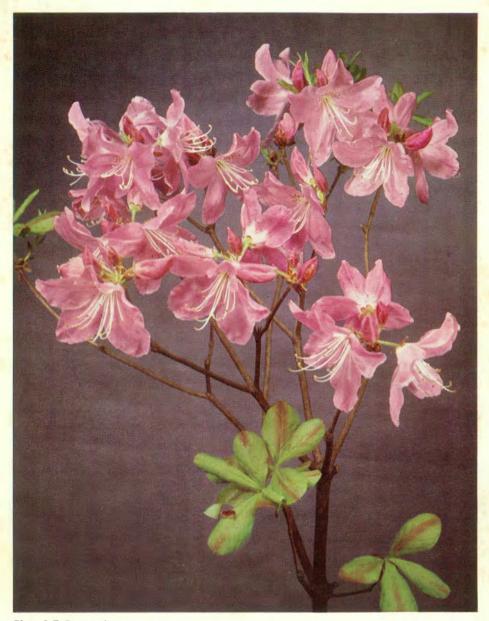


Photo: J. E. DownwardRhododendron schlippenbachii 'Prince Charming' F.C.C. May 4, 1965, when exhibited by Sir Giles Loder, Bt., Leonardslee, Horsham, Sussex (see p. 162)

THE RHODODENDRON AND CAMELLIA YEAR BOOK

1966

NUMBER TWENTY





THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE, S.W.1
1965

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FOREWORD

THE advent of this year's Rhododendron and Camellia Year Book marks the twentieth year of publication, and it is fitting

to look back on the contents of the past years.

Almost all of the large rhododendron gardens in the British Isles have been described in its pages. Those along the western seaboard predominate in numbers. Amongst their collection of this genus, the accent is more towards the species, aided by the generally moister conditions favouring the growth of the large-leaved series. In contrast, those along the eastern seaboard show what varieties flourish best in their drier climate, whilst the south-eastern area, with different conditions again, have their own specialities, with the accent perhaps more on hybrids. Yet amongst all these gardens there are large numbers of both species and hybrids, which seem to flourish anywhere, where acid soil conditions prevail, showing how versatile the genus is. Abroad, rhododendron gardens as far apart as New Zealand and Sweden, the Pacific north-west coast and Germany, have been written up and pictured.

The propagation of rhododendrons has been gone into thoroughly by various experts, and it is comforting for enthusiasts in this country that so few pests and diseases attack the plants here that articles on this subject are few and far between. Plant hunters have described their expeditions, and the conditions they met in their searches provide much interesting reading. It is a great pity, as travel becomes easier and quicker, that permits to explore in virgin rhododendron country have become more difficult, if not impossible, to obtain. Botanical experts have contributed a succession of articles on the reclassification and naming of the *Rhododendron* genus in their series, in the light of the latest knowledge.

Plants obtaining awards during the past years, both at the Shows and also in the Trials at Wisley, are fully described, and often illustrated; whilst the Show reports exemplify how, according to the earliness or lateness of the season, different varieties figure

in the award lists from year to year.

Some twelve years ago the *Camellia* genus joined this Year Book, and articles on them have covered a wide variety of subjects, including their propagation and culture. Descriptions of camellia

collections growing not only in this country, but in Italy, France, Belgium, Spain, Portugal and Madeira, have been included. Further afield, from Australia and New Zealand, articles have been published on this subject, as well as several from the United States.

It is evident that keenness in camellias has undergone a great revival in this country within the past few years. Many old forgotten bushes, planted by a previous generation, have aroused fresh interest. To assist naming, many of the commonest varieties have been fully described and illustrated, whilst further articles on nomenclature, and on new varieties, have been featured during the years.

I feel sure that readers will find this year's book fully up to the standard set by its long line of predecessors, and I hope it will encourage some to contribute articles to ensure that the next generation of Year Books is as interesting as the last.

GILES LODER

(Chairman, Rhododendron and Camellia Committee)

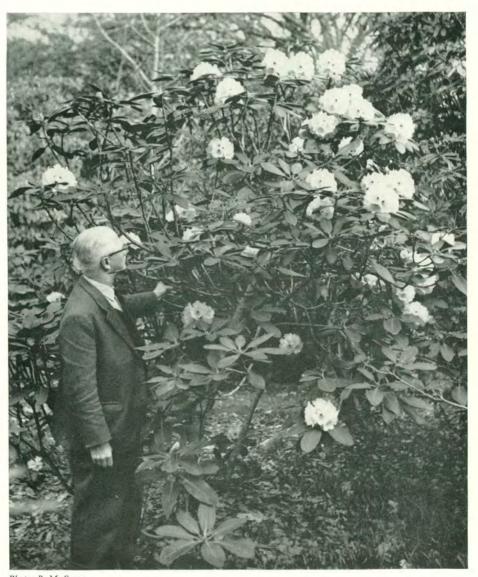


Photo: P. M. Synge Fig. 1.—Mr. F. P. Knight and Rhododendron lacteum at Werrington Park (see p. 15)



Fig. 2.—Rhododendron 'Temple Belle' and R. 'Standishii' forming a huge bank at Werrington Park (see p. 18)





Fig. 3.—Mr. F. P. Knight drawing attention to the tree-like girth of Rhododendron decorum at Werrington Park (see p. 14) Fig. 4.—A massive bank of Rhododendron 'Humming Bird' at Werrington Park (see p. 67)



Photo: J. E. Downward

WERRINGTON PARK

Fig. 5.—Rhododendron 'Humming Bird' at Werrington Park, forming a bank 8 feet high (see p. 17)

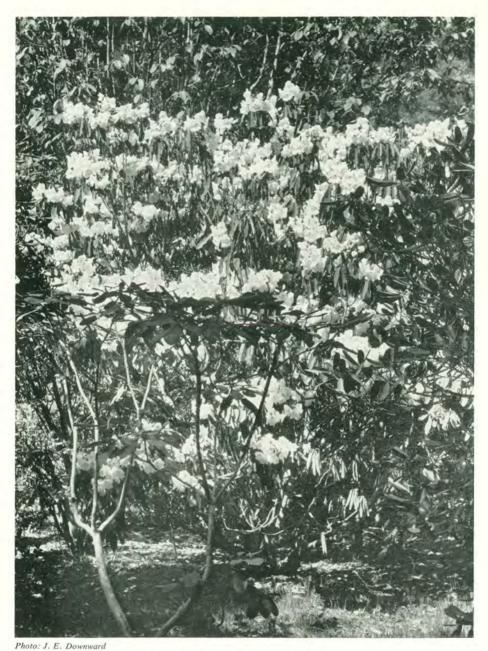


Fig. 6.—Rhododendron griffithianum at Werrington Park

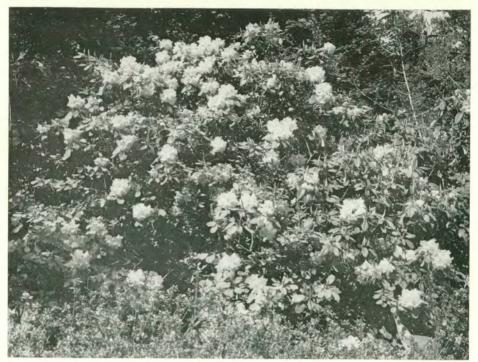


Fig. 7.—Rhododendron orbiculare × R. pink decorum at Werrington Park



Fig. 8.—A close up of *Rhododendron campylocarpum* \times *R. souliei* at Werrington Park



Fig. 9.—Cryptomeria japonica, 60 feet high at Werrington Park (see p. 19)





Fig. 10.—Betula utilis var. prattii raised from seed collected in China by Dr. E. H. Wilson, No. 4087B, growing at Werrington Park (see p. 19)

Fig. 11,—Betula albo-sinensis raised from Wilson's seed No. 4106 (see p. 19)

RHODODENDRONS AT WERRINGTON PARK

By F. P. KNIGHT, F.L.S., V.M.H.

WERRINGTON PARK is a beautifully wooded estate about two miles from Launceston in North Cornwall and spreads into both Devon and Cornwall, the house occupying a commanding position on the Devon side of the River Ottery which flows through the park and separates the two counties. The unique collection of rhododendrons grows on the highest part of the park on the Cornish side of the river, from which it is separated by a magnificent beech wood on a very steep slope.

To those who wish to delve deeply into the history of the Werrington Estate I would recommend them to read a small book entitled *The Manor and Park at Werrington in Devon and Cornwall* by Otho B. Peter, which covers the period from A.D. 958 to 1906.

The late Mr. J. C. Williams of Caerhays Castle, the father of the present owner Commander A. M. Williams, C.B.E., D.S.C., R.N., purchased Werrington Park in 1882 and began making suitable clearings in dense thickets of *Rhododendron ponticum*, which had been originally planted as cover for pheasants, in which to plant other rhododendrons and many other attractive plants. This was the beginning of what is known as the Terrace Gardens. The first essential was the erection of a substantial fence to keep out the deer which live in the park.

The Terrace Gardens occupy about seven acres; the soil is stony with a thin covering of peat and a soil test made in April 1965 gave a reading of pH 4·0-4·5. The average rainfall is about 44 inches per year. The winters are a good deal colder than those of the more sheltered maritime Cornish gardens such as Caerhays Castle, and many plants which grow well there will not thrive at

Werrington.

I first knew the gardens at Werrington as a schoolboy before the beginning of the first world war and nothing gave me greater pleasure than to spend part of my school holidays watching my father caring for the young plants raised from George Forrest's seeds collected in western China. One of my very earliest recollections is the pungent scent of the leaves of rhododendrons of the

Lapponicum and Saluenense series which I used to rub in my hands on hot summer days. I was later to begin my gardening career in the gardens and to be trained by two very experienced and painstaking head gardeners, the late R. F. Fitt (after whom Rhododendron fittianum was named) and the late R. M. Gregory, in the basic work of raising many wonderful plants from seed. I look back on the great thrill of seeing George Forrest for the first time at Werrington in 1919 and I was later to meet him and hear him lecture on his travels at the Royal Botanic Garden, Edinburgh. My very humble contribution in those early days at Werrington was to prepare the boxes into which the seeds were sown and to sterilize the soil, and even boil the rain water which was cooled and then used in small hand sprayers from which a light waft of mist was skilfully applied where necessary to the surface of the seed boxes, and equally important was withheld from those boxes where it was not required. When the seeds were sown the first watering was done by immersing the boxes in rain water contained in specially made shallow tanks.

The boxes were specially made in the carpenter's shop a few yards from the potting shed. The wood was seasoned, the boxes measured a foot square, and the sides were 3 inch thick, drainage slits were provided and the planed top of one of the sides was covered with white paint on to which the name and collector's number and date of sowing of the rhododendrons was written in fine copper-plate handwriting with a garden pencil. Each box was covered with a pane of glass, which under the foreman's supervision I removed for a time every morning and replaced when the saturation had been dried off. Later as the seeds germinated a tack was driven into the top of one of the sides of the boxes to allow for a little ventilation and drainage of the condensation. The importance of all these cultural details was impressed upon me again and again; there seemed to exist an atmosphere of George Forrest having undergone great hardships to collect the seeds and we should not let him down by neglecting the gardening required. I often think of the sterilizing of blocks of good quality peat by placing them on a sieve which was then wedged into an oldfashioned copper above the water which was then boiled so that the peat became thoroughly steamed. I can still vividly recall the scent of the escaping steam. The loam used was dug in the park and matured for at least a year; it was very fibrous. The sand was that so widely used in Cornwall from the china clay workings; it was coarse and open and we washed it to float off the silt before

mixing it for seed sowing. I used to enjoy every minute I spent on such work.

The pricking off of the seedlings into the square boxes and subsequent transplanting of these to covered cold frames and from these to nursery beds followed the normal practice for such operations, and finally the young sturdy plants were given permanent positions on the Terrace Gardens. The head gardener kept careful records of all the collectors' numbers, with particulars of germination and subsequent location of the plants.

Mr. J. C. Williams's earliest plantings were of plants raised from seed collected by E. H. Wilson and obtained from the nursery of James Veitch & Son, at Coombe Wood, Kingston Hill, Surrey. These included *Rhododendron auriculatum*, calophytum, decorum, discolor and sutchuenense, and also some hybrids raised at Veitch's Nursery by George Harrow and known as Harrow's Hybrids.

The birches, which can be seen as fine trees with polished mahogany or white bark in the south-west corner of the gardens, also came from the same source and include Betula albo-sinensis (Wilson 4106), B. albo-sinensis septentrionalis (Wilson 900 B), B. utilis var. prattii (Wilson 4087 B) and B. japonica var. mand-shurica (Wilson 4088 B). A point of great importance is that these trees can be linked directly with Wilson's collection and the old lead labels which are fixed to iron stems are still to be found in the ground at the base of the trees. In fact, this is the case with many of the plants at Werrington and it is vitally important that they should be maintained and replaced when necessary. The birches at Werrington Park are worthy of a special article.

Mr. J. C. Williams kept closely in touch with Chinese botanical expeditions and supported George Forrest from his early days in western China. The seeds which came to Werrington were mainly of woody plants, chiefly rhododendrons, but I clearly remember the large collection of primulas. There were lovely plants of *Primula spicata*, and one named werringtonensis, which I saw recently in the rock garden at the Royal Botanic Garden, Edinburgh, labelled obconica werringtonensis. Other lovely plants which flourished at Werrington during the first-war years included *Paraquilegia grandiflorum* (known then as *Isopyrum*). This grew well in the stone walls, with old plants of *Primula forrestii* hanging on in the crevices from single rootstocks which used to sway precariously in the very strong gales which were all too prevalent.

As more and more rhododendron seed poured in from George Forrest and plants were raised, the original Terrace Gardens were enlarged by enclosing additional land to the east. It proved difficult to care for all the plants as the first war lengthened and the young men on the estate joined the Forces, and in the period between the two wars the policy was that of maintaining as well as possible the existing collection, but not adding to the numbers

being grown.

In 1920 Mr. J. C. Williams transferred the Werrington Estate to Commander A. M. Williams and urged him not to try to grow tender plants but to do all he could with a reduced labour force to keep what was already in cultivation. Commander Williams does not hesitate to talk of an incident which occurred soon after the responsibility was transferred to him. In 1921 there was a very dry summer during which many young rhododendrons were not properly mulched and cared for. In that year "Mr. J.C.W.", as we all knew him, was walking around the walled garden near the Manor House with a party which included W. J. Bean, and the losses in plants were clearly apparent. "J.C." remarked to the party "My son has the distinction of having killed more mountain rhododendrons than any man living." It is remembered that the party proceeded for some distance in silence. Mr. J. C. Williams was a wonderfully observant man and many of his sayings can be recalled. I remember my father coming home from work one evening quite upset because Mr. J.C. considered that a bed he had prepared to receive some of George Forrest's plants was much too neat and tidy.

But now to describe as many as possible of the notable plants still to be seen at Werrington Park. Werrington is my birth-place and I have seen the collection grow to its heyday, but now in some cases the plants are deteriorating through old age and overcrowding. I cannot help thinking, however, that parts of the Terrace Gardens must resemble those from which Forrest collected the seeds in the wild. I sometimes wish that it had proved possible to have given many of the plants more room with wider paths so that their beauty could be fully appreciated. Those who are going to see the Terrace Gardens for the first time may anticipate seeing a unique collection of plants raised from the botanical collectors' original seeds and those who have visited on one or more occasions will remember a collection not matched elsewhere, and think particularly of the large size which many of the rhododendrons have attained.

It is usual to make the journey by car from Werrington House to the Terrace Gardens by dropping quickly down to the White Bridge which spans the River Ottery, through open park land studded with fine trees, noting the old lime walk en route, and a fine specimen of *Pinus montezumae* from the bridge. Then to climb in bottom gear the very steep and winding drive on the Cornish side, finally to take a hairpin bend by the South Lodge and arrive at the wooden entrance gate in the deer fence.

During my many visits I find after entering that I readily fall into the habit of following the same route to see the plants, by keeping near the south fence to the eastern end and then zigzagging back to the starting point, taking in various beds, groups and isolated specimens en route. I have nearly always been fortunate in having Commander Williams and George Fry, the gardener, to guide me or I would have missed some plants of merit.

In order to help any students of rhododendrons who may read this account I have decided to list the plants I have noted at Werrington in their series by following "A List of Rhododendrons in their series" which appears in *The Rhododendron Handbook* 1963, *Part I. Rhododendron Species in General Cultivation* published by The Royal Horticultural Society.

Anthopogon series. This is represented by R. trichostomum but still retains its old name sphaeranthum on the label. The plants are $4\frac{1}{2}$ feet high with moss-covered stems.

Arboreum series, subseries Argyrophyllum. R. floribundum, tall plants up to 18 feet high, and R. hunnewellianum, a group of several plants 15 feet high with pink flowers deeper pink in bud, and

narrow distinctive light green leaves.

Auriculatum series. Rhododendron auriculatum is to be seen as the original group which came from Veitch's Coombe Wood Nursery. The plants are 18 feet high with trunks measuring 22 inches in girth; the bark is rugged and moss covered.

Azalea series, subseries Canadense. Several plants up to 10 feet high of *Rhododendron albrechtii* with flowers of varying shades of deep rose to very bright reddish-purple form one of my favourite

features in the collection.

Azalea series, subseries Obtusum. Rhododendron rubropilosum, from Formosa, is represented by ten plants from $2\frac{1}{2}$ to 4 feet high which had been severely pruned and were breaking into promising new growth. This was not in flower.

Barbatum series, subseries Glischrum. Rhododendron glischroides (F. 26448) was 8 feet high with delicate pink flowers with deeper

coloured lines on the outside of the lobes.

Barbatum series, subseries Maculiferum. Rhododendron pachytrichum and R. strigillosum are to be seen; the latter 10 to 12 feet high was in full flower and formed a dazzling crimson-scarlet spectacle.

Boothii series, subseries Megeratum. Several rounded bushes of Rhododendron leucaspis made fine specimens 2 feet high by $3\frac{1}{2}$ feet

in diameter.

Boothii series, subseries Tephropeplum. A group of *Rhododendron tephropeplum* 9 feet in diameter and 5 feet high just coming into flower made me realize that this species is not as small as I had thought it to be.

Dauricum series. Particular mention must be made of *Rhodo-dendron mucronulatum*; flowers of a deep rosy-purple colour were still to be seen in April which contrasted well with those of *R. lutescens* growing near by. The plants had been severely pruned and had responded by producing wonderful new strong shoots

with flowers of high quality.

Falconeri series. Rhododendron arizelum formed an imposing group 16 feet high, with flowers varying from cream to rich rosycrimson. One particularly good specimen labelled Forrest 21861 was 18 feet high \times 18 feet in diameter with lovely rosy-crimson flowers and a dark crimson blotch on the upper lobes (Pl. 1). This was outstanding. Rhododendron falconeri has grown to 15 feet and R. fictolacteum (F. 14063) to 12 feet \times 12 feet in diameter.

Fortunei series, subseries Calophytum. A magnificent group of five *Rhododendron calophytum* measuring 20 to 25 feet in height are considered to be the original specimens obtained from Veitch's Nursery. There were many young plants growing under these from

self-sown seedlings.

Fortunei series, subseries Davidii. Rhododendron planetum with white flowers delicately flushed with pink grew to 12 feet, but outstanding in this subseries is Rhododendron sutchuenense. Many plants 16 feet high form a fantastic group with thick stems with rugged bark. The ground underneath was covered with countless fallen flowers and there were many vigorous young plants growing from self-sown seeds.

Fortunei series, subseries Fortunei. Numerous large specimens of *Rhododendron decorum* between 20 and 25 feet high are to be seen in various parts of the Terrace Gardens. Some were the original plants obtained from Veitch's Nursery and others were raised from seed collected by Forrest in 1911 and bear the number F. 6776. These have formed thickets of tree-like appearance with

deeply fissured stems of 25 inches in girth. It would be difficult to identify a log of wood cut from one of these as a rhododendron. The flowers are white and of great interest was the heavy crop being carried of the previous year's seed vessels which had split wide open (Fig. 3).

Fortunei series, subseries Orbiculare. Rhododendron orbiculare is seen as a fine specimen 9 feet high and 15 feet in diameter. One

of the best plants I have seen.

Fulvum series. Rhododendron fulvum (F. 17854) grows as a specimen 16 feet high; this was in full flower, pale pinkish-white in colour with small dark blotches. A plant 12 feet high labelled R. fulvoides (F. 21897) was also in flower; this is now R. fulvum.

Glaucophyllum series, subseries Glaucophyllum. Rhododendron brachyanthum (Ludlow, Sheriff & Elliott 13283) is seen with deep pink flowers, which in my experience is unusual. Rhododendron brachyanthum var. hypolepidotum has grown to bushes 6 feet in

height, with very attractive brown shining stems.

Grande series. There are not so many of the very large-leaved rhododendrons to be seen at Werrington as in earlier days. This series is now represented by *Rhododendron macabeanum* 18 feet high, but the flowers are pale yellow in colour, and *R. sidereum* (F. 18054) 15 feet high with pale pink flowers having deep blotches in compact trusses.

Griersonianum series. Rhododendron griersonianum grows as fine bushes and has been used at Werrington as in so many gardens

for hybridizing.

Heliolepis series. This series contributes spectacular groups formed of *Rhododendron desquamatum* (F. 15761) 18 feet high with masses of clear light rosy-purple flowers, and equally impressive are the very large plants of *Rhododendron rubiginosum* seen particularly just inside the entrance gate 20 to 25 feet high, with girth of stems measuring 19 inches, with the branches hidden by rosy-lilac flowers.

Irroratum series, subseries Irroratum is represented by a short hedge-like belt of Rhododendron anthosphaerum var. hylothreptum

and R. facetum, two plants about 10 feet high.

Lacteum series. Rhododendron beesianum (F. 19010), which somehow has been omitted from the 1963 Rhododendron Handbook, is seen as a group 9 feet in diameter and 5 to 6 feet high. Rhododendron lacteum; Werrington has been famous for the cultivation of this rather difficult and scarce species since its introduction by George Forrest. In fact, a form with sulphury-white

flowers with a dark crimson blotch was given the R.H.S. First Class Certificate when shown by Commander Williams in 1926. Several plants with clear yellow flowers are to be seen, some rather

drawn up in a shady site to a height of 16 feet (Fig. 1).

Lapponicum series. Rhododendron flavidum with pale yellow flowers is seen in quantity and R. hippophaeoides (F. 10333) is seen to respond to severe pruning. This has always been one of my favourite rhododendrons. R. russatum is grown in a large bed; the plants are 4 feet high and their deep blue-purple flowers contrast with those of the yellow flowers of R. chloranthum which are interplanted, the specimens of which are 7 to 8 feet high.

Maddenii series, subseries Cilicalyx. There are two fine plants of *Rhododendron valentinianum* 3½ feet high and 5 feet in diameter, but growing in too much shade to produce their lovely butter-

yellow flowers as freely as they would in the open.

Moupinense series. Rhododendron moupinense forms a bank of several plants with flowers varying from white to deep pink.

Neriiflorum series, subseries Haematodes. Rhododendron chaetomallum (F. 16691) and R. pocophorum, the latter 7 feet high with dark waxy-red bell-like flowers, take second place to Rhododendron haematodes. Werrington Park has always been the home of remarkably grown plants of this species which I regard as one of the best in cultivation. Many large plants 8 feet high have grown together to form a dense canopy of brilliant scarlet-crimson flowers. Commander Williams gained an F.C.C. for this in 1926.

Neriiflorum series, subseries Neriiflorum. My note on the spot reads *Rhododendron neriiflorum* (F. 6780) forms an unforgettable sight. There are two informal hedges of this up to 12 feet high and I saw these in full flower; the glistening scarlet colour was

dazzling in the warm sunshine.

Neriiflorum series, subseries Sanguineum. This was represented by large plants of *Rhododendron dichroanthum*, 9 feet \times 9 feet in diameter, bearing salmon-coloured flowers, and sub-species *R. didymum* (F. 20239) 5 to 6 feet high, with *R. sanguineum* 4 feet high and 7 feet in diameter, bearing dark red flowers.

Scabrifolium series. There were many plants of *Rhododendron racemosum*, but one group with deep pink flowers was outstanding. Commander Williams was given the original stock of this by

Colonel Colville of Penheale Manor.

Thomsonii series, subseries Campylocarpum. Rhododendron callimorphum (labelled cyclium F. 15808) grew up to 12 feet high near the south boundary fence.



Photo: P. M. Synge

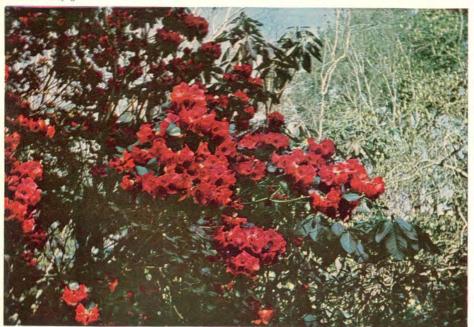


Photo: Mrs. A. M. Williams

RHODODENDRONS AT WERRINGTON PARK

PLATE 1.—*Rhododendron arizelum*. A fine pink-flowered form at Werrington Park grown from Forest 21861 (see p. 14)

PLATE 2.—A fine plant of *Rhododendron meddianum* (F.15767) at Werrington Park (see p. 17)

Thomsonii series, subseries Selense. Rhododendron martinianum, named after John Martin, who was Mr. J. C. Williams' head gardener at Caerhays Castle, always attracts me. The plants in the Terrace Gardens were 6 feet high with deep pink bells with deep crimson spots.

Thomsonii series, subseries Thomsonii. Rhododendron cyanocarpum was seen about 5 feet high, R. thomsonii up to 18 feet, but these were completely outclassed by a large group of R. meddianum (F. 15767) 12 to 15 feet high which I saw in full flower among some colourful stems of Scots Pines. This was one of the very best spectacles in the whole collection and the flowers were perfect in their waxy bell-like bright scarlet to crimson colour (Pl. 2).

Trichocladum series. Rhododendron chloranthum, between 7 to 8 feet high with yellow flowers, grew among a ground work of R. russatum.

Triflorum series, subseries Augustinii. Rhododendron augustinii formed wonderful groups from 15 to 20 feet high.

Triflorum series, subseries Triflorum was represented by R. ambiguum (Wilson 4252) growing as a short hedge about 8 feet high.

Triflorum series, subseries Yunnanense. A hedge 200 yards long and over 10 feet high planted close to the southern boundary deer fence was labelled *chartophyllum* (F. 20430), this is now *R. yunnanense*. A great feature of the cultivation of this and many other species at Werrington is the skilful programme of cutting back which has been carried out so boldly.

Hybrid Rhododendrons

Among the many hybrid rhododendrons raised at Werrington

special mention must be made of the following:

'May Day' (haematodes × griersonianum). Wherever this is seen it always bears a stamp of all that is best in breeding rhododendrons. It has everything—form, colour and lovely foliage. At Werrington it is seen as fine groups about 10 to 12 feet high with clear scarlet flowers.

'Humming Bird' (haematodes × williamsianum). A magnificent solid bank 8 feet high has been planted bordering a grass path. The flowers are pink shaded with vermilion (Figs. 4, 5).

'Werrington' (forrestii var. repens × 'Humming Bird'). This has brilliant clear scarlet flowers in trusses of six borne on 4-foot-high plants.

adenogynum × 'Sir Charles Lemon', with pinkish mauve flowers and attractive foliage.

adenogynum × calophytum, having ruffled and speckled white flowers flushed with pink with a dark blotch.

edgeworthii x moupinense, plants 7 feet high in flower with

characters of both parents clearly seen.

watsonii × calophytum, 20 feet high, with whitish flowers having a deep coloured blotch.

The above-mentioned four hybrids have not as far as could be ascertained been named or registered, but are worthy of being shown.

There are fine examples of other hybrids raised by Mr. J. C. Williams, including 'Blue Tit' (augustinii × impeditum). This is no longer a small-growing plant as we used to know it, as the plants seen were 8 feet high in a bed measuring 12 yards × 11 yards, 'Cornish Loderi' 20 feet high and 30 feet in diameter, 'Yellow Hammer' (flavidum × sulfureum) many plants 5 feet high which had responded well to severe pruning, 'Robin Redbreast' (houlstonii × orbiculare) several plants up to 15 feet high with fine pink flowers, 'Moonstone' (campylocarpum × williamsianum) 7 to 8 feet with cream-coloured flowers edged with pink.

Finally, very special mention must be made of rhododendron 'Temple Belle' (orbiculare × williamsianum) which in the Terrace Gardens forms a huge bank 26 yards long, 15 to 18 feet high and 15 feet in depth. This unbelievable unique spectacle greets the visitor almost immediately on entering where it borders the main grass path on the left. We have never been able to establish if this hybrid was made at Werrington as well as at Kew; the credit in the reference books is given to Kew in 1916. While in flower the countless thousands of lovely pale rose-pink bells compel daily visits, but the striking round leaves and shape of the bank are attractive at any time (Fig. 2).

There are noteworthy hybrids raised by other breeders and visitors will see good plants of 'Arthur Osborn' (didymum × griersonianum), 'Jocelyn' (calophytum × lacteum), and 'Sapphire' (im-

peditum × 'Blue Tit').

Azaleas, too, both evergreen and deciduous, have been massed and the care with which good cultivars (varieties) have been selected for planting is very evident. The Werrington technique of hard pruning is particularly successful with the deciduous plants.

The following is a list of some of the other noteworthy plants in the Terrace Gardens and other parts of the Park. The heights given are estimated but the girth measurements are accurate:

Davidia involucrata—height 50 to 55 feet, girth at 4 feet is 72 inches.

Betula (Wilson 4106)—height 45 feet, girth 38 inches.

Prunus serrula-height 35 feet, girth 66 inches.

Magnolia mollicomata (F. 24118)—height 45 feet, diameter through branches 40 feet.

Prunus conradinae-height 50 feet, girth 59 inches.

Corylopsis willmottiae-20 feet.

Cryptomeria japonica—60 feet (Fig. 9).

Pieris formosa-many plants, 16 feet.

Camellia × williamsii 'Mary Christian'.

Camellia cuspidata 'Cornish Snow'.

Magnolia mollicomata williamsiana (F. 25655)—a 40-feet-high tree with a girth of 3 feet 10 inches which leans precariously.

Quercus engleriana—30 feet, sent from Kew as a rooted cutting.

Magnolia rostrata—30 feet.

Magnolia wilsonii—small trees with clear trunks 15 to 18 feet high with 18 feet spread.

Nothofagus dombeyi-40 feet high with a girth of 69 inches,

clean rugged trunk with flaking bark.

Stransvaesia davidiana—hedge 25 to 30 feet which had been severely pruned back to 8 feet and become well refurnished, many self-sown seedlings far and near.

Osmanthus delavayi-14-foot hedge, self-sown seedlings grow-

ing in the moss near by.

Sorbus caloneura (Wilson 956 (A))—in flower, not unlike Sorbus megalocarpa.

Sorbus 956 (B).

Betula albo-sinensis—height 55 feet, girth 71 inches (Fig. 11). Betula utilis—height 40 feet, girth 42 inches (Fig. 10).

I am greatly indebted to Commander Williams for all the help he has given to me, not only in preparing this account, but also for his encouragement during my numerous return visits to Werrington Park. While writing I have remembered, too, the wisdom of Mr. J. C. Williams and his advice to me. I have lived again with those fine gardeners, R. F. Fitt and R. M. Gregory, my father and other members of the gardens staff, particularly George Fry, who have all made their contributions to the formation of the important collection of Chinese and other plants at Werrington Park during the past sixty years.

It should, I feel, also be remembered that from Werrington

there were despatched numerous plants and seeds of George Forrest's collecting. Commander Williams has very kindly shown me a despatch book which includes mention that on March 4, 1913, plants of Rhododendron Forrest 5869 and Forrest 6775 were sent to Wisley, on June 6, 1914, seeds of Meconopsis Forrest 10404 were sent to Professor Bayley-Balfour at Edinburgh and on December 16, 1914, one Populus Wilson 4450 (*Populus wilsonii*) was sent to Sir David Prain at Kew.

SOME RHODODENDRONS IN THE WEST OF SCOTLAND

By J. S. BASFORD

(Based on a lecture given to the R.H.S. on May 4, 1965)

MOST people think of the weather in the west of Scotland as being nothing but rain and gales in the summer and frost, snow and gales in the winter. They forget that being near the sea we get very little frost and snow at low levels, and that in spite of the rain we have much sunny weather, unless we are unlucky and live next to the mountains. The winters are normally wet and mild with any spells of frost occurring in January and early February, when an air frost of 15° F. will do little harm except to a few flower buds of some of the tender rhododendrons. Spring is usually warm and dry, often with spells of several weeks without rain and the temperature over 60° F. in late April and May. This can upset any late spring planting you had hoped to do. Summer and autumn have little set pattern but are inclined to mild and damp; last November we averaged over 0.4 inches of rain per day for the month. The rainfall for the area varies from about 50 inches at Crarae on Loch Fyne to over 90 inches at the Younger Botanic Garden at Benmore; this sounds like a lot of rain and I suppose it is, but as it is generally very heavy when it falls, it is unusual to get long spells of very wet weather.

The prevailing wind is a warm south-westerly and our great enemy is the gales which seem capable of blowing at any time of the year and from any direction; the damage they do is more to the shelter than to the rhododendrons, but I have seen more than one fine species with the top of the plant bare of leaves after a gale. We are just as susceptible to late frosts as other parts of the country and this year two nights of 10° F. of air frost on the nights of March 2nd and 3rd killed all the blooms, including those on several large plants of R. magnificum at Brodick, that were in full flower, killed and damaged quite a few flower buds on such things as R. rhabdotum, R. taggianum, R. cubittii and R. genestierianum and even caught a few growth buds on R. magnificum and R.

giganteum.

Most of the west-coast gardens are situated in woodland, the exception being Crarae which is in a small open glen well sheltered by woods and small plantings of trees. The soil is generally better, too, in the woods with the accumulation of leaf mould; this is very important up at Inverewe in Ross-shire where outside the wooded area the natural soil is very hard, very acid and often very wet peat over rock. At Brodick the National Trust for Scotland is lucky in having a sandy peat with many years of old leaves added to it. With the wind problem protection is of great importance, especially for large-leaved species; overhead this is usually done by using a truly mixed wood of both hard and soft wood of mixed ages. This is fairly easy to maintain with the high natural regeneration of most trees. Then with luck, if a bad blow fells a few trees, younger ones are already growing to take their place. At the lower level the main line of defence is R. ponticum, which grows in great thickets in most woods and is a great problem to the foresters, but in June the great banks of mauve bloom are a sight to see. Other shrubs used are Escallonia macrantha, Fuchsia, Griselinia littoralis, G. lucida, Olearia haastii, O. macrodonta, O. ilicifolia, Senecio rotundifolius and Elaeagnus × ebbingii, all of which are salt resistant. On the island of Gigha Sir James Horlick has a very fine low-level protective screen of *Phormium tenax* and Sir George Campbell at Crarae has some very good screens of bamboo.

With the mild climate and high rainfall rhododendrons grown under trees in heavy shade become leggy and produce very little flower. We find that the best planting sites have plenty of wind protection round about but are open to the sun, which they seem to like, so long as there is a good ration of rain to go with it. Most rhododendrons grow well on the west coast but in the high rainfall areas the dwarfs need a really well-drained site, very little feeding and full sun to get a good show of bloom; any shade or good ground seems to send them to growth. But give R. magnificum a sunny hollow among the R. ponticum and it will put on a foot or more of growth a year, and when fifteen to twenty years old will

give a good display of bloom in the early spring.

When I first came to live in the west of Scotland I expected that with the warm wet climate we should be troubled with autumn flowering. However this is not very bad, and the chief offenders are R. wardii and the 'Lady Berry'-'Lady Chamberlain' group of hybrids. The real surprise of the area is the autumn colour with the deciduous azaleas colouring nearly as well as they do in southeast England, and, what is even more surprising, is the fact that

the colour is very nearly as good in a really wet autumn as in a

dry one.

The only pests on the rhododendrons I have seen are the Leafcutter Bees who have a taste for the foliage of the best trusses of bloom-or so it seems when I am cutting for a Show. The real killer is the Honey Fungus (Armillaria mellea) which accounts for one or two plants in each garden every year. The bootlaces can be found in the woodland soils practically anywhere, but I understand that for them to attack a healthy plant the roots have to be damaged and I think this may be the reason why we lose so many plants on the west coast. The two most common methods of root damage are drowning of some of the smaller roots during a spell of very wet weather and the breaking of some roots due to sway in a gale, both of which may not show in the general appearance of the plant. Bud blast is not very bad and seems hardly to increase. I have seen it on Rhododendrons maddenii, crassum polyandrum, arizelum, falconeri, fictolacteum and some hardy hybrids, but never on R. ponticum although when I lived in Cumberland there was at least 20 per cent infection of the ponticum in that area. Lichen is a problem in some areas, but I feel that the cure in a good many cases is to encourage the plant to grow strongly by liberal top dressings, and particularly with azaleas, pruning out the old wood right to the base of the plant.

With the high rainfall and moist air there is a lot of natural regeneration in most gardens and most of the moss-covered rocks and tree stumps have their colony of seedlings. Provided the worst of the weeds are pulled out such seedlings grow very well, quite often far better than the seedlings you are trying to raise with great care in the frame or nursery. I suppose we should not keep these seedlings, but I have seen Rhododendron ciliatum, johnstoneanum, lindleyi, taggianum, glaucophyllum and megacalyx all in flower, raised from self-sown seedlings, and all to my eyes looking exactly like their parents. You do of course get a good many hybrids, especially from R. decorum, R. vernicosum, R. fortunei and R. griffithianum but these as a rule make very showy plants good for mass planting. There is one thing that these seedlings are really useful for and that is stocks for grafting. At the Royal Botanic Garden in Edinburgh, they tell me that one has a much better chance of success if the stock is of the same series as the scion and they are always pleased to have any spare seedlings at the Garden.

The oldest rhododendrons on the west coast are about a hundred years old and came from seed collected by Hooker; most of these

plants are at Stonefield near Tarbert on Loch Fyne. There are also odd plants of the same age, such as the magnificent R. falconeri in the Gibson brothers' garden at Rhu. Most of the gardens we see to-day were started early this century and as many of the owners subscribed to the expeditions to the Himalayas there is a very strong bias towards species. The Scottish National Trust's gardens at Brodick Castle were started by the late Duke and Duchess of Montrose, who in the 1920's had the late Sir John Ramsden staying with them; Sir John liked the look of the ground which was then outside the formal garden and promised to send up some species of rhododendrons to try out. In due course a "Puffer" load of plants arrived which were given a temporary home in a small glen about half a mile from the main garden while the ground was cleared of some trees and ponticum, and walks made. Most of these plants were moved to the Woodland Garden by the Castle, but to this day there are still about a dozen plants of R. magnificum and R. giganteum growing among the ponticum up this glen. They are to-day some 20 feet high by as much across and most years are a mass of bloom in early spring, being a bit later flowering than the plants at a lower level in the main garden. West-coast gardens still contain mainly species but there is a growing interest in good hybrids and many owners are not only buying in the newer hybrids but also using the many good forms of species to raise their own hybrids. At any Show, or in the west-coast gardens, you will see quite a big collection of hybrids that are very near the species, but definitely not a variant of the species; these can be very good, as in the case of Sir George Campbell's niveum hybrid 'Crarae' which, along with the Brodick meddianum hybrid,* was recommended for an A.M. at the Scottish Rhododendron Show this year. They can also be pretty poor, as some of the near campanulatum, arboreum, magnificum and orbiculare of poor colour show only too well. I suspect that many of these plants originated as self-sown seedlings and were kept because the foliage was near that of the parent or were given away in the genuine belief that they were true to their good parent.

Of the many rhododendrons that do well on the west coast I think the members of the *Grande* and *Maddenii* series are particularly outstanding and flourish in most gardens. Of the *Grande* series by far and away the best plants are those grown in full sun and as free from wind as possible, as most of them quickly defoliate if exposed to a gale. I have seen several large-leaved rhododen-

^{*} Now named 'Machrie'.



Photos: J. S. Basford SOME RHODODENDRONS IN THE WEST OF SCOTLAND

Fig. 12.—*Rhododendron lindleyi* at Brodick Castle, Isle of Arran (see p. 27)
Fig. 13.—*Rhododendron rhabdotum*, a showpiece in the garden at Brodick Castle, given a mild winter (see p. 28)



Fig. 14.—*Rhododendron* 'Mecca', A.M. May 4, 1965. Exhibited by Mrs. Douglas Gordon, Hethersett, Seale, Surrey (see p. 165)



Fig. 15.—*Rhododendron mucronulatum* 'Cornell Pink', A.M. March 30, 1965. Exhibited by The Director, The Royal Botanic Gardens, Kew (see p. 165)



FIG. 16.—Rhododendron lindleyi 'Dame Edith Sitwell', A.M. April 13, 1965. Exhibited by Geoffrey Gorer Esq., Sunte House, Haywards Heath, Sussex (see p. 165)

drons that have outgrown their shelter and have had their tops stripped bare by the first gale; however this doesn't seem to bother them much, as they soon grow a new top the next spring and put on about three-quarters of the growth that the protected part of the plant puts on. I think that the most tender member of this series is R. giganteum, whose terminal growth buds and new growths are very susceptible to frost damage; even a heavy dew and bright sun in an early morning will scorch the young leaves and a night frost of 10-12° F. below freezing point in winter will damage or kill growth buds. The saving grace for R. giganteum is the fact that the secondary buds are never damaged and they quickly develop, so that by the end of June, apart from smaller leaves and a twist in the new growth, you cannot tell where the frost damage has been. The flower buds seem to be fairly frost resistant, the only damage occurring when there is a nip of frost in late March as the buds are opening. Like many rhododendrons they seem able to stand frost until the bud scales have opened enough to show the corolla. The first R. giganteum flowers in this country were in Major Campbell's garden at Arduaine on Loch Melford in 1935 and a plant at Brodick Castle received an F.C.C. in 1953 under the number Forrest 19335; this plant still flowers well but not every year. The large fuchsine-pink flowers coming in March are a very welcome addition to the early-flowering rhododendrons. but to my mind it is equally attractive in late April and early May when the bright scarlet bracts that cover the growth buds elongate and cover the plant with scarlet candles (Pl. 3).

R. magnificum, which must be very near to R. giganteum—the main difference to a gardener being a narrower leaf with a frosted grey indumentum on the underside—is much hardier and much more floriferous, many plants flowering regularly every year. It is even earlier flowering than R. giganteum, often being in full bloom by the end of February although growth does not start until the end of April. You must not be in a hurry for either of these to bloom, one plant of R. magnificum at Brodick took thirty-three years at

least to flower and has not missed a year since.

R. grande seems to vary a lot both in flower and foliage; the best forms to my mind are those with either deep cream or flesh-pink flowers, the commonest form being that we used to call "R. argenteum" with pink flowers and a silver reverse to the leaf. This plant is very sensitive to wind damage and not only loses most of its foliage when moved to a windy site but never becomes acclimatized as many rhododendrons with medium foliage will do if given

really good growing conditions. R. macabeanum does very well all the way up the west coast, being one of a few rhododendrons that will grow and flower well under trees although they do get a bit leggy. Unfortunately there are quite a few plants with blooms rather a poor cream colour, but these as a rule have a very large truss and make very showy plants for the garden but are no use for the Show bench. Where there is no "dead heading" it produces masses of seed which come up all over the garden, but from what I have seen of these seedlings the species must cross very freely.

R. mollyanum, named after the late Duchess of Montrose, by the late Dr. Cowan, was grown at Brodick Castle for some time as "Pink Grande" before being given its present name. Like many species it varies greatly, the best form having a large truss of deep pink flowers with a dark crimson blotch in the throat and fading very little with age. The worst is a poor truss of pale pink flowers, with a very small crimson blotch, fading quickly to a dirty white. This plant has particularly good foliage, the leaves being 16 to 19 inches long and 3 to 4 inches wide compared with 10 to 13 inches long and 4 to $4\frac{1}{2}$ inches wide of the better flowered type. As R. mollyanum does not come into growth before late May it misses the late frosts, but with the flowers appearing from mid-February these can very easily get nipped once the corolla is exposed.

R. praestans is by far the most wind-resistant of the series; with just a little protection it makes a dense shrub and after a gale only a few of its dark green leathery leaves with their short strong petioles will show any damage. The flower, which comes in April, is often a poor washy pink with a deep crimson blotch but there are good forms with both pink and deep magenta flowers also with a crimson blotch.

R. protistum is supposed to be in the gardens at Brodick Castle and also at Arduaine but I have never seen it in flower as yet; as it is very like R. giganteum it could be among the unflowered plants of R. giganteum in other gardens. At Brodick there is at least one plant over 20 feet high and unflowered as yet, showing some grey-ish-green indumentum under its leaves, but this of course could have come from a little R. magnificum blood. I have hopes of it flowering one day and being able to get positive identification.

R. sidereum, the best of this series along with R. mollyanum and R. sinogrande, is uncommon up the west coast, as apart from a couple of specimens at Logan and Stonefield the Brodick plants are the only flowering plants that I know. Flowering in May it is the last of the series to bloom; the blooms with a deep crimson

blotch at the base open a pale flesh-pink, turning a deep lemonyellow with age, a similar process to that which the well-known hardy hybrid 'Goldsworth Yellow' goes through. Here is a bloom that improves with age and doesn't fade like so many of the pink-

flowered species.

Last and by no means least we have R. sinogrande, which is well represented in all the gardens and in many cases has reached the small tree stage. Having learned my rhododendrons in the Midlands and south-east England, the thing that struck me about R. sinogrande and its relatives is the shape of the plant. Not the upright growing plant with its umbrella at the top and a few trusses you can hardly see from the ground, but at their best beautifully shaped plants, often broader than they are tall with flowering branches down to ground level. One plant of R. sinogrande at Brodick is 27 feet high and nearly 30 feet across and hasn't missed covering itself with bloom for the last seven years. Flowering in late April there is quite a wide variation to be seen in the size of truss compared with the foliage; unfortunately the best foliage never seems to go along with the best blooms, even on the nonflowering shoots. There is a very compact form under K.W. 8130 which has a medium-sized leaf and truss, and flowers well every year. R. sinogrande regenerates very freely where it is allowed to seed; of quite a few seedlings I have grown on I doubt if one is pure, but they do make magnificent foliage plants even with doubtful parentage.

In the *Maddenii* series I think that the species that really stands out in most gardens is *R. lindleyi*; in late April and May its sweet lily-like scent is often encountered long before the plant is seen, and the white, yellow-throated blooms are well worth careful inspection. There seem to be two main forms in cultivation, the first is that grown at "Glenarn" and very freely distributed by the Gibson family, which produces a nice bushy plant that flowers at the end of April. The flowers are white with a deep yellow blotch in trusses of four to eight and sometimes ten blooms and very sweetly scented. The second form produces a typical straggly plant, that either wants growing in groups or through other rhododendrons; the flower is slightly longer, in trusses of from two to six, again white with a blotch and scented, but thick and waxy in texture. Both forms are reasonably hardy and come through all

but the worst of winters undamaged (Fig. 12).

In the same subseries R. megacalyx is equally hardy and flowering mid- to late May follows R. lindleyi; R. megacalyx produces

a bushy plant when grown in full sun and the pure white flowers have the typical scent of the *Maddenii* series; the very large pinkish green calyx shows off the blooms very well and is quite decorative until it turns brown in autumn or is removed when dead heading. This plant is very free with its children, and all those that I have seen grown to flowering size appear to be true to type.

R. dalhousiae grows well and gives a good show of bloom providing the winter is reasonably mild. With the March frosts this year all the flower buds are brown and quite dead. The only form that seems to be in general cultivation has flowers that open limegreen quickly fading to white or pale cream. I am still hoping to find the white, flushed-pink form mentioned in the Rhododendron Handbook.

R. taggianum, like several others in this series, is at its best grown through other rhododendrons as it makes a very leggy shrub 7 to 10 feet high and with very few branches. I have tried stopping young plants but they don't like it and only produce one and very rarely two shoots. It is fairly hardy but quite often after a severe winter or late frost the blooms fail to open properly or are much reduced in size. The real showpiece of this subseries, given a mild winter, is R. rhabdotum with its scarlet-striped 5-inchlong trumpets; in July it is well worth a visit to any garden to see. Unfortunately it is very flower-bud tender and I have seen growth buds and foliage badly damaged. As it grows very happily with and through other rhododendrons I am experimenting at Brodick with a batch of seedlings planted throughout the grounds in the hope that one or two plants will escape damage every year (Fig. 13).

In the Maddenii subseries R. crassum, R. maddenii, R. manipurense and R. polyandrum are all widely grown and providing they are given a sunny situation do not seem to mind the wind and produce tight well-rounded plants that flower well every year, not a bit like the dense straggling thickets up to 10 or 12 feet high that they make when grown with shelter and some shade. R. crassum is the strongest of the four and will make a bush up to 12 feet high by at least the same across. It is covered in June with many sweetly scented white flowers which unfortunately don't last long in warm weather, but as all the buds do not open at the same time many of the plants carry flowers for at least a month. R. maddenii always seems to make a more compact bush than R. crassum and apart from the normal white-flowered form there is one with beautiful pink flowers and another with large flowers, pink on the outside and white on the inside. R. manipurense to me is just a large-leaved

form of *R. maddenii* that grows and flowers equally well. *R. poly-andrum* stands out from the others with its brownish-green foliage with cinnamon scales on their reverse side. There are two noticeable forms, a very beautiful one with yellow flowers grown by Sir James Horlick and rather a floppy one that grows well on some of the banks at Brodick Castle.

In the Cilicalyx subseries R. ciliatum and R. johnstoneanum are well represented in all gardens, R. johnstoneanum making large spreading bushes covered with cream, slightly fragrant blooms in early May. Unfortunately it does not always escape the frost which may cause death or distortion of the flowers. The double and semidouble forms are equally bud-tender, but under normal conditions give a good show in the open. The large group in Brodick Castle Gardens from a planting of three plants is now 11 feet high, 91 feet in circumference and a sight when in full flower. Other members of this subseries grown in the open include R. burmanicum, which although bud-tender is well worth a trial. R. carneum seems to take some time to establish itself and is again bud-tender. R. cilicalyx, R. cubittii, R. formosum, R. inaequale, R. parryae and R. scottianum, are all tried with some success and it is worth waiting for a mild winter to see them in full bloom. R. iteophyllum appears to be much hardier than the above in spite of what the Handbook says. A stock at Brodick Castle that came from the Royal Botanic Garden in Edinburgh has small leaves 2½ to 3½ inches long and only 3 of an inch wide; the flowers which open in late May are white with a pink tinge and cover the small rounded bush. R. supranubium is nearly as hardy as R. ciliatum and makes a good show at the end of May; one attractive form has flowers that are a pinkish brown on the outside and can be seen at Logan, Crarae, Gigha and Brodick Castle. Of other rhododendrons that are particularly notable on the west coast R. arboreum and its near relative R. delavayi are very striking (Pl. 3), most gardens having mature plants of the blood-red arboreum and my favourite of all reds R. delavayi, which does particularly well at Lochinch Castle, Crarae and Brodick Castle. R. arizelum is generally seen in its pink form and not the cream or white form that is so often seen in southern England. The best form of all is the Earl of Stair's var. rubicosum, which has crimson flowers that hardly fade at all, whereas R. arizelum 'Brodick' does fade with age. R. bullatum, the earliest of the sweet-scented rhododendrons, grows and flowers well everywhere, and although the white forms are the most common there are some beautiful pink forms. One at Brodick

Castle doesn't flower until early June and is white inside the flower

and deep pink on the reverse.

The late-flowering species do particularly well with an open mild autumn, often with no frost before Christmas, in which to make next year's buds. R. eriogynum, flowering in late June, is particularly striking when you see a large plant covered with its bright red flowers. R. auriculatum does well, making a tree up to 20 feet high but needs full sun if it is to flower well. As in other areas some plants are an unhealthy yellowish green in colour. I have even tried a seaweed top dressing on them with no results and it certainly puts colour and growth on other shrubs.

All the west-coast gardens are either open to the public under Scotland's Gardens Scheme or are owned by the Scottish National Trust. Many are within easy reach of the main cities, with trains and boats organized for day visits. I hope that what I have said and shown you to-day will encourage you to come and

see these gardens.

THE GARDENS AT ARDUAINE

By ILAY CAMPBELL

Twas in 1898 that James Arthur Campbell, having retired from Ceylon where he had been a tea planter for most of his life, hit on a novel method of choosing a home. As a member of one of the oldest branches of Clan Campbell, the House of Inverawe, it was natural that he should wish to return to his native Argyll. Moreover, he had spent his youth on Lochfyneside, where his father, Alexander Campbell of Auchendarroch, had planted numerous exotic trees and shrubs in that salubrious climate, thus arousing his son's early interest in the science to which he was eventually to devote a great deal of his time.

He therefore decided to search for a property which had potential scope for the development of a woodland garden, and to this end he and his wife spent the summer cruising in a yacht exploring the many lochs, sounds and islands which form the coastline of Argyll. Whenever they spied a likely spot, they would make en-

quiries as to land available for purchase.

Eventually they arrived in Loch Melfort, certainly one of the most beautiful of all, and here their search was destined to end. They saw a green peninsula jutting out into the loch backed by an almost complete semi-circle of comparatively low hills giving shelter from the north and east. The estate, then known as Asknish, chanced to be for sale and the deal was soon completed on the condition that the name was changed. Thus Arduaine, now famous wherever gardeners gather together, was born.

The name in Gaelic means green point and green it is indeed, for the soil is deep and fertile, ideal for gardening and farming, both of which pursuits have been and still are carried on by suc-

cessive members of the family.

Delays of one kind and another held up the completion of the new house, but by 1905 the family were installed, and gardening

operations were well under way.

Originally it had been decided to concentrate planting in an area close to the house, but this plan had to be abandoned because of exposure to the south and west. In coastal Argyll shelter from wind and salt spray are of first importance, and had trees been planted

for this purpose between the house and the loch, what must be one of the most beautiful views in all Scotland would have been spoiled.

Thus the garden was formed some way from the house but near the shore where the danger from such frost as is experienced in

these parts would be minimized.

In this position it was only possible to grow the more tender shrubs, particularly rhododendrons, in the shelter of a wood, and therefore trees, both conifers and broadleaved, were planted. Protected by these flourish the magnificent plants for which the garden is famous.

From the house a grass path bordered by flowering cherries descends a gentle slope to the garden gate, and here an indication of what is in store is at once gathered by the enormous size of the *Griselinia littoralis* which form part of the protective planting. All over the garden, in fact, these massive giants catch the eye, surrounded as often as not by thousands of their seedlings.

Through the gate the visitor comes first to what was originally the more formal part of the garden. Changing circumstances and the lack of a full-time gardener's hand, have banished formality but in the border which lies to the right of the path many well-

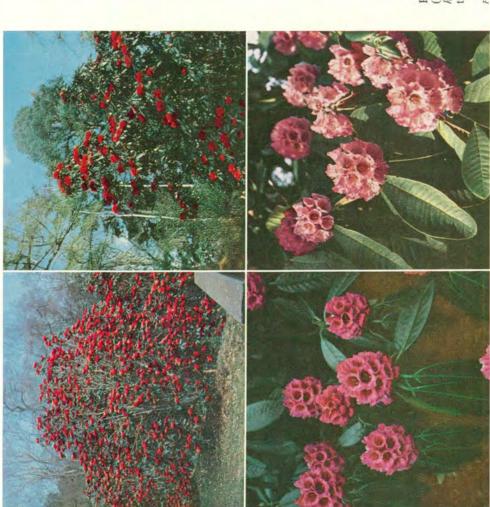
grown plants immediately attract the discerning eye.

First to claim attention is the pure white-flowered form of *Rhododendron decorum* which has such a sweet scent in late May, then an equally fine plant of *R. campylocarpum elatum*, the finest form of this beautiful species and one which has been the parent of many good hybrids. Here, too, is a yellow-flowered bottle-brush *Callistemon salignus* and both the red and the more commonly seen white forms of *Leptospermum scoparium*. White and mauve abutilons grow well, some, quite old plants, which is unusual, as they are so often short-lived.

Among the rhododendrons are R. 'Blue Diamond', R. 'Lady Chamberlain', R. glaucophyllum, a form with larger flowers than usual and, in front of a small glasshouse, a particularly good plant of R. 'Fragrantissimum' flowering much later in the year than other

specimens of the same hybrid at Arduaine.

At the foot of the border there is a fine eucalyptus of uncertain species. It is possibly a natural seedling from an older plant elsewhere. The beautiful silvery foliage makes a perfect foil for a group of five rhododendrons 'Cornubia', in appearance one magnificent bush. They were originally planted in nursery lines and never moved, thus all are entangled with each other. Nevertheless they



the F.C.C. form of *R. giganteum* at Brodick Castle (bottom right) (see p. 25) -Rhododendron thomsonii at Glenarn (top left); R. delavayi (top right) see p. 29; R. hodgsonii at Inverewe (bottom left); close up of RHODODENDRONS IN THE WEST OF SCOTLAND

Photos: J. S. Basford





Photos: W. C. Collyer

DIETRICH HOBBIE'S HYBRIDS

PLATE 4.—*Rhododendron* 'Elizabeth Hobbie', a hybrid between *R. forrestii* var. *repens* and *R.* 'Essex Scarlet' raised in Germany by Herr Dietrich Hobbie (see p. 40)

PLATE 5.—Rhododendron Ursula Siems 'Moerheim's Scarlet', the result of crossing R. forrestii var. repens with R. 'Earl of Athlone' (see p. 40)





Photos: J. E. Downward

Fig. 17.—Rhododendron oreotrephes at Lamellen in N. Cornwall

Fig. 18.—An overgrown nursery, flanked by an old plant of a *Rhododendron decorum* hybrid at Lamellen



Photo: Mrs. I. A. Campbell



Photo: Ilay Campbell

THE GARDENS AT ARDUAINE
Fig. 19.—*Rhododendron dalhousiae* at Arduaine

Fig. 20.—Pachystegia insignis. A remarkably fine plant growing at Arduaine (see p. 38)

have achieved a height of some 30 feet and in early spring are a wonderful sight with their large compact trusses of pillarbox-red flowers. Among them is a plant of *R. hodgsonii*, one of many in the garden. Constricted as it has been it has still made a fine plant and

flowers well each year.

At this point the path turns right and westward towards the "Wood" and just opposite the turning is a really wonderful specimen of the Handkerchief Tree, *Davidia involucrata*. It must be 30 feet high with a spread nearly as great, and there are few years when it does not oblige with many hundreds of the unique pendant bracts which give it its name. In front of this there grows a most attractive escallonia labelled *E. phillipiana*, a synonym for *E. virgata*. It has thousands of tiny pure white star-shaped flowers in July which show up particularly well against the shiny dark green foliage.

In this area, too, is a vast *Pittosporum tenuifolium*. As with the Griselinias the ground beneath it is thick with its offspring. *Myrtus luma*, *Eucryphia cordifolia* and *Gevuina avellana* are three more evergreens equally handsome and of unusually large size. The lastmentioned is often badly cut by late frosts in Argyll but here, even the bad winter of 1962–63 did little damage to this 30-foot mam-

moth, in spite of full exposure to the north.

The path now swings southward and opposite is a remarkable tree of Magnolia denudata (conspicua). In May before the leaves appear, the grey, somewhat contorted branches are set off by the many white flowers. Seen against a blue sky it makes an unbelievably lovely sight. Next door is Acer monspessulanum, its rather curving trunk rising to about 15 feet before dividing into three main branches. The top of this fine tree is going back somewhat

but it is coming away strongly from the base.

To the left of the path can be seen a large plant of that valuable old rhododendron hybrid, R. 'Nobleanum'. This one flowers continuously from August to February. Two more handsome magnolias, one to the right and one to the left, next catch the eye. The first is M. obovata (hypoleuca) which must top 50 feet in height and produces its rich creamy flowers with deep red centres over a long period in June, July and August. The other is M. campbellii, a truly majestic tree, but owing to the rather too sheltered position in which it grows it does not get enough sun to flower freely and thus only bears its porcelain-pink blooms on the very topmost branches. Just in front of this magnolia grows what is one of the most remarkable rhododendrons at Arduaine; it is R. auriculatum,

30 feet high by 35 feet across. This lovely August-flowering species is an asset in any woodland garden, but it is very susceptible to the effects of cold winds and will not give of its best unless well sheltered from all directions. Beside it, a young *Picea smithiana* (morinda) is just beginning to develop the typical drooping habit of its kind. Garrya elliptica, 25 feet high, is another plant worthy of notice.

Before entering the "Wood" it might be as well to give some

account of the history of this part of the garden.

As has been mentioned the trees were planted at the turn of the century and the shrubs soon afterwards, thus the shelter and the sheltered grew up together—the intention being that as the latter increased in size and vigour, the former would be thinned out to allow room for natural growth. For various reasons, not least being two world wars, this plan was never carried out fully, and the result has been that the trees have been drawn up and are thin and spindly and the plants have not developed as they would have done in less cramped positions. Some too, which were planted rather too close together, have grown into each other, and others, which in nature would have formed compact bushes, have tended to struggle up to uncharacteristic heights.

But this does not mean that there has not been a continuity of interest in the garden. When James Arthur Campbell died in 1929, he was succeeded by his son, Sir Bruce Campbell, whose wife, an enthusiastic gardener, maintained her father-in-law's interest in plants. The present laird, Major Iain Campbell, and Mrs. Campbell, are both experts in various aspects of horticulture, though their many other activities leave them less time than they would like for the garden. Over and above the family, mention must be made of Nanny Yule. Coming to Arduaine to look after the present owner and his sister when they and the garden were in their infancy, she stayed on when nursery days were over to give her full-time attention and expert knowledge to the garden. She only retired two years ago to her own little house in Benderloch.

During the last war and afterwards a series of severe gales caused much havoc. Many plants were damaged by falling trees, while wind and salt spray penetrated the "Wood" through the

gaps thus formed.

In the last few years, however, large scale-rescue operations have taken place; clearing and judicious removal of some overgrown plants has given space for the development of those remaining. Careful thinning has provided room for new plantings, and it is now possible to see these really inspiring shrubs to their full ad-

vantage.

Entering the "Wood" the path veers to the left and a very tall escallonia is seen. It has white flowers, three enormous main trunks and is probably a hybrid. Its effect is greatly added to by *Tropaeolum speciosum* which clambers through and over it in startling

profusion as it does in places all through the "Wood".

Further on are two more interesting rhododendrons. R. griffithianum, 20 feet high and spreading to as much in width, remains unharmed by the severest winter weather and flowers freely most seasons. R. zeylanicum was raised from seed brought back by James Arthur Campbell from Ceylon. There are many great specimens of this rather tender, late-flowering member of the Arboreum series at Arduaine. This particular one has two trunks which run closely along the ground, the side branches layering themselves in the soft peaty soil.

Other rhododendrons are R. keysii, R. triflorum with its chestnut brown, peeling bark, R. macabeanum, perhaps the loveliest of the

big-leaved tribe, and R. cinnabarinum roylei.

A little further on is a really gigantic *Drimys winteri*; layers have rooted themselves by the dozen all round and are now sizeable plants. None have been successfully moved, although many attempts have been made.

At Arduaine, though many genera are represented, it is undoubtedly the rhododendrons which impress the visitor most, and it is at this spot in the "Wood" that some of the finest specimens

of all can be admired.

Not least among them is a grove of *R. arboreum*, many well over 30 feet high with flowers of all shades from red, through graduations of pink to almost pure white. These trees—they can be called nothing less—have trunks of vast size, soaring up towards the light, their branches, weighed down with bloom in March and April, cascading from the heights to within a few feet of the ground. The fairly dense shade in which they grow seems not to inhibit them in the least.

Near this remarkable group grows a superb example of the tender *R. giganteum* 20 feet high by 25 feet across. This species is notoriously difficult in most mainland gardens, though it flourishes with almost overpowering vigour at Brodick in the Isle of Arran. The Arduaine plant has the distinction to be the first of its species to flower in the British Isles, and only the second to flower, in cultivation, in the world.

Among other notable members of the Falconeri and Grande series are R. sinogrande (36 feet high), R. falconeri, once an impressive plant, but now, alas, beginning to go back, R. hodgsonii, a form with unusually deep coloured flowers, over 20 feet high, and two glorious examples of R. rex—very akin to the more often seen

R. fictolacteum, but larger in all its parts.

Although a walk through the "Wood" at Arduaine is an exciting experience for any gardener with surprises round every corner, yet reading an account secondhand where each plant is mentioned, but not adequately described, can be a tedious procedure. Therefore many of the interesting plants growing here must be omitted. A few, however, demand inclusion. Among them is a 20-foot-high specimen of *R. meddianum*, and *R.* 'Shilsonii', that wonderful hybrid between *R. thomsonii* and *R. barbatum* which excels both parents.

A part of the "Wood" which has recently been drastically cleared is now reached. At one time it had been a nursery in which a large number of young plants of *Tricuspidaria lanceolata* (Crinodendron hookerianum) had been lined out. These, never having been moved, had grown into an impenetrable hedge some 30 feet high, and swamped, choked or mutilated everything growing in the vicinity. They have now been cut down, disclosing the lovely peeling grey boles of a small grove of eucalyptus (probably *E. gunnii*) which, though they are sizeable trees, had been almost completely obscured from view.

Other discoveries have been sadly drawn up, but are perfectly healthy. Clethra delavayi and a nice plant of the old, but not to be despised, pink rhododendron hybrid 'Dawn's Delight' are among

them.

It is intended to plant low-growing rhododendrons in this area and behind, in a newly thinned and hitherto unused section of woodland, a start has been made with a collection of large-leaved

species and hybrids.

Before leaving the "Wood" a few more plants of interest must be noted. They include a large rhododendron crassum, the last to flower of this species at Arduaine, Aristotelia racemosa from New Zealand, a fine red hybrid between Rhododendron griffithianum and R. arboreum, R. habrotrichum, a self-sown R. zeylanicum, which has a much larger truss than usual, and a mass of R. griersonianum.

There are two ways out of the "Wood", one at the point already described and the other, a little higher up, which leads to a further and altogether more open part of the garden, planted on a steep south-east facing slope with little protection from the wind. As might be expected the plants growing here have not, for the most part, the same lush appearance as those in the shelter of the trees, but there are several notable specimens none the less, those of a more robust nature now providing protection for their more delicate neighbours. Eucryphias flourish here, both the evergreen E. lucida and the deciduous E. glutinosa. This genus is invaluable in August and September when there is little else flowering in the woodland garden. Cryptomeria japonica var. elegans writhes and rambles about in its typically snake-like manner, greatly helping with the shelter problem, a fine Rhododendron edgeworthii scrambles over the side of the hill, Salix lanata and Rhus cotinus provide contrasting grey and purple foliage effects and Embothriums add colour in June. A path winds to the top of the hill from which there is a breathtaking view over the garden to the loch beyond dotted with dozens of small islands, and on past Luing and Scarba to the Paps of Jura rising, mysterious, in the distance.

The only part of the garden now remaining to be explored is that area which lies south and east of the original entrance to the "Wood". It is low-lying and flat, and although there is adequate shelter provided by Griselinias, bamboos, Olearias and coniferous

trees, it is apt to be rather a frost pocket.

There are, however, many remarkable plants. Two specimens of the tender, late-flowering *Rhododendron kyawi*, one 10 feet high, have survived the winter of 1962–63 and, although they obviously sustained a nasty shock, are making a spectacular recovery. The largest *R. zeylanicum* with no less than eleven main stems over 20 feet high, is a sight to behold. Even when not in flower its leathery, deeply ridged dark green leaves make it an outstanding shrub.

Through this part of the garden runs a small burn, the edges massed with primulas, *P. japonica* and the yellow *P. helodoxa* among them, the burn ending in a rocky pond. There are paths on either side, bordered with shrubs and trees of all shapes and sizes of which there is only space to mention a very few. *Corokia cotone-aster* with its tiny leaves and myriad bright yellow flowers spectacularly overhangs the water. Other notabilities hereabouts are *Disanthus cercidifolius*, the leaves of which turn the colour of port in autumn, *Drimys aromatica*, a many-stemmed *Olearia forsteri*, *Rhododendron campanulatum* and *R. manipurense*, *Salix magnifica*, whose large leaves are often taken for those of a magnolia, and that lovely spruce, *Picea likiangensis*, with brilliant red new growth

and grey cones. These are only a handful of the wonders to be admired.

Back now towards the gate, on the last lap of the tour, past another small circular pond, surrounded by primulas and bergenias, in which thrive a colony of Arum lilies, to the rock garden, where grow an astonishing number of diverse and unusual subjects. Dwarf rhododendrons abound, including R. hemitrichotum, R. lepidotum, R. fastigiatum, R. glaucophyllum, R. pemakoense, the rare R. leptothrium, one of the two at Arduaine, and two plants of a most remarkably fine form of the lovely azalea, R. schlippenbachii. Here, too, are Fuchsia microphylla, Sempervivum malbyi, the foliage deep crimson, the flowers pink, Globularia bellidifolia with blue "powder puff" flowers, Vaccinium nummularia and a really striking dwarf conifer Cryptomeria japonica 'Argenteovariegata', in which the young growth is pure white.

But undoubtedly the most astonishing plant of all is the great, spreading, healthy specimen of the usually irritatingly difficult Olearia (Pachystegia) insignis. The silver-grey foliage and the flower buds, carried on stiff upright stalks, are alike covered with white down and the plant at this stage is so beguiling that it is quite an anti-climax when the buds open and the rather ordinary

daisy flowers are revealed (Fig. 20).

The all-too-hurried tour is now at an end, and it has not been possible to do more than hint at the wealth to be discovered at Arduaine.

As a garden, it may not altogether please those who value order and system above everything, or those who think in terms of elaborate landscape design and carefully contrived colour schemes. But for those others who enjoy seeing unusual plants, happily thriving in conditions which suit their requirements to the full, a visit to Arduaine is an experience to be treasured for a lifetime.

DIETRICH HOBBIE'S HYBRIDS

By O. C. A. SLOCOCK, V.M.H.

THE rhododendron garden of Herr Deitrich Hobbie lies in pinewoods growing on what appears to be solid peat for many feet, and situated in Oldenburg. When I visited it about 1950 I was amazed at the vast number of crosses and seedlings in nursery beds that he had raised. There was practically no glass and in spite of the very severe winter of 1946–47 he had a fine collection to work from.

Although he has made some odd crosses to which I will refer later, his main objective has been to raise a race of hardy plants that would withstand the mid-European winters and provide plants of moderate size suitable for the smaller garden or a front

row to taller borders.

To this end he concentrated on crossing the hardy European or North American varieties with repens and williamsianum. Those that I brought back to try in England were mainly hybrids of repens with such hardy Reds as 'Britannia', 'Essex Scarlet', 'Mme. de Bruin' and 'Prometheus', and after fifteen years they form a bed of dense bushes up to 3 feet, flowering freely in early May in shades of red. There is a good deal of variation in each cross as may be expected, and a good deal of selection is necessary to find the best.

Herr Hobbie has wisely collaborated with other growers in doing this and his seedlings have been tested in several Dutch and English nurseries after a preliminary selection in his gardens.

I quote Mr. Ruys of Moerheim Nurseries, Dedemsvaart: "Some years ago Mr. Hobbie sent us 32 different types of his crossings in order to select them for him and to put them on the market afterwards. We selected three which showed in the course of the years that they were free-flowering, even as young plants, and that they were hardy for the continental market." The same thing happened in other nurseries where others quite distinct were selected, probably from the same crosses which have been named by Dietrich Hobbie. First of all may we deal with the *repens* crosses, of which there are nine mentioned in the 1964 Rhododendron book. Of these Elizabeth Hobbie ('Essex Scarlet'), Ursula Siems ('Earl of

Athlone'), Ostfriesland ('Mme. de Bruin'), Gertrude Schale ('Prometheus'), Ems ('Purple Splendour') are the most successful, and a number of clones of these have been tested and named by several growers and are now being widely distributed. The various clones of ElizabethHobbie that are grown are all good hardy closegrowing specimens that flower very freely with scarlet trusses (Pl. 4). One such variety is 'Scarlet Wonder', another is 'Moerheim Jubilee', whilst others keep the name Elizabeth Hobbie. There is very little to choose between them. Ursula Siems is perhaps the best cross and its variety 'Moerheim's Scarlet' is excellent and very free flowering, and will only grow a few feet from the ground (Pl. 5). The other named varieties from these crosses—'Badielsen', 'Axel Olsen', 'Baden Baden'—are all reds with various characteristics of foliage, but all are semi-dwarf, and are certainly good hardy garden plants.

Ems (repens × 'Purple Splendour') strikes a different colour of deep wine which is very pleasing. If we were to compare some of the British hybrids one immediately thinks of 'Elizabeth' and its varieties 'Creeping Jenny', 'Ethel' and others, and these are undoubtedly better where they can be grown but do not compare in hardiness with the Hobbie crosses, which I must recommend for the less fortunate gardens where severe frost may occur, and it is fortunate that all the repens and williamsianum hybrids may be

grown from cuttings.

With williamsianum Hobbie made many crosses and sixteen are listed in the Rhododendron book. The cross with 'Campdis' is a pleasing hybrid and his cross with discolor which he named 'Oldenberg', though not so squat and free flowering as some of

the others, is a blush-pink hybrid of charm.

One of three hybrids chosen from the thirty-two picked seedlings sent to Mr. Ruys is a cross with 'Genoviva', an old hardy pink hybrid not seen in this country. This he named 'Moerheim's Pink' and it grows as all good williamsianum hybrids into a dome-shaped bush of 4 feet, flowering end of April or early May with flowers the colour of 'Pink Pearl'. R. 'Willbrit' and 'Oudijk's Sensation' are two names given to close-growing williamsianum hybrids by Le Feber of Boskoop. Other ones that must be mentioned are 'W. S. Reuthe' (a cross with 'Staring') and 'Dr. Karl Forster' (a cross with 'Mme Fr. J. Chauvin')—a pink Award of Merit rhodo. Many of these repens and williamsianum hybrids are under trial in the Rhododendron Trials at R.H.S. Wisley, and I hope we shall see others. We can rely on the fact that they will be free flowering and hardy.

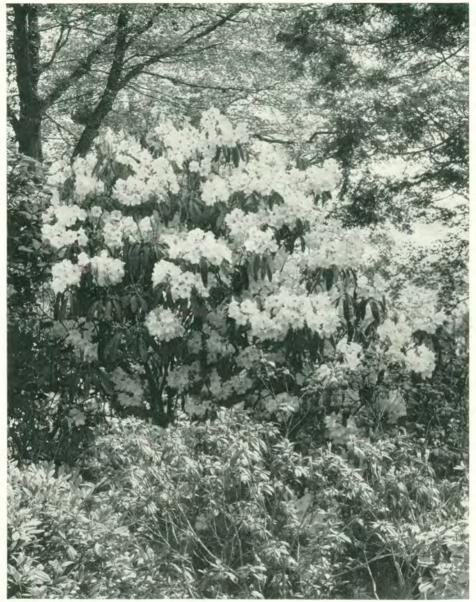


Photo: J. E. Downward

Fig. 21.—Rhododendron 'Sincerity', a natural seedling of R. griffithianum given to General Harrison of Tremeer by the late Mr. George Johnstone in 1946 when $2\frac{1}{2}$ feet high. It is now 13 feet high and $9\frac{1}{2}$ feet wide



Fig. 22.—Rhododendron 'Dorothea', planted in 1941 when 2½ feet high, and now 16½ feet high and 17 feet wide at Tremeer



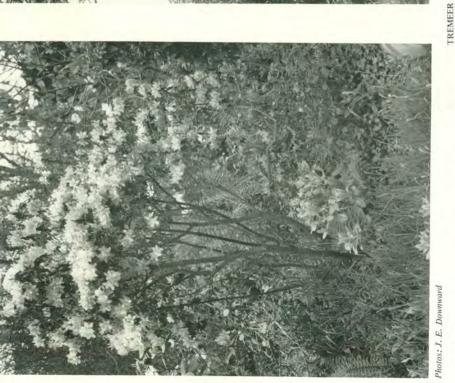


FIG. 23 (left).—Rhododendron augustinii × R. 'Saint Breward', a cross made at Tremeer in 1948 before R. 'Saint Breward' was named. It is now 8 feet high, closely resembling R. augustinii in flower, leaf and habit and flowering the latest in the season with the deepestcoloured flower of the batch

Fig. 24 (right).—Camellia × williamsii 'Donation', now 13 feet high and grown from a cutting taken in 1951 (see p. 43)

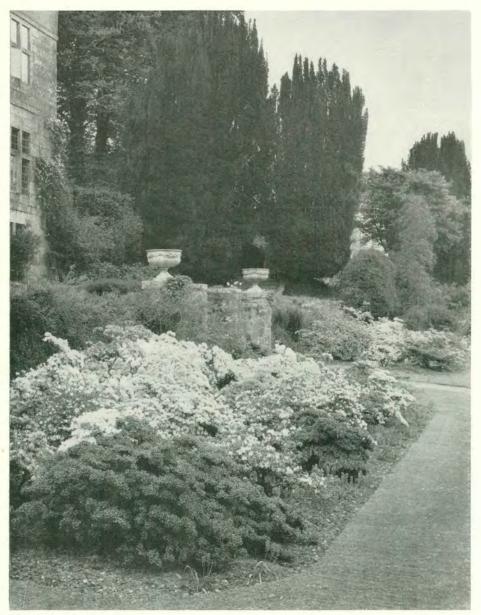


Photo: J. E. Downward
FIG. 25.—A border of evergreen Azaleas at Tremeer (see p. 134)

If we are to compare Hobbie's williamsianum hybrids with those originating in these islands, one thinks of 'Humming Bird' (williamsianum × haematodes) and 'Moonstone' (williamsianum × campylocarpum), both excellent hybrids, but just as with the repens hybrids these are not so bone-hardy as the Hobbie hybrids.

When I visited Herr Hobbie's gardens he was adding to his collection some of the many wardii collected in the Ludlow and Sherriff expeditions and others. He was particularly interested in the seed that was collected at higher altitudes, aiming always to get hardier plants to breed from. He interspersed his rhodos with seedling azaleas (R. Macrostemon) which flowered in late May and seemed quite hardy. He had some fine deep purple and some red forms. He also had some fine albrechtii which seemed to grow particularly well there. Of his various odd crosses I am not surprised to see he now has wardii × souliei—'Dortmund', and wardii × 'Mrs. Butler'—'Bengt M. Schalin'. I see also that he has crossed 'Duke of York' with venator and called it 'Salm'.

I am not surprised to see he is using *metternianum*, the very hardy and squat new species from the Eastern Mountains.

I do not see that he has yet recorded crosses with *yakusimanum*. No doubt this will be crossed with his dwarf hybrids. 'Linswegeanum' × *metternianum*—he has called 'Suomi'.

Discolor—of which he has some fine forms—he crossed with the ever-popular German catawbiense 'Grandiflorum' and called it 'Astraa', with the obvious intention of getting some late-flowering, tall-growing hardy purples. I have not had the pleasure of seeing these recent crosses but I hope I shall, not only by going again over to his garden but also by bringing some back and seeing them here.

CAMELLIAS AT TREMEER

By E. G. W. W. HARRISON

THERE were no Camellias at Tremeer when I went there in 1939 and it was not until 1947 that any were planted, so the garden can boast of no old, mature plants often the feature and

pride of older gardens.

The garden is in the north-east of Cornwall, just west of the Bodmin Moor, and, although it enjoys a rainfall of some 45 inches, it experiences particularly strong winds, and is liable to severe frost in late winter and in the spring. It is, I feel, too often assumed that all gardens in Cornwall enjoy the same mild climate as those in the favoured south-west, but it is not so.

A visitor to the garden probably would say that, as regards choice of site, rhododendrons have almost invariably been given priority over camellias; this has resulted in the camellias being planted in full sun, deep shade, or in wind exposure; that most of them have grown well and appear healthy shows how hardy and accommodating the genus can be—once the plants are established and a fair size, because the effect of frost on the roots of a young plant has been found to be disastrous. In many instances plants of the same variety have been sited the one in full sun and another in deep shade, and in every case the one in full sun has grown sturdier, taller and better shaped, and as might be expected has flowered far more freely. But that is not to say that growth might be quite different upcountry where the summer sun can be more intense than in Cornwall.

In this article garden value and not show-bench requirements is being considered, and from this aspect it would seem that the well-known varieties of *C. japonica*, that have been grown in this country for many years, more than hold their own compared with most of the varieties recently introduced. 'Alba Simplex', 'Juno', 'Adolphe Audusson', 'Lady Clare', 'Nagasaki', 'Elegans' prove their value as hardy, strong growing and floriferous year after year at Tremeer. 'Lady Clare' planted in 1953 when 8 inches high is now 8 feet by 8 feet and 'Nagasaki' of similar age is $6\frac{1}{2}$ feet by 7 feet; both plants are in almost full sun and smother themselves

in flower. 'Donckelarii' also invariably flowers very freely, but

its growth is not quite so robust.

In a cold spring it is noticeable how much better the single and semi-double varieties of *japonica* will flower compared with the formal doubles, and in a lesser degree with the anemone and paeony forms; it is rare to find a good flower among the Mathotianas in any season. The 'Duchess of Buccleuch', pink and early-flowering, and 'Surusumi', a dark pink and late-flowering, seem more likely than any other double forms to produce good flowers in a cold season in this garden.

A number of saluenensis were grown from seed at Tremeer, but in a short time they required so much space that most of them were destroyed; it was noticeable that they were much harder hit by severe cold than the japonicas, and yet it appears that their children, the williamsiis, are hardier than many of the japonicas. Saluenensis sets seed in some years, which the japonicas, except for

'Sylva', very seldom do here.

The single *williamsii* camellias grow at a great pace and flower very freely, but the flowers are all spoilt (so are the *saluenensis*) by the tits which tear them to pieces as soon as the buds start to open. It is rare to be able to find a single flower that has not been mutilated, and it is necessary to give protection if flowers are required for show purposes. 'J. C. Williams' is my own favourite in this class, as the flower opens more widely than many of its brethren, the petals are slightly reflexed, and it is such a delicate pale pink. The first single-flowered *williamsii* was planted in 1953 when 18 inches high and it is now a dense shrub of 12 feet. It is in full sun.

I know of no plant that pays a bigger dividend than C. 'Donation'. Here it starts to flower before, or soon after February 1, and it is still flowering on May 1. If during that period the flowers are killed by frost the plant is soon its gay self again, as the buds seem to be quite frost hardy; after a frost I picked off more than 200 dead flowers from a nine-year-old plant, and their number was restored within a week. It grows quickly; a cutting taken in 1951 is now 13 feet high (Fig. 24).

I believe that our climate is rather too cold for the semi-double, or garden form of *C. reticulata* to do well, but the single form grows strongly and flowers well; a plant raised from seed planted in 1949 had twelve flower buds which were all frosted in the very severe weather of February 1956 when there was 25° of frost in the garden; however, the plant itself did not suffer and it is now

9½ feet high and flowers freely. Other plants of the single form are behaving similarly, except there has been no frost since 1956

severe enough to prevent their flowering.

Only 'Leonard Messel' of the hybrids of reticulata has reached flowering size. Colour, flower form, habit, and hardiness seem to be happily blended in this quick-growing hybrid that flowers at an early age. It has, too, the advantage of being easy to strike from cuttings.

Four or five varieties of C. sasanqua have been grown, but no more will be tried unless a more rewarding result seems likely. It would be attractive to have a few camellias near the house flowering in late autumn, but in this climate the sasanquas, although they grow well, are very shy to flower, and the varieties I have seen have little substance in the flower.

There are in the garden some ten varieties of C. rusticana, which hails from the north of Japan, and is reported to be hardier than C. japonica; they arrived in 1961 and 1962 from Japan as rooted cuttings. Two of them flowered in 1965 and produced very small flowers, but it is probably too soon to give any view as to their garden value; in foliage they are similar to small-leaved

iaponicas.

C. japonica seed that came from the U.S.A. was sown in the spring of 1955 and thirty-five plants are being retained until they flower; the tallest of these is now a well-shaped bush $5\frac{1}{2}$ feet high. So far five have flowered, two single whites, one single pink and two semi-double reds; none is particularly good, but all are quite commendable, which is more than I had dared to expect from what I had gathered about growing C. japonica from seed.

I have no experience of moving large camellias any distance, but I have moved a number of plants up to a size of 7 feet by 6 feet from one part of the garden to another. Although deeper rooted and less easy to move than rhododendrons, none has been unduly affected by its move, except that in some cases the flowers have been poor the next season. I should say that early autumn is the best time to move the larger plants, so that they may get the winter's moisture for settling in. For planting out young potplants, I like the late spring when there is no longer any chance of a late frost, but of course these small plants require some water in a dry summer. Only once have I moved a camellia while it was making its new foliage; the distance was only a couple of yards, but the plant did not fully recover for four years.

I think it is interesting to know which varieties do well and are

preferred in any particular garden; for all-round performance I should select 'J. C. Williams' and 'Donation' of the williamsiis; 'Sylva', 'Alba Simplex', 'Adolphe Audusson', 'Donckelarii', 'Lady Clare', 'Nagasaki', 'Mercury', 'Elegans', 'C. M. Wilson', 'Duchess of Buccleuch' and 'Surusumi' of the japonicas, the single form of reticulata, and 'Leonard Messel'; but this list must necessarily be unfair to some of the younger plants that have not yet had time to prove their value.

PROPAGATION OF CAMELLIAS FROM CUTTINGS

By GEOFFREY R. WAKEFIELD

When Mr. Robert (Strauss) told us that the International Camellia Society was coming to visit Stonehurst, we, the staff, got a feeling of great pride that ours should be one of the gardens to be visited by such an august company. When, a few days later, I was asked to lecture to the company, my personal feeling of pride was drowned by one of terror at the thought of speaking to a society of experts on their own pet subject. However, it turned out that what was required was something by way of a demonstration to show the smaller growers how they could propagate a few plants in a small greenhouse to provide reserve stocks of plants for replacements and for "swapping". It is hoped that these notes will serve a similar purpose, to instruct the grower of a few plants on a simple method of providing extra plants by taking cuttings.

Equipment

If one believes the salesmen, a fully automated greenhouse complete with thermostatically controlled soil and air heaters, subterranean irrigators, trickle and spray lines linked to moisture detectors, and blinds and ventilators which are actuated by even more electronic gear, are absolutely essential for any degree of success. I admit that such equipment has an important place in horticulture. For the commuter, dashing off to the station, toast and marmalade in hand, to return exhausted only as the lights of evening come on, it is more than a boon. He can potter through the weekend knowing that all is being looked after during the week with a minimum of attention. Holidays too present difficulties. With such equipment an occasional inspection by a semi-skilled person may be sufficient. For the small amateur gardener such equipment represents a capital outlay which many would consider better spent on new varieties, therefore, they prefer to content themselves with more modest equipment.

The essential for propagation by cuttings is that the cutting be kept alive and healthy until such time as it decides to root. This

requires a suitable temperature, good humidity, even moisture and the correct light. Even a small greenhouse can easily be heated or ventilated to maintain a temperature of about 65° to 75° F. during the summer and autumn months, therefore propagating is best carried out on the bench of such a house. To maintain a high and even humidity a "Wardian" case would be perfect. A reasonable facsimile of such a case can easily be made from a packing case some 12 inches deep, of a size sufficient to accommodate the required number of cuttings. For my demonstration I used an old Italian wine case with 1-inch holes bored about 4 inches apart over the bottom to provide drainage. These were covered by 2 inches of broken crocks in turn covered by some dry, dead leaves to prevent percolation of the compost. A sheet of polythene slightly larger than the case (150 gauge is quite thick enough) was laid over the cuttings and tucked in round the edges right down to the compost. A single sheet of glass covers the case like a lid.

Compost

The compost like so many other things in propagation is a debatable matter. Some prefer pure coarse sand, others get better results in pure peat. Pure sand encourages quick good root formation, but careful attention must be paid at all times to the moisture content to see that it never dries out. Pure peat retains moisture more easily but can become too wet resulting in the rotting of the base of the cutting. It does give better growth immediately the first root forms and I think produces a cutting which gets away better. The happy medium I have found to be most satisfactory is half peat and half sand. The peat may be ordinary baled moss or sedge peat or forest peat, but the sand MUST be good quality washed sand of quite a coarse texture. Bedfordshire silver sand or washed river grit have proved to be very satisfactory. All builders' sands should be avoided. The compost must be evenly mixed and not less than 4 inches placed in the case. Do NOT firm it down too much as considerable settling will take place as the cuttings are watered in. Make sure it is quite level and even.

Tools

Very little in the way of tools is required beyond a bit of cane to act as a dibber, labels, a watering can and, most important, a really good sharp knife. Any Harley Street surgeon would shudder to see a patient being hacked with a not-too-sharp carving knife. I have exactly the same feelings when I see a poor cutting abused by a

knife which, to quote my old Dad, "You could ride bare back to Brighton on". The knife MUST be absolutely razor sharp. At the beginning of the season an ordinary blade which has been used for everything, pruning, cutting flowers, string etc., may take as long as an hour to get reasonably sharp and until it can stand the test of shaving a few hairs from the forearm, it is not fit for use. We usually use this test during propagating whenever the knife has to be touched up (which is quite often) and by the end of the season our arms look rather moth-eaten.

Optimum Time for Cuttings

You will read that camellias are so easy to root from cuttings that they may be taken and inserted with confidence at any time of the year. This may be true, up to a point. But if they are taken at the optimum time far quicker and better results will be obtained. Between the bark and the wood of the cutting is a layer of active cells which we call the cambium. During rapid growth, these are in very rapid activity, the wood is soft and sappy and would easily rot. During the winter the cells are almost completely dormant. For this reason we take the young growths made the same season when they have completed their growth, have firmed up nicely but have not yet become too hard. This is usually about the second half of July through to the end of August. It can vary very considerably from season to season according to the weather, and also the state of readiness of the cuttings can vary according to their position on the bush. Select healthy, medium-sized growths about 4 to 8 inches long. Short stubby little growths usually take very long to root and make bad plants even when they do root. Long lanky growths are usually too soft and sappy, often rotting at the base of the cutting before they root. When gathering cutting material, try to shape the plant, avoid taking growths in such a way as to spoil it. Always gather into a polythene bag which has either been dampened on the inside or better still, which has a small handful of damp sphagnum moss in the bottom. This is most important since considerable moisture can be lost from the cuttings between the time of gathering and the time of insertion, especially if the telephone should ring in the interim. By keeping in polythene the cuttings remain plump. If longer storage is necessary, the vegetable compartment of the 'fridge is ideal. Gather each variety into a separate bag and label.

Preparation

Many older books advocate the taking of leaf-bud cuttings for camellias. This method had certain advantages but we have found



Fig. 26.—Stem cuttings of Camellia japonica prepared for insertion and (right) after rooting and after shoot growth has been made (see pp. 48-51)

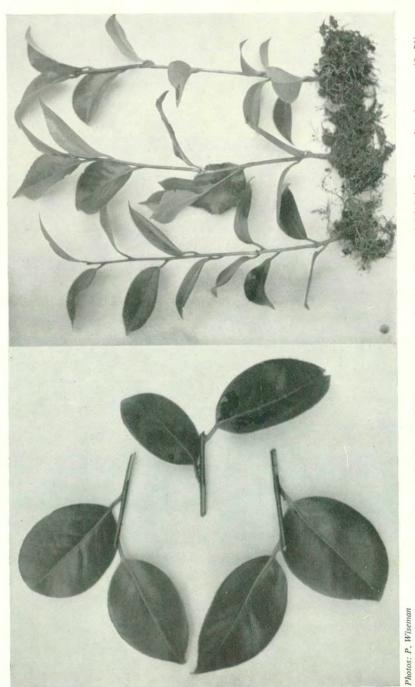


Fig. 27.—Terminal shoot cuttings of Camellia japonica prepared for insertion and (right) after rooting (see pp. 48-51)





PLATE 6.—Camellia reticulata 'Shot Silk' ('Tayinhung'). A fine spray shown by the Crown Estate Commissioners, Photo: J. E. Downward

that longer pieces of wood are more satisfactory. If only one bud is used, it MUST grow. If for any reason at all, temporary lack of moisture or humidity, chilling, too high a temperature, the growth bud is shed, the cutting may still root but will not be able to replace the bud. We once had some of these "dry bud" cuttings as we call them and tried an experiment to see if they would in time make growths. They were strongly rooted and were potted off into 3-inch pots. When they were well filled with roots we began feeding with high nitrogen fertilizers, even to the extent of using nitrate of soda. In some cases the leaf which remained on the cutting grew to a great size and assumed an almost succulent thickness and texture, but the cuttings never replaced the lost buds. Therefore we use a cutting of a sufficient length to have two buds, and this is usually about 2 to 3 inches. The lower leaf is removed and a 1-inch-long slanting cut is made across the wood, terminating if possible just below the leaf bud. If it is found necessary to make more than one cut to get the correct slant and finish at the right point, try to finish off with a completely smooth surface. Now a small cut is made on the opposite side at the base of the long cut, at a much flatter angle to "spade" sharpen the end of the cutting as it were. Rooting begins with the formation of a sort of scab material called callus which grows from the cambium layer of cells. This callus gradually thickens, then from the spade sharpened end of the cutting knobs of callus material eventually lengthen into roots. This is why we try to take the cutting at the perfect optimum time when the cambium cells are still nice and active, yet when the wood has firmed up sufficiently to support the cutting and not rot. The long sloping cut is made so as to expose a good amount of cambium to make callus and the spade-end cut is made as an encouraging point from which the cutting may root.

If the remaining leaf seems to be too big, it can be reduced in size by cutting part from the tip end. It must be borne in mind, though, that the more the leaf area is reduced, the less area of chlorophyll cells there will be to carry out photosynthesis, the greater area of leaf retained (within reason) the quicker and better, usually, the cutting will root. Under mist we retain as much leaf as space allows. In the close case, unless a really high humidity can be maintained, as with a sheet of polythene over the cuttings, it may be advisable to remove a certain amount of leaf to prevent too rapid loss of moisture

through transpiration.

Insertion

The cuttings are now dibbled into the case at a depth half of their length, making quite sure that the base of the cutting is resting on the bottom of the hole made for it and is not suspended in the hole. NEVER just push the cutting into the compost as considerable damage to the base of the cutting can result from the grazing action of the sharp granules of sand. Water the cuttings in really very thoroughly to settle the compost round them, cover with the sheet of polythene making sure it is tucked in well round the edges. This is done to prevent the loss of moisture. As the moisture in the compost evaporates it condenses on the polythene eventually to accumulate and run back down into the compost. I have tested this and one case was left unattended, except for shading in brilliant sunshine and light watering round the edges where moisture loss through capillary action occurred, for eight weeks, by which time the entire batch of cuttings was rooted. It is advisable to inspect the case from time to time, pick off any dead leaves to prevent the formation of moulds, check for any other troubles, water or spray over as necessary.

Temperatures and Shading

I have purposely linked these two together as they are each a little dependent one upon the other. The ideal temperature for these cuttings would be about 70° F.; 60° is rather too low except for the unavoidable short periods and 80° is too hot. In the lower ranges heating of some sort may be necessary. In the upper ranges shading and ventilation must be used. It is no good at all ventilating the propagating case, as this will also result in the release of the precious humidity, so it is the main house which will have to be aired to reduce the temperature. If the case is standing in full sun there will still be a very considerable build-up of temperature within the case so shading must be used. If the case is heavily shaded the reduction of light may be sufficient to reduce photosynthesis; therefore unless other plants within the house are likely to suffer, it will be better to shade the house thereby allowing sufficient light to enter the case but preventing a build-up of too high a temperature. In such hot summers as we enjoyed last year (1964), it was occasionally necessary to shade both the house and the case during parts of the day. This year we shall leave all the shades completely off through much of the day occasionally even at mid-day.

Rooting may be as quick as six weeks or as long as six months; usually the cuttings can be gone through, the best potted off at

eight to ten weeks. As rooting takes place, the covers can be very gradually removed. At first ease the edges of the polythene a little to admit a little air for a few days, finally removing it completely. After this the corner of the glass can be raised a fraction for a few minutes, later hours, a day, increasing the duration and amount daily until the glass is completely dispensed with. Be gentle with this removal of covering, but at the same time I have found that camellias are slightly lazy creatures. All the time you are willing to give them perfect conditions they are quite willing to enjoy them, bothering little about growing once they have rooted. Give them slightly tougher conditions and they have to make strong roots to live which in turn are followed by strong growth.

Propagation of all kinds can be likened to surgery. For success: 1. Careful preparation of the patient by selecting the material at the best time. 2. Careful surgery with a good knife. 3. Careful

nursing.

CAMELLIA RENAISSANCE IN AMERICA

By JOSEPH H. PYRON

(Secretary-Editor American Camellia Society, Tifton, Georgia)

CAMELLIAS were not introduced in America until near the close of the 18th century. They soon became very popular in Southern gardens where they grew without the protection re-

quired in the North.

Following the War between the States and the resulting bank-ruptcy of the landed gentry of the South, camellias and other rare ornamentals fell into a decline. Names, if they were ever known, were lost or confused. Few nurseries offered camellia plants and many were sold by colour only. The American Camellia Society along with various other camellia organizations, notably the Southern California Camellia Society through Mr. William Woodroof's biennial Camellia Nomenclature, have accomplished much in clarifying nomenclature. This of course is an unending job and is necessarily international in scope. Many lost-label plants which were assigned local names have proven to be known European varieties.

Interest in camellias remained more or less dormant until the 1930's, but nurseries were unable to supply plants during World War II. The current renaissance dates from the mid-1940's.

The American Camellia Society was organized twenty years ago as a means of better communication among camellia growers and to serve as a clearing house of information for our 7,000 members. Specifically its charter states:

"The purposes of this Society shall be to promote interest in the Genus Camellia L., scientific research in its culture, standardization of its varietal names, certification of new varieties, dissemination of information concerning the above, the creation of a foundation to further these purposes, and to promote the organization and affiliation of local Camellia Societies in the United States."

Over a hundred shows throughout the United States are sponsored by the American Camellia Society each year. These shows bring together growers and camellias from hundreds of miles. Attendance runs as high as 50,000 at the larger shows, often with

5,000 blooms on display. Several large shows failed to report their attendance this year; however, a total attendance of 347,000

was reported. Many shows do not charge admission.

Autumn shows are becoming increasingly popular due to use of gibberellic acid. New seedlings and mutations are given special recognition. The ACS has attempted to standardize shows by issuing guidelines agreed upon by exhibitors from various sections. Separate classes are set up for greenhouse-grown and unprotected flowers. A show handbook has been published and rules for accrediting horticultural judges have been established. Many shows feature artistic arrangements based upon themes suggested by a committee of ACS members who are also accredited by the National Council of State Garden Clubs.

In America camellias are especially popular with men. Some growers collect camellias almost to the exclusion of other flowering plants. A grower may have several hundred varieties planted on a small city plot, hence their landscape effect is often neglected.

Interest seems to be centred on producing the largest specimen flowers possible, by disbudding, severe pruning and special fertilizers. Shows rarely provide for sprays of flowers to be exhibited. Either individual specimens, three of a kind or collections of three

to ten varieties are entered in competition.

The camellia hobby sometimes takes unusual or specialized twists. Some specialize in miniature varieties, others collect rare species, Sasanquas, Reticulatas or varieties with unusual leaves. Some hybridize while others are content to collect hybrids produced by others. Some grow camellias strictly for their own enjoyment and that of their friends and never exhibit, while others are chiefly interested in exhibiting in the various shows. Seeking the newest varieties has great appeal for some while others prefer the well-known older varieties and do not want the new ones until they have fully proven themselves. Seedlings attract many enthusiasts and part of the enjoyment is in getting them to flower in as short a time as possible through use of continuous light, special fertilizers, pot binding, girdling the stem or special grafting techniques. The camellia hobby has many interesting facets.

USE OF GIBBERELLIC ACID

One of the most controversial phases of camellia culture is that of the use of gibberellic acid. This interesting auxin-like chemical was discovered by Japanese scientists shortly before World War II in an ascomycetous fungus Gibberella fujikuroi which causes a disease of rice. Gibberellic acid can now be produced in quantities through laboratory culture of the fungus. (See Brian, W. P. (1960), Influence of Gibberellins on Plant Growth and Development, Journal of the Royal Horticultural Society, Vol. 85, 167–174.) Gibberellic acid (GA) seems to have wide application to a number of plants. Horticulturists are conducting interesting research on its application. Its use on camellia buds causes the flower to open weeks to months ahead of normal season and increases size. There are numerous reports of improvement of the texture of the petals and of longer-lasting flowers. Colour and formation may be distorted in certain varieties and under certain climatic conditions. GA is no substitute for good cultural practices.

Although there have been some strenuous objections to its use on camellias, GA seems to have considerable merit. The camellia season in the United States is much earlier than the season in England. Early varieties begin blooming in late October and November, with the height of the season in January, February and early March. By using GA even the late-flowering varieties can be caused to open in October and November, prior to heavy frosts. Greenhouse growers use GA to produce larger, better quality flowers for exhibition. A special "chemically treated" class is provided in many shows so as not to compete unfairly with untreated flowers. Opposition to use of GA seems to be disappearing as more people experiment with its use. It is easy to apply, readily available and is inexpensive. The effect on the plant seems to be strictly localized. The stem should be cut two or more nodes below a treated flower, for the vegetative buds are retarded. Whether its prolonged use will adversely affect the plant remains to be seen.

Although most diseases of camellias can now be controlled, our most serious problem is that of control of Camellia Flower Blight which is becoming widespread. The spores of the causal fungus appear in January and February, hence flowers which open in October through December are not affected—still another argument for using GA! England may escape this dread disease since it has no flowers open in January–February. The disease causes an unsightly and rapid deterioration of flowers.

GREENHOUSE CULTURE

Considerable progress has been made in greenhouse culture. With the advent of inexpensive clear plastics such as polyethylene,

many growers are building their own greenhouses. Soil mixtures and fertilizer formulae for container-grown plants have been improved. Automatic controls for heating, ventilating and misting are now available at reasonable prices. These houses are extending the camellia-growing belt further north, although many houses are being built in Florida and other warmer states so as to avoid the sudden freezes we have experienced in all states in recent years. The ACS published a special greenhouse culture issue several years ago.

Propagation in America is accomplished both by rooting cuttings during the summer and by grafting. The latter practice seems to be seldom used in England. Many amateurs exchange scions by air mail and do their own grafting. Plants are much lower priced than twenty years ago; they are also better grown. Variegated flowers seem much more popular in the States than in England where solid colours are preferred. In fact, variegation is often deliberately induced by grafting on understock known to

carry a form of virus which causes variegation.

POPULAR VARIETIES

In America loose semi-double to paeony-form flowers are more popular than formals, singles or flat semi-doubles. Based on recent "best in show" winners the following are the most popular

Japonicas:

'Ville de Nantes', 'Tomorrow', 'Donckelarii', 'Guilio Nuccio', 'Betty Sheffield' and its many sports, 'Mathotiana Supreme', 'Julia France', 'Mrs. D. W. Davis', 'Tiffany', 'Carter's Sunburst', 'Sawada's Dream', and 'Elegans Supreme'. Of these only 'Donckelarii' was known in this country twenty years ago. 'Ville de Nantes' was introduced from France shortly after World War II and continues to be popular year after year. 'Mathotiana Supreme' and 'Elegans Supreme' are sports of old European varieties. The others are of recent American seedling origin. Camellias set seed freely along our three coasts and as a result hundreds of thousands of seedlings are being grown. Most seed is produced from openpollinated flowers, but controlled crosses are now being made. Over a hundred new varieties have been registered with the American Camellia Society this year. Most seedlings are small, single and not worthy of introduction; however, the plants are widely used as understocks for grafting.

HYBRIDS

In 1819 the Abbé Berlèse grew a hundred seedlings from the famous tree at the Palace of Caserta in Italy. Many of the best Italian varieties came from seed collected from this same tree. By 1845 the Abbé was considering the crossing of other species with *C. japonica* since he concluded that this species had now produced all the varieties of which it was capable. Thus he anticipated by more than a hundred years the current interest in and importance of hybrids. Whether he successfully hybridized any of the few species then available is not recorded. Great progress is being made to-day with hybrids, yet this is only the beginning of this important work. We can reasonably expect that fragrance, yellow and blue colour, cold hardiness and other desirable characteristics will become a reality within a few years.

Hybrids are beginning to be very popular and I predict will become more so as F_2 and succeeding generations appear. 'Howard Asper', a *reticulata* \times *japonica* hybrid in its first year of introduction, has become the most popular hybrid. The New Zealand Jury hybrids perform exceptionally well here and a few will be released to growers this coming season. Of the English hybrids,

'Donation' and 'Leonard Messel' are favourites.

Reticulatas do exceptionally well in Southern California but require greenhouse protection and special care in other states, even in Florida. Although greatly admired when exhibited, few grow them. Possibly some of the new hybrids will incorporate the beauty of the Reticulatas with the hardiness of Japonicas or other species. Sasanquas seem not to be as popular as they once were, although they make fine landscape plants.

Great progress has been made in twenty years and interest is

increasing, yet much remains to be accomplished.



Photo: T. Durrant

OLD AND NEW CAMELLIAS IN NEW ZEALAND Fig. 28.—Camellia \times williamsii 'Clarrie Fawcett' raised by Professor E. G. Waterhouse in New Zealand (see p. 58)



Photo: T. Durrant

FIG. 29.—Camellia japonica 'Jessie Katz', raised in America and growing well in New Zealand (see p. 59)



Fig. 30.—Camellia japonica 'Harriett Durrant', raised in New Zealand by Mrs. Jane D. Crisp (see p. 60)



Fig. 31.—A hedge of Camellia japonica of great age in Portugal



Fig. 32.—Trees of *Camellia japonica* in Portugal. The ground is carpeted with fallen petals



Photo: J. E. Downward

Fig. 33.—Camellia × williamsii 'George Blandford', A.M. March 2, 1965. Exhibited by F. Julian Williams Esq., Caerhays Castle, Cornwall (see p. 162)

OLD AND NEW CAMELLIAS IN NEW ZEALAND

By Colonel T. DURRANT, D.S.O., M.B.E., T.D.

SINCE almost all of New Zealand's native flora is evergreen in Character, it can be assumed that the soils and climate are suitable for camellias and, indeed, for many other exotic evergreens from warmer-temperature areas. Camellias were commonly planted by early settlers and there are literally thousands of old plants surviving since the middle of the 19th century, many with no other attention than the fertilizer dropped by cattle and sheep seeking their shelter and shade.

The largest plant I have seen is over 40 feet high and 35 feet across. In full flower this plant of the old variety, *C. japonica* 'Lowii', is a quite remarkable sight. In the 1963 Year Book I reported on some of the historical camellia plantings in New Zealand and, since then, our research programme has turned up

many more of considerable interest.

In August 1840, a French ship, Comte de Paris, landed a party of sixty men and women at Akaroa on Bank's Peninsula, establishing there the only French settlement in New Zealand. The land-locked shores of Akaroa Harbour had been used as a base by French whaling ships and there is no doubt that this tiny settlement maintained contact with France for some time.

To-day, Akaroa is a quiet, peaceful place with an air of gentle decay. The streets carry French names, a few of the original families are still represented, but the language has disappeared. Some plants of French origin could, however, be expected to have survived. I found some thirty old camellias in gardens of original settlers. Many are varieties not previously seen and work on their identification is under way. One of them provided a thrill which made the long journey to the South Island worthwhile. It is a fine, vigorous old plant and was very well set with flower buds in early July. The shape and form of the flowers were similar to a good 'Debutante' but the colour was a vivid cherry red of unusual brilliance. The Horticultural Colour Chart made it Cherry Red 722/1, and that is something quite out of the ordinary in camellias!

I hope to identify this in due course and get it re-introduced into New Zealand gardens.

A glance at some nursery catalogues gives a good idea of the current growth of camellia popularity in New Zealand. Ten years ago about twenty-five varieties were listed and these, apart from 'Lady Clare' and 'Captain Rawes', were mostly of little interest. The 1965 catalogues include over 300 varieties; prices are as high as 4 or 5 guineas for the newer japonicas, while 8 to 10 guineas is charged for quite small plants of the Kunming reticulatas; and, the nurseries sell all they can produce, even at these prices. Annual production is in the neighbourhood of 120,000 plants and the market absorbs them all, before they even have time to grow to a respectable size.

In New Zealand, we are mostly concerned with growing camellias as garden plants, but the collectors' instinct is aroused by the endless variety of flower form and colour, and many come to container culture when they run out of room for more plants in the ground. Collections of several hundred varieties are quite common.

Many new hybrid camellias are giving outstanding performances, flowering freely for long periods and, apparently, quite oblivious to heavy rain, wind and frost, often followed by bright sunshine. C. williamsi 'Donation' must be one of the best camellias in the world. Large plants of it simply smother themselves with bright pink flowers from mid-June until mid-September. Sometimes, a sharp frost spoils the blooms but another lot appear within two or three days.

C. 'E. G. Waterhouse' does not flower for so long, or quite so freely, but its fragile-looking, formal double flowers are a delightful addition to the early spring garden. It has the merits of strong, upright growth, good foliage and well-displayed flowers on strong stems. Another of the group of saluenensis hybrids, introduced by Professor Waterhouse, is 'Clarrie Fawcett' (Fig. 28). The soft pink, semi-double flowers shade to almost white in the centre. They are borne very freely on a shapely bush and have remarkable weather-resisting qualities.

Many of Dr. Bryan Doak's hybrids (saluenensis × reticulata, 'Captain Rawes') have now proved themselves as remarkable garden plants. They flower earlier than the williamsii group and seem, generally, to be less affected by weather. Our plants of 'Brian', 'Phyl Doak', 'Barbara Clark' and 'Dr. Lesley', recently endured a series of thirty-nine radiation frosts in forty-three nights.

They went on opening flowers throughout and even buds just at the point of opening appeared to survive being frozen stiff, with no ill effects. The variety 'Phyl Doak' has most lovely flowers; it is possibly slightly less floriferous than 'Donation' but it is in that class. This range of hybrids should be very well worth trial, even in some of the cooler areas of Great Britain.

Many new varieties of camellia are now sufficiently well established for their garden merit to be assessed. When they can be given sufficient shelter, the ghostly, great flowers of 'Mrs. D. W. Davis' are certain to surprise the uninitiated. 'R. L. Wheeler' and 'Coronation', in spite of their immense size, manage to display their flowers to advantage and make a wonderful contrast when grown as neighbours. The simple flowers of 'Berenice Boddy' are displayed throughout the entire winter and spring; the ivory-white 'Mrs. Bertha A. Harms' keeps its place as one of the best of the many varieties of C. japonica, and the vivid contrast of the red and white 'Ville de Nantes', with its strangely fimbriated flowers, fascinates everyone who sees it. 'Jessie Katz' has a quite characteristic sheen on its waved and crinkled petals and is another camellia for which the demand exceeds the supply (Fig. 29). These are just a few of the many fine camellias now established and flourishing here.

Plants of *C. reticulata* need maturity before their merit can be assessed and some of our earliest importations, now twelve years old, are making magnificent displays. It is obvious that some of them have a tree-like habit. 'Shot Silk' (Tayinhung) is now a delightful small tree 15 feet high and with its first major branches 8 or 9 feet above the ground. 'Chrysanthemum Petal' (Tsueban) has the same habit, though growing more slowly, and its small, delicate pink, formal flowers are beautifully displayed over its high branches. 'Crimson Robe' (Tataochung), 'Butterfly Wings' (Hoyehtichich), 'Takeiyeh', 'Confucius' and 'Pagoda' (Sungtzelin), as very large bushes, all make breathtaking displays in our garden and are getting better every year. The brilliant colours and enormous size and number of the flowers, create an effect that quickly runs one short of superlatives in attempting to describe them.

New Zealand already has some hybridists of international reputation and the work of Dr. Doak and Mr. Les Jury is well known overseas. Now, up and down the country, there are literally scores of members of the New Zealand Camellia Society raising seedlings, attempting new interspecific hybrids and, in some cases, just growing hundreds of seeds which have resulted from the

attentions of those excellent and indefatigable hybridists, the bees

and our honey-eating birds!

In the next few years there will be many fine new camellias coming from New Zealand and this season I have seen some outstanding ones which will be appearing on the show benches next year. Fig. 30 shows *C. japonica* 'Harriett Durrant', a seedling raised by Mrs. Jane D. Crisp and named for her grandmother. It won the New Zealand Camellia Society's seedling trophy at the National Camellia Show in 1964. The colour is Rose Madder HCC (23/2 to 23/3).

AN EXPEDITION TO NORTH EAST INDIA, 1965

By PETER and PATRICIA COX and PETER HUTCHISON

AN expedition to collect plants had been under consideration for some time and the eastern part of the Himalayas seemed the most promising place. Bhutan was tried and permission was quickly refused. This left what is now known as the North East Frontier Agency, or NEFA for short. The mountains of NEFA, forming the northern part of Assam, are the least well known of the whole Himalayan chain owing to little effort at administration

there until recently.

A brief description of the distribution of rhododendrons in the Himalayas might be of interest to those who have not made a study of this subject. The west end of the Himalayas is dry even in the foothills overlooking the plains. As one goes east the rainfall steadily increases right along to the extreme east of Assam where it borders with Burma not far from the Yunnan frontier. This rise in rainfall naturally develops a richer rhododendron flora so in the east a greater number of rhododendron species is generally found. As the heavy-rainfall foothills are not high enough to include much of the main rhododendron belt which is between 8,000 and 14,000 feet, the species are most plentiful on the high ridges which catch the monsoons sweeping up from the south. The ridges get progressively drier towards the semi-desert plateau of central Tibet. In these drier areas only certain drought-resistant species occur such as various members of the *Lapponicum* series.

The three districts bordering NEFA to the west, north and east have all been fairly well explored botanically. Kingdon Ward and Ludlow and Sherriff have covered the area to the west and north of the Kameng River which lies just to the east of Bhutan, which itself of course has been well explored by Ludlow and Sherriff. To the north both Kingdon Ward and Ludlow and Sherriff have been to the top and sometimes just over the passes on the Tibet NEFA frontier coming from Tibet, but have penetrated little into NEFA itself. To the east Kingdon Ward has collected in certain parts of the Mishmi country near the extreme north-east corner of NEFA, which makes the NEFA area of tremendous interest in fitting

together the distribution pattern of rhododendrons and the chances of finding new species and varieties are very great. Examples found in Bhutan and west of it are R. falconeri, R. niveum, R. ciliatum, R. wightii, R. nivale, R. campanulatum, R. boothii, R. barbatum and R. grande. Some of these do stretch round into south Tibet. To the north on the Tibet NEFA border, are R. tsariense, R. sherriffii, R. erosum, R. puderosum, R. lopsangianum and R. wardii Ludlow and Sherriff. To the east in the Mishmi area grow R. cephalanthum var. crebreflorum, R. crinigerum, R. megacalyx, R. calostrotum, R. cerasinum, R. tephropeplum, R. mishmiense, R. sinogrande and R. arizelum. Species common to all three areas are surprisingly few, especially from both Bhutan and the Lohit-Mishmi country. Some of these are R. forrestii varieties, R. vaccinioides, R. edgeworthii, R. cinnabarinum, R. micromeres and R. campylocarpum. It is therefore of great interest to find out just how far east the Bhutan plants spread, and the reverse with the Mishmi ones. Only three or four expeditions, allowed to travel where they like in NEFA, will be able to answer this.

We collected in three areas, two well known botanically and one unexplored before our visit. The first was the Khasia Hills which lie to the south of the Brahmaputra and are therefore isolated from the Himalayas. These hills rise to some 6,400 feet at Shillong Peak and so everything coming from here is on the tender side. The second place to be visited was the Subansiri division of NEFA which lies between the Kameng division bordering Bhutan and the Siang division (Abor Hills). This was to have been our chief collecting ground as nearly all is virgin territory, but in the end we were limited to one ridge just over 9,000 feet overlooking the Assam Plain. At one time we had hoped to do a considerable amount of collecting in the higher mountains near by, especially the ridge of over 12,000 feet to the west, but just when we thought it was all settled, we were completely refused permission for both this ridge and Se La near the Bhutan frontier which was tried as an alternative. Other ground nearer Tibet was out of the question owing to the Chinese threat. The third place collected in was around Sandak Phu near Darjeeling in North-west Bengal. This was only done by Peter and Patricia Cox as Peter Hutchison had left for home having failed to gain any further permission for NEFA.

We flew out to Delhi in early March, where eventually permits were promised. We then cleared the heavy baggage which had come by sea, through customs in Calcutta, and went on to Shillong, the capital of Assam, to meet the Botanical Survey of India (Eastern Section) with whom we had arranged a joint expedition. We were most hospitably entertained by Mr. E. P. Gee, well known as an

authority on the wild life of India.

Once more there were delays while we waited for word from Delhi. When the permit finally arrived it contained the unpleasant shock that we were only to be allowed to collect on the ridge to the south-east of Zero. This was most unsatisfactory for our purpose as this ridge only reached a height of some 9,750 feet. Furthermore our photography was restricted to the flora and our ciné camera was entirely forbidden. The photographs we did take had to be submitted to the NEFA Authorities for approval. None of these restrictions had been mentioned in all the correspondence and interviews we had had with the Ministry of External Affairs in Delhi.

Additional delays were incurred waiting for the Botanical Survey's jeep which was then in Bhutan, but the time was usefully employed collecting in the surrounding country. We made contact with Dr. Rao who is head of the Eastern Circle of the Botanical Survey of India, and we also met Mr. Sastri and Mr. Kataki, the botanists who were to accompany us on our trip into NEFA. All of them gave us much help and indeed we could not have had two

better companions on a trip of this kind.

On Shillong Peak near by grew a very fine red Rhododendron arboreum (C. & H. 305) which was in full flower on our arrival. It made a tree of up to 35 feet with wonderful rich glowing flowers in compact trusses. It is a pity that only the most favoured of us can grow this good form owing to its tenderness. It has been in cultivation for a very long time but is now quite rare in gardens. In mild districts where one can grow this splendid plant, it should be seen more often. This has a long flowering period as a few trusses still remained on our next visit to Shillong some time later. In the gorge below the Peak we found, after quite a search, Rhododendron inaequale (C. & H. 301), a fine species with large scented flowers in trusses of up to six, white with a yellow throat. Coming from only 5,000 feet it is only for the greenhouse in most districts. It grows on rocks overhanging the stream and is sometimes epiphytic. It was out of flower on our first visit, and we only spotted it growing up on the cliff face when sitting down eating bananas. We were lucky in finding a quantity of last year's seed still unshed, some of which have germinated well. On a later visit we saw it in flower.

A few miles away to the south-west, R. formosum (C. & H. 302) grew on open scrubby knolls, usually a small bush not more than

4 feet in height. It varied from pure white (Fig. 37) to a pale pink with stripes down the corolla (Pl. 7). This plant is getting rarer owing to the scrub being cleared. The leaves of this form are rather wider than the type specimen and the majority of this species in cultivation. In another place not far away, we found other, looser shrubs with larger flowers and leaves, which may have been half way between R. formosum and R. inaequale. Various forms of R. formosum were about the only rhododendrons cultivated in Shillong. These, mostly collected plants from the wild, showed considerable variation in flower, leaf, habit and flowering time. In good situations, these were often fine compact bushes of up to 8 feet which covered themselves with flower from mid-March to mid-April.

The area from the Khasia Hills, where Shillong is situated, through to Burma is very rich in orchids, especially species of Dendrobium. We made several trips searching for these, including Shillong Peak, and Pynursla and Cherrapungi to the south. The last place is famous for its heavy rainfall of about 400 inches and it poured on our arrival there. Fortunately it soon stopped and when the mist cleared for odd moments we were able to catch glimpses of the magnificent waterfalls plunging down the escarpment. Cherrapungi is claimed by some to have the highest rainfall in the world but the right to this somewhat doubtful distinction probably

belongs to a small village nearby, Mawsynram.

Curiously, nearly all the plateau around Cherrapungi was devoid of trees. No doubt much has been cleared but this area of really heavy rainfall never had more than a mossy scrub forest. If this forest is removed, the soil is rapidly leached and soon only a poor

grass covering remains.

Eventually everything was fixed up and we left for NEFA. We travelled to North Lakhimpur by the south bank of the Brahmaputra and after a night at Kaziranga, crossed to the north bank of the river. The crossing took three ferries, one over the main stream of the Brahmaputra, the others over the lower reaches of the Subansiri. Both rivers were dotted with rafts of water hyacinth floating down, a beautiful but rampageous plant that covered many of the pools and lakes of the Assam Plains with its lavender-blue flowers. Between the first and second ferries we had to cross the width of Majuli Island, said to be the largest inland island in the world. Finally we reached the hot and smelly little town of North Lakhimpur and after a fiery curry in the only restaurant in town, we found rooms in the circuit house where we bedded down along with a remarkable assortment of insect life.



Photo: P. Cox



Photo: H. Gunn

PLATE 7.—Rhododendron formosum (pink form) growing in the garden of Mr. E. P. Gee at Shillong, Assam (see p. 64)

PLATE 8.—Rhododendron succothii, a new species described by Mr. H. H. Davidian and named in honour of Sir George Campbell of Succoth, Bt. (see p. 103)



Fig. 34 (left).—Rhododendron nuttallii in North East India (see p. 57)

Fig. 35 (right).—Rhododendron mucronatum. Exhibited by Sir Giles Loder, Bt., Leonardslee, Horsham, Sussex, at Chelsea Show

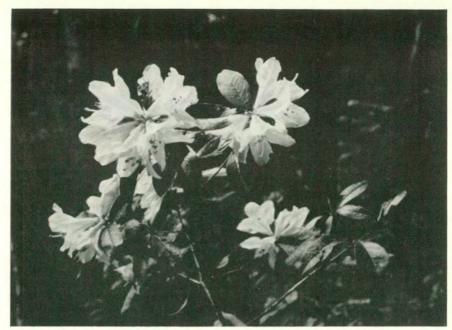


Fig. 36.—Rhododendron parrae in North East India (see p. 67)



Photos: Peter Cox

AN EXPEDITION TO NORTH EAST INDIA, 1965 Fig. 37.—*Rhododendron formosum* (white form) growing in the garden of Mr. E. P. Gee at Shillong (see p. 64)

THE NORTH-EAST FRONTIER AGENCY

Along the foothills of the Himalayas, on the north side of the Brahmaputra plains, runs the Inner Line, separating two entirely different worlds. To the north lies the intricate, folded country of the Himalayas, where everything seems to live on the near perpendicular. To the south are the immaculate tea gardens, the thatched villages with their betel-nut palms and banana trees and the huge grey river itself, flanked by the ever-changing mud flats.

We left the next evening for Zero. The new road is no mean engineering achievement, threading along the near vertical slopes and carving its way through dense subtropical jungle. From the foothills we could see the nine-thousand-foot ridge, which was to be our first objective, quite clearly. On the way we were taken to an agricultural experiment station and in a creaky bamboo hut on stilts, were fed on delicious omelets, raw onions and carrots, all washed down with rum. It was very welcome as apart from a banana for breakfast, it was the first food we had had that day. We were now in the country of the Dafla people and we saw parties of them on their way down to the plains. By now it was dark and groups of them huddled round their fires under the shelter of some trees. A ring-tailed civet cat was briefly lit up in the headlights as it ran across the road and occasionally a mithun loomed out of the darkness. The latter are semi-wild cattle.

Zero is situated at an altitude of 5,000 feet in the Apa Tani valley, which lies some 50 miles by road from the plains. This is the largest area of level ground in the eastern Himalayas. Our base was the newly built Circuit House, in which we were very fortunate to stay, before setting out for the south-east ridge. It is perched on top of a knoll, covered with *Primula denticulata*, overlooking the ricegrowing valley. The steep slopes that surround the valley are partly wooded although jhum or slash-and-burn cultivation has scarred them in many places. The first signs of temperate genera could be seen, and among other trees and shrubs, we found one huge tree of Ward's Carmine Cherry, *Prunus cerasoides* var. *rubea* (C. & H. 359). It was some 80 feet high and even after finding the fallen flowers on the ground, we could scarcely distinguish it from the forest canopy above. From the slope opposite, however, it stood out in a blaze of colour.

The NEFA Administration has been careful to preserve the tribal organization and to interfere to an absolute minimum in the running of the villages. Our first trip down into the village below

Circuit House brought us face to face with a row of Apa Tani chiefs who greeted us with cheerful grins and cries of "jai hind". They wore short red coats issued by the Government and underneath nothing but the traditional Apa Tani cane belts, dyed red and brought into a tail behind. Like some of the surrounding tribes, they have their hair gathered into a topknot on their forehead, with what looks like a knitting needle stuck through it, but the Apa Tanis have a distinguishing blue mark on their chins. They are short and stocky people, somewhat Tibetan in their general appearance, and we could not help noticing the tremendous development of their calf muscles. They are never without their dao, a short chopping sword which they carry slung across their chests and under their arms.

THE SOUTH-EAST RIDGE

We spent just under a week collecting in the area around the valley and making preparations for our trip to the ridge which we could see lying away to the south-east. Through our binoculars it appeared to be sprinkled at the very top with trees and shrubs in bloom, an enticing prospect. When the morning of our departure came, we had planned for an early start and were ready by 8.30 a.m. By 10.30 there was quite a group of porters sitting around chattering but it was another hour before the loads were lifted and the tin trunks tied to the head bands, with which everything is carried, by the flimsiest looking strips of bamboo. 20 kg. is the official government amount for a load and there was a good deal of testing of weights before everybody was satisfied. When we joined the collectors from the Botanical Survey, however, we found that only eleven out of the twenty porters they needed had arrived and these were demanding extra ration-carriers as the country to which we were going was uninhabited. The laid-down scale is that there should be one ration-carrier to every five porters and one sirdar to every ten. Finally one of the Botanical Survey botanists was left to follow on the next day when more could be collected.

Our first day's march was therefore only some $5\frac{1}{2}$ miles up over a low ridge, through 200-foot-high pines and then dense subtropical forest. These pines were *P. wallichiana* (*P. excelsa*) which tradition says were brought by the forebears of the Apa Tanis to this valley. Indeed it did not seem to grow naturally anywhere in the near vicinity. We finally dropped down to our first camp by a marshy clearing in the trees. Across the far side of the bog we could

see two plants with white flowers, and while the camp was being prepared we waded across through the mud to find that the first was rather a scraggy Michelia, rather surprising at this low altitude of about 5,400 feet, but cheering as the first sign of a temperate flora. As we approached the other shrub, however, our spirits rose. It was Rhododendron nuttallii (C. & H. 374) just coming into flower with its huge lily-like flowers almost luminous in the evening light. Unfortunately a fine crop of supposedly unopened seed pods which were there for the taking turned out to have been scoured by bugs with incredible thoroughness. We found not one viable seed. This was undoubtedly a magnificent form and it is sad that we failed to introduce it into cultivation (Fig. 34). This is as far east as typical R. nuttallii has been found. It appears to be a rare plant as Major Sherriff tells us that he never found it on all his expeditions. Closely related R. sinonuttallii comes from south-east Tibet. Rhododendron maddenii (C. & H. 375) also grew at the edge of the marsh, a low bush still of course in tight bud but again interesting to find at this low altitude.

Our first night's camp was a little disorganized as it was dark by 6 p.m. and the porters had made themselves at home on top of all our trunks under their tarpaulin, at any rate those who were not crowding around studying our every movement, examining our kit and generally getting in the way. However we spent a surprisingly insect-free night and the next day started climbing in earnest. The additional height soon brought us among more rhododendrons. First a mysterious little seedling with hairy leaves, then we started to find fallen flowers of R. parryæ (C. & H. 373). But it was some time before we could spot a plant in the high forest canopy and even later before one could be found growing on a tree that could be climbed. It was indeed a fine flower, white with a yellow throat and of course sweetly scented (Fig. 36).

What we thought was a poor but unusual form of *R. arboreum* turned out on our return home to be *R. peramoenum* (C. & H. 387) named by Mr. Davidian of the Royal Botanic Garden in Edinburgh. It usually comes from Yunnan. It had a very narrow leaf and unfortunately this form had a rather small truss of red flowers. We found it growing in dense forest, and as a result, it was very shy flowering.

At 6,500 feet among other rhododendrons was R. griffithianum (C. & H. 389), not nearly in flower, but these may be smaller than usual as the seed capsules which we did find were very small. Patricia Cox also found a seedling of R. edgeworthii (C. & H. 421)

and although we found this again several times, it never appeared healthy and no flower buds for this year were found. Both these

species grow to the west and east of here.

We stopped at the river which runs along the foot of the ridge which was our objective as we were told that from there on water would be very scarce. Fortunately every container was filled as indeed our next camp turned out to be dry and the porters cooked their rice for the evening meal along the riverside. It was most picturesque with the smoke rising among the river boulders and the jungle crowding in above us from the steep slopes. We then had a long steep haul to our next stopping place at 7,200 feet, perched on a spur of the ridge. There we were joined by Mr. Kataki of the Botanical Survey who arrived after dark with extra porters and supplies, having done some hard marching. They came through the forest, now dark, carrying blazing torches of pinewood.

The next morning we were woken early with a high-pitched argument going on among the porters. It appeared that there was some sort of strike on; they wanted more money, they wanted to go home, but basically the trouble was that this was the season for cultivating their rice fields and their absence would be unpopular. Mr. Mitra, the NEFA official who had been detailed to accompany us, had been plagued with deputations of porters all night and by the morning had reached the end of his tether. We heard shouting from his tent and he came rushing out brandishing his revolver in all directions and releasing torrents of abuse at the

porters.

This touch of drama appeared to do the trick and we were soon on the move again. The forest above the camp was in full and spectacular flower. Michelias were hung with fragrant and fragile flowers; in all there appeared to be three species. The stark branches of *Magnolia rostrata* were not yet in leaf and far from flowering but the litter of cones on the forest floor was proof of last

year's abundance.

Soon, at 7,500 feet, we found another rhododendron similar in appearance to the *R. peramoenum* growing lower down, but this had papery leaves with none of the plastered indumentum common in the *Arboreum* series. It looked like one of the *Irroratum* series, which was correct as it turned out to be *R. kendrickii*. This grew in a narrow belt up the mountain side up to 8,000 feet, and was a small tree to 20 feet with a fairly tight truss of unspotted dark red flowers. We searched all round for seedlings with no success and could only find a tiny pinch of seed, but of course from this eleva-

tion, it will definitely prove tender. This species, like R. nuttallii,

has been collected previously in Bhutan.

Rhododendron grande (C. & H. 431) soon began to appear, magnificent trees in full flower varying from cream to pale yellow, sometimes with a strong pink tinge. The trees were often as much as 50 feet high with trunks 2 feet in diameter; they were a magnificent sight wherever a view could be had, although standing under them one could scarcely see anything except the trusses silhouetted against the sky and well out of reach. Luckily there was an abundance of small seedlings to be collected. This form, unlike some from further west, has a good compact truss and should prove a first-rate plant for mild or sheltered gardens. We were very lucky in hitting it at its best, and hope that in a few years' time, many fine specimens of this form will be seen flowering as wonderfully as we saw them, in the mild western areas of Britain. R. grande is a common plant in Bhutan and Sikkim. A small-leaved form of R. vaccinioides (C. & H. 419) was common on the trunks and branches of R. grande and other trees from 7,500 to 9,000 feet. This is reported to have lilac-pink or white-tinged-with-pink flowers, inch long, but these were still in bud on our visit. It is a widespread species having been found as far apart as Sikkim, southeast Tibet and Nagaland.

We made camp in a small damp hollow below our ridge where again, in spite of continual drips, we were short of water and had to rely on a tiny trickle on the hillside. This was to be our base for exploring the ridge. It was hard even to cook a meal with the sodden wood around and before long the ground was everywhere churned to mud, as the party was in all nearly seventy strong. There were our own porters and those for the Botanical Survey and of course there were ration-carriers and *sirdars* for these porters. In addition Mr. Mitra, of the NEFA Administration, had brought a party of Government Nepali porters for his own use. It was a fairly crowded encampment perched in this damp notch on the moun-

tain side and level space was at a premium.

From this camp we spent some time making excursions along the ridge and into the rain forest that clothed its flanks. On one occasion we scrambled several hundred feet down the almost vertical slope and very nearly got lost on the way back, eventually arriving at camp in a state of near-exhaustion. The crest itself was about 6 miles long and shaped something like a tent with two small peaks at either end, the one just above our camp being 9,250 feet and the one at the far end 9,750 feet. It was cold and

dismally wet up on the ridge. Although the rain was not quite continuous, the mist was and indeed the shrouding only broke twice for intervals of a few minutes during all the time we were there. The result was that the forest formed a ceaselessly dripping canopy; even when the rain stopped the slightest gust of wind would bring

a rattle of drops on the taut roof of the tents.

On the ridge, the spine itself was often only 3 or 4 feet wide, but the thickness of the forest and the mist prevented one from having any sense of the immense drop on each side of this precarious little gangway perched 9,000 feet up in the clouds. The curious feeling of being in a private world was only broken when the mist suddenly parted and revealed a breathtaking panorama. To the north were endless folds of the Himalayas, looking as if they had been cut from varying shades of blue cardboard. To the south the hill ran away in an almost unbroken slope to the plains of Assam, sunlit more than 8,000 feet below us. We could see the twisted ribbon of the Brahmaputra and even the Subansiri river running out to join it. It was only minutes before the mist hemmed us in again.

The temperate rain forest which covered the ridge was a remarkable plant community. The dominant plants were rhododendrons, particularly *R. grande*, with other evergreen trees and these formed a nearly continuous canopy 40 to 50 feet above the ground. Here and there one could see the sky where a deciduous tree had not broken into leaf, perhaps a species of Sorbus or *Magnolia campbellii alba* with its great flowers looking like white birds perched on the branches. Below this canopy the ground was relatively clear except where brakes of bamboo occurred. Underfoot there was a springy layer of humus often feet thick and covering the ground so completely that we scarcely saw a stone or bit of bare rock along the entire 6-mile length of the ridge. It was evidence of the tremendous accumulation of vegetable matter, growing and falling and then being preserved in this thick, quiet layer, half-decomposed.

Everywhere, covering everything, was moss; thick wads of it on the upper sides of branches, drapes of it on the lower, long wisps of it hanging from the twigs and leaves. In this moss wrapping of the forest existed a whole plant community of its own. There were many epiphytes, species of Agapetes, Vaccinium and Smilax and little Pleione maculata whose white flower occasionally

studded the dark green of the moss.

The only plant which escaped this covering of moss was a most

interesting Rhododendron (C. & H. 418). We called it "Old Baldy" on account of its great trunk of pinky-brown bark, which gave the moss no foothold and left it looking rather naked in this forest. In spite of its name it was a fine species, obviously close to R. neriiflorum, but a tree of up to 45 feet in height. At this time, in mid-April, the flowers were nearly all over and the growth buds well advanced. The flowers were waxy red in trusses of ten to fifteen. Young trees of 15 feet were still unflowered but this was in dense shade. In cultivation in a more sunny situation they may start flowering very much younger. This plant is undoubtedly one of our most exciting finds as true R. neriiflorum is a shrub of 6 to 9 feet and its sub-species euchaites grows to barely twice that. In fact no member of the Neriflorum series with the exception of R. mallotum ever makes anything approaching a tree let alone one with a trunk 2 feet in diameter. Most of this series comes from further east.

Another notable rhododendron was *R. arizelum* (C. & H. 427). At first seen only in bud, we later saw a colony in full flower, a beautiful form with fine foliage and lovely deep rose-pink flowers. Again we were lucky to be able to collect a number of seedlings of this plant. It was an interesting find as *R. arizelum* has never been recorded from so far west before. Previously its habitat was regarded as being north-west Yunnan and Upper Burma. This grew just below the summit and on one or two smaller rises at about the 9,000-foot mark. In one place it was mixed with *R.* "Old Baldy" which itself is often growing along with *R. grande. R. arizelum* here makes a small level-topped tree of 30 feet with fine dark rugose foliage with a lovely thick red-brown indumentum.

R. maddenii (C. & H. 438) was fairly common, especially along the top of the ridge. As it grew in dense shade, it was shy flowering and on the many plants we saw, there was only a total of one flower bud. But it must flower better some years, as an abundance of small seedlings were to be found on many mossy stumps and trunks. Here this was a very variable species with a tremendous

variety of leaf shape and size.

There were a number of other interesting plants in this rain forest including two species of Daphne, a Clethra (C. & H. 403) probably *C. delavayi*, but probably the most surrealist figure in the whole community of the rain forest was a holly, *Ilex nothofagifolia* (C. & H. 424) which scarcely ever reached the canopy above and so had to live its life in the gloom. To catch what light there was its branches were spread out in great horizontal fans, each of the

tiny leaves touching one another, in crinkly layers of rich green. From these tabular layers of foliage the moss hung as always in

drapes.

As might be expected, herbaceous plants were scarce in the dark rain forest. We did, however, see two species of primula, both growing in quite dense shade. One belonged to the *Cortusoides* section (C. & H. 444) and was a charming little plant with clear pink flowers. It was uncommon and we only saw three or four plants of it in all. The second primula (C. & H. 446) belonged to the large

Petiolares section and had mauvy-pink flowers.

The very tips of the two peaks at each end of the ridge were the only places cleared of forest and without the competition of the rhododendrons. There we found several plants growing which we failed to find anywhere else. Rhododendron micromeres (C. & H. 420) grew on stumps of trees and fallen trunks and sometimes the bare ground. It was not quite in flower when we found it but a collected plant was later seen to have pale yellow flowers with greenish spots. We were able to collect both plants and seeds of this species. It is at present very rare in gardens but should be possible to grow in the milder west-coast areas. This species is usually epiphytic but we could have missed seeing it in the tops of trees lower down the ridge. The distribution ranges from Bhutan to Burma. Also on the first peak grew Rhododendron euchaites (C. & H. 422) which, unlike "Old Baldy", had a glaucous underside to the leaf; as well as this the young seedlings were hairy whereas the latter had glabrous leaves. The growth and flowers had not yet started to move and altogether it was totally different from "Old Baldy".

Other interesting plants growing on the peaks were a Leucothoe, Hypericum, Osmanthus, Vaccinium and what looked like a

Weigelia.

By the time we had made thorough collections on the ridge it was getting on in April and the porters were getting restive. They had little protection against the cold and wet and Patricia Cox had a regular flow of requests for aspirins and "something to take the cold away". We had also assembled quite a nursery of seedling plants, bedded down in moss in the hollow of an old tree, and the 21st April was spent packing them into baskets and tin trunks. It was pouring with rain as usual and while we were fortified with relays of hot soup we could reflect on the advantage of having women on expeditions. The next morning we left for the journey back, and we were soon out of the drips. A sufficiently small Mich-

elia was found to cut down, to enable us to get some specimens. This took quite a bit of doing. We shed layers of clothes as we

gradually dropped down each thousand feet.

When we reached the marshy area where we had made our first camp, some time was spent exploring the forest round about. A long search was made for mature specimens of the small hairy rhododendron which we had collected on the way up, and eventually three rather unhealthy-looking plants were found after we had just about given up hope of finding it. This was later identified as a member of the Cilicalyx subseries of the Maddenii series (C. & H. 475). The flower buds were swelling and when we cut them open it appeared that the flower was going to be yellow. Fortunately we managed to obtain a little seed of this interesting plant. There was quite a difference in the foliage of the hairy seedlings and the three mature specimens so there is still a doubt whether these are in fact one and the same species. We also found another most interesting rhododendron (C. & H. 459) although at first we scarcely recognized it as belonging to this genus. It was a small epiphytic shrub with curious leathery leaves and after we had found some capsules we came to the conclusion that it must belong to the Vaccinioides series on account of the long "tails" on the end of the seeds. The leaf shape is elliptic, which is totally unlike most members of the series which have a retuse apex. The plant itself hung down off the trunks of trees with a very loose sprawly growth.

Shortly after we arrived back at Zero our fears were confirmed. We received a telegram informing us that we were to be restricted to the south-eastern area that we had just visited and all the most promising high country to the west and north was forbidden. After this there seemed little point in remaining at Zero, so after more collecting around our base we regretfully left this most attractive valley, the Coxes for Shillong where they could look after the plants which had been collected, while Peter Hutchison went on from there to Delhi in a last attempt to get the authorities to change their minds. Their flat refusal to do so effectively brought the trip to a disappointing end and Peter Hutchison left for Britain,

SANDAKPHU

After Peter Hutchison had left for Delhi and we (Peter and Patricia Cox) had got the seedling plants nicely settled down in Shillong, Mr. Gee suggested that if the rest of NEFA was completely refused, why not go to Sandakphu near Darjeeling from where he had

recently returned. This was one of the few Himalayan areas for which a permit could be obtained, and although the flora was well known it would give us a chance of collecting more material and seeing the Himalayas properly. We promptly wrote off to Peter Hutchison to suggest that he joined us at Darjeeling. Shortly after this a telegram arrived from him saying that all permission had been flatly refused and that he was off home. Unfortunately he left Delhi before our letter arrived.

Local enquiries proved that a permit had to be obtained from the West Bengal Government in Calcutta so off there we went into the sweltering sticky heat. This gave us a good opportunity to fix our arrangements for the journey home. We collected our permit, this time a mere formality, and took a non-scheduled flight to an airfield near Siliguri. The plane turned out to be the usual Dakota with no pressurization and no lining to the interior. We shared a rickety old Austin taxi up to Darjeeling in the dense mist and drizzle with no windscreen wipers. Even though this took half the time of the train, we arrived late and were lucky to get a room for the night. We were able to hire a Land-Rover easily, and take on an excellent bearer who even climbed trees to collect seeds and specimens for us.

The next day again proved misty and remained like this all the way to Sandakphu. The road was only just good enough for even a Land-Rover and later it broke a spring. That night there was a violent storm with a howling gale, lashing rain, endless flashes of lightning and crashing of thunder. At 4.30 a.m. cries of "Come and see Everest" had us up in no time. Suddenly the storm had ceased and left the atmosphere crystal clear. The whole range from west of Mt. Everest to east of Kanchenjunga could be seen. We watched the sun rise and light up the snow peaks, with the area below the clearly defined snow line a deep blue. Much of the earlier part of the morning was spent photographing this magnificent spectacle but keeping the tripod steady in the wind was a problem. Blue and white anemones carpeted the area in front of us. Vast acreages were covered in weather-beaten Rhododendron campanulatum with R. cinnabarinum var. roylei (C. & H. 579) amongst it. The latter was not yet in flower at this elevation. The R. campanulatum was a very poor form with a small truss, and an occasional white form among it also had a poor truss. But the combination of a foreground of R. campanulatum in flower, and a background of the mountains, left an unforgettable sight. After breakfast we set out in the direction of Phalut, 14 miles towards

Sikkim. We soon came across an open space of ground covered with *Primula calderiana*(?) growing in an area where the snowlingers long. One gully had hundreds of plants, a fine sight. All were of an

attractive magenta.

Further on we came across Rhododendron hodgsonii (C. & H. 581) at the edge of Abies forest. A few plants were an unusually good form with rose-pink flowers with no blue in them. Many were over but a few fine full trusses remained. An hour's search produced a few unshed seeds, but no seedlings small enough to fly home could be found. Some small stunted plants of only 4 to 5 feet were flowering but they may have been of considerable age. Also at 10,000 to 11,000 feet, a little further on, grew R. barbatum (C. & H. 580) nearly all finished flowering, though a few fine scarlet trusses remained. Some plants with longer narrower leaves and no bristles, otherwise resembling R. barbatum, were found. This may be what is called R. imberbe in cultivation. Here too, were plenty of R. arboreum with flower almost over, mostly poor, varying from an indefinite red to pink. The indumentum sometimes approached the rusty colour of R. cinnamomeum. A little lower down Rhododendron falconeri became mixed with R. hodgsonii and a whole range of natural hybrids occurred between them with flowers often of a nasty muddy colour. This has been known as R. decipiens.

On the steeper open ground around Sandakphu and on the way to Phalut there were patches of *R. lepidotum* of which none were yet in flower. Some of these are recorded to be pale yellow. Near Phalut the country gets very bleak. There are whole forests of horrid stunted Abies with the ground littered with fallen trunks. Many have dead storm-damaged tops. When grazing causes erosion of the top soil and cutting the trees opens up the canopy, surrounding rhododendrons and other shrubs soon go back. Here we found *Pleione hookerianum* growing in moss on a dying tree. This was a lovely sight in an ugly area. We saw both pink and white forms. We failed to find *Rhododendron thomsonii*, *campylocarpum* or *wightii*, all of which have been found in and around Sikkim.

Our return journey to Siliguri in the plains was unfortunately rather rushed but the day was largely clear. A grand view of Kanchenjunga could be seen from various points en route. R. falconeri was common a great deal of the way down from 10,000 to 9,000 feet. This form had cream-coloured flowers, rather drooping and was very floriferous (C. & H. 584). It appeared to be a form that is often seen in old gardens. One group of R. triflorum (C. & H.

586) was found in a heavily grazed and hacked off area. The one plant in flower was quite small and compact but no doubt somebody had pruned it! Several plants of *Meconopsis napaulensis* grew round about and a little lower down *Piptanthus laburnifolius* was in full flower.

At this altitude were fine specimens of *Rhododendron cinnabar-inum* var. *roylei*, with still some in flower when we passed. They were a waxy plum-crimson colour with bloom on the outside and were pendant. We stopped a little later on to lift *R. falconeri* seedlings growing on the roadside bank and found below them in damp soil, a petiolaris primula (C. & H. 587) which had finished flowering. We collected a few plants of it. We had our last view of the snows through a gap in the forest which here is quite dense and unspoilt. Near by we found a very fine Enkianthus, presumably *E. deflexus* (C. & H. 578) with larger flowers than usual rimmed and lined with wine red. An occasional *Rhododendron lindleyi* appeared along the roadside, hanging from a tree or bank.

Below here R. grande started to appear. This and R. arboreum made up forests by themselves; R. grande had of course long finished flowering. Around Darjeeling on rocks and trees a great quantity of coelogynes were in full flower, quite easily seen even in the thick mist. Also here we saw several mostly inaccessible plants of Rhododendron dalhousiae (C. & H. 585), greeny yellow when first out later fading to cream. Below Darjeeling, Zephyranthes, a native of America, had gone wild and great groups of it were most colour-

ful, looking as though they had always grown there.

We took our first and last train in India from Siliguri to Gauhati. The journey was quite comfortable in itself but the wait for hours on the platform for it to come amongst dozens of prone smelly

bodies, was not a very pleasant pastime.

We had a brief stay back in Shillong to pack up the plants before setting out for home. These were packed tightly in small baskets surrounded with polythene, which were then wired into larger baskets. Considering that many of the plants were in full growth, they travelled surprisingly well with not much damage. This was largely due to the great help from our agents in Calcutta, who met us off the plane, and made arrangements with the health authorities and saw that they were air conditioned. Thanks are also due to Kew who handled them in London. This may be the first time that a quantity of rhododendron seedlings have been collected in their natural habitat, then flown home in the growing season.

SUMMARY

We found in all about thirty species of rhododendron, only three of which we saw in more than one place. These were R. lindleyi, R. grande and R. arboreum; the last was in fact a different form in each district. Of these thirty, sixteen were on the ridge south-east of Zero, NEFA, five of which have an eastern distribution, five a western and four come from both. The other two are so far unnamed and may be new species. So as might be expected, the species from here seem to be divided about equally between a western and eastern influence.

The area we were able to visit in NEFA proved to have a fascinating flora but owing to the limited elevation, many of the plants will prove too tender for general cultivation in Great Britain and North America. It was tantalizing to find ourselves so near the high country, waiting to be explored and obviously full of rhododendrons. However we do feel that the expedition was in many respects fruitful and it was certainly an unforgettable experience to have visited and collected in an unknown corner of the Himalayas.

COLLECTING RHODODENDRONS IN NEW GUINEA

By MICHAEL BLACK

AT present there are more than 220 recognized species of rhododendron in New Guinea, with every possibility of this total reaching 300 when more of the country is explored. As the only ones with which we are really familiar in this country may be counted on the fingers of two hands, it seemed to be high time to go and hunt for more of them, and to bring back plants and seed in order to assess their undoubted horticultural value. The flower colour of many of them is striking, with a clarity which I found most refreshing, and they should prove a worthy complement to the species we already cultivate from the Asian Mainland. A great deal of interest in this neglected branch of the family has been shown by rhododendron enthusiasts abroad, especially in Holland and the United States.

Dr. Cowan once wrote me, "An expedition to a largely unknown tropical country is not to be undertaken lightly." However, I flew out to Lae at the beginning of April, arriving in time to attend the opening of the new herbarium by Sir George Taylor. The Chief of the Division of Botany, John Womersley, suggested I fly to Kainantu in the Central Highlands to get the feel of the country for a few days before beginning any serious collecting. Here I met my first rhododendron, R. macgregoriae, with orange-yellow flowers, growing in open kunai grassland associated with hypericums and a vaccinium with delicately scented flowers and attractive pale bronze young growth. Walking a mile through the kunai, rhododendron plants occurred sporadically right up to the edge of a near-by forest, but within 50 yards of the trees the number of plants increased tenfold, with hundreds of seedlings in all stages of development. They did not however extend more than five yards into the shade. One of the botanists in Lae told me that he found a whiteflowered form of this species in this area—I had no such luck. It has a reputation throughout the country of being exceedingly poisonous to livestock, and I was told of three mules which had recently expired after eating small quantities of the foliage. The next few days were spent trying to talk with the natives and learning something of their customs and way of life. Returning to Lae to collect my gear, I set off in a Land-Rover for Edie Creek near Wau, which lies at 6,500 feet, and quite often experiences hoar frost—cold enough while I was there to sleep in an extra pullover.

Vast quantities of gold were mined here thirty years ago, and now the sluiced areas are thickly colonized by ericaceous plants, especially rhododendrons. It was not at all what I had expected, with very little humus, shade or surface moisture, though the rainfall here is about 100 inches. The gold workings are composed of a sandy clay studded by rocky outcrops and low cairns, the surface of the clay caked so hard that most of the rain must quickly run off into the near-by creek. My first soil sample was taken here.

One of the few plants in flower was R. gracilentum, with pretty pink bells (Fig. 39). It has the appearance of an alpine, though it has not yet been found at a greater altitude than 9,000 feet. Prominent among the other species here was R. luteosquamatum, which has rather shoddy small red tubular flowers. More impressive was R. konori, which we used to hear of as R. devriesianum, growing up to 7 feet high, with large white tubular campanulate flowers with seven petals generally tinged pink near the base, the tube flushed pink inside and out (Pl. 9). They are scented like carnations. While unfolding they look rather like bloated barbers' poles. R. herzogii has a scent more like honeysuckle, with white flowers of the same character. I was delighted to hear from Patrick Woods in Edinburgh that this species has recently flowered there. Like many other New Guinea plants, R. beyerinkianum has most attractive "old gold" dense scaly young growth. R. leptanthum was also here, and though still in the open did show a slight preference for sandy and more shady spots. I also found R. nummatum, R. anagalliflorum and R. invasorium which normally grows at a much greater altitude. Other species found have not yet been identified by Dr. Sleumer of Leiden, who has been in the area, and accomplished a great deal in his classification of its ericaceous flora.

Walking along the Bulldog Road from Edie, which was gouged through the mountains and thick forest during the war, and is now reduced to a narrow native track, it was noticeable how many species had made themselves at home on the steep cuttings in the hillsides, and to a lesser extent on the road itself. While digging some of them up, I was amazed at the depth to which the roots

penetrated, up to 2 feet in the case of small plants about 3 feet high, with very little surface rooting. The roots are thick and of a soft consistency, pruning shears sliding through them with ease. This applied to all the rhododendrons I met. These roots seem capable of storing a considerable amount of water, enabling the plants to thrive almost xerophytically on hot dry banks during dry spells. Though it was the driest part of the season, many of them were putting on new growth. As the road twisted deeper into the primary forest, R. konori became more common, and one plant I saw in the middle of the path though persistently broken down by passing natives still continued to thrive. This species should stand any amount of pruning. Very large plants were seen growing epiphytically, the largest being more than 10 feet high. Some were growing at a height of 80 feet in the forks of trees or on their mossand orchid-festooned trunks and branches. It was interesting to see that the roots here invariably run vertically, and do not clasp a

supporting trunk laterally to any appreciable extent.

From Edie, I drove up to the South Summit of Mt. Kaindi at 8,300 feet. It was a very steep rough road requiring four-wheel drive almost all the way. There were young rhododendrons on the road cuttings, but seldom in damp shady spots, which were very often taken over by an interesting Gunnera, with occasional plants of Astilbe papuana and hosts of ferns and mosses, including some excellent sphagnum which was most useful for packing. Moss forest surrounded the summit, and the area was conspicuous for a number of fine foliage plants such as Rhodomyrtus novoguineensis with its outstanding furry wine-red young foliage, a species of Poikilogyne with purple leaf under-surfaces, and an Archboldeodendron. In the forest rhododendrons grew terrestrially in the few places to which the sun penetrated, but most were epiphytic. Many of the plants found on the gold workings turned up again here, this presumably being one of their primary stands, but one wonders if in fact they were in ages past terrestrial and have had the "wits" to get themselves into the treetops to survive. They quickly come down to earth if given the chance. These plants obviously have a flowering season, probably in August, and do not usually flower intermittently throughout the year, consequently there was very little seed available. I dug up over a hundred, a representative cross-section. Many of them were in growing condition, so I left a good deal of soil round their roots, swathed them in sphagnum wrapped in plastic, put layers of newspaper in between and packed them in wooden boxes and tea chests. The trip

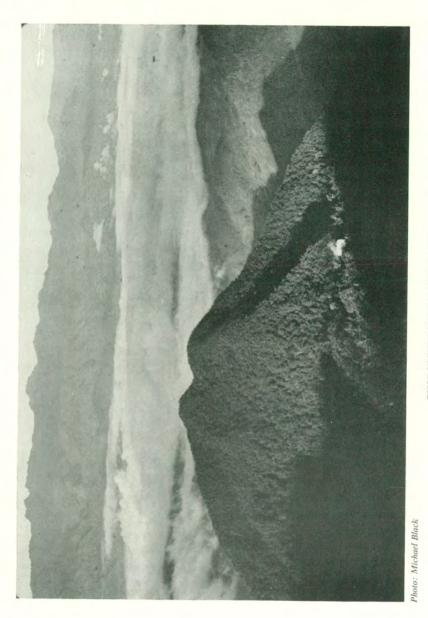


Fig. 38.—Mr. Black's camp on the ridge approaching the Waghi-Sepik Divide (see p. 85) RHODODENDRONS IN NEW GUINEA





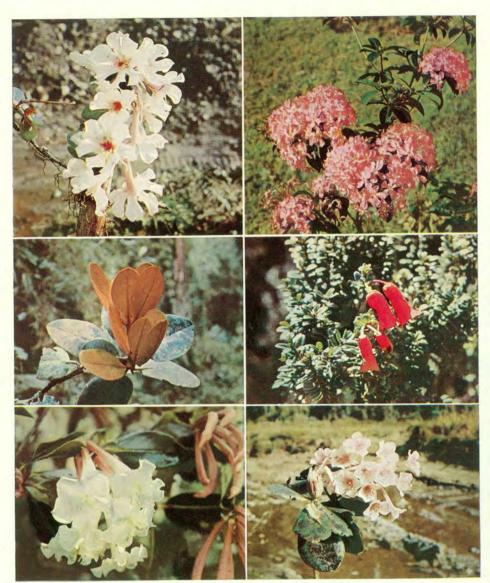
Photos: Michael Black

RHODODENDRONS IN NEW GUINEA

Fig. 39 (top).—*Rhododendron gracilentum* at Edie Creek, New Guinea. It has pretty, pink bells (see p. 79)

Fig. 40.—A *Rhododendron* species with deep pink, scaly flowers found at the Waghi-Sepik Divide (see p. 85)





Photos: Michael Black

RHODODENDRONS IN NEW GUINEA

PLATE 9.—Rhododendron konori (top left see p. 79); the best form of R. macgregoriae from Sirunke (top right see p. 83); foliage of R. konori (centre left see p. 87); R. womersleyi from the Waghi–Sepik Divide (centre right see p. 85); an epiphytic Rhododendron species on the Fatima River (bottom left); a R. pleianthum from Kerigomna Sia (bottom right see p. 87)

home by air freight took six days, and 90 per cent of the plants arrived in excellent condition.

From Edie Creek I travelled back to Wau, and visited the Macadam Park with John Womersley. This is a very fine nature reserve, with an attractive small lake bordered by an impressive planting of Araucarias. We thought that many of the Burmese rhododendrons would do well here, and that Gunnera manicata would look well beside the lake. Arrangements are being made to send some of these to New Guinea in the autumn. Driving back to Lae, we saw R. aurigeranum in a grassland gulley near Patep Creek, which lies a few miles beyond Bulolo at about 2,000 feet. While it would be surprising if this species proved even half hardy in this country, it should prove a first-class ornamental in such a climate as that of California, and a very satisfactory pot plant here. This is one of the few N.G. rhododendrons which will actually need heat in winter; others will need to be kept just frost free, and some should be hardy, certainly on the West Coast. R. commonae has already survived a couple of winters outdoors in Holland. On the Markham Ridge 2,000 feet above the head of the Huon Gulf, grows another low-altitude rhododendron, R. retrorsipilum. Growing epiphytically, it reaches 6 feet, and has small white tubular campanulate flowers of little decorative value.

On my next excursion, I flew up to Mt. Hagen in the Western Highlands, and from there drove over Tomba Pass to Wabag. Tomba lies on the slopes of Mt. Hagen itself, at about 8,500 feet. The area is rich in rhododendrons, both in grassland and forest. Among the more conspicuous was R. herzogii growing up to 9 feet and poking its head above the surrounding grasses and scrub. In the young state it is a most tidy symmetrical plant with the typical leathery leaves of the N.G. species. The road here is rough, and we came upon a steep embankment beyond Tomba thickly colonized by at least six species, including R. rarum. Its specific name seems incongruous as it was the most common rhododendron I met in the Western Highlands. Usually an epiphyte, here it was growing in hard moss-covered clay similar to that at Edie. It is a loose-growing plant when epiphytic, and will straggle up the mossy trunk of its host for as much as 5 feet. It has most elegant lanceolate leaves with pretty scarlet tubular flowers about 2 inches long; some forms are met with deep pink corollas, in heads of two or three.

Running short of time, I hastily gathered a soil sample and made a mental note to look over this spot on my return journey, to collect some of the young plants. It was noticeable they grew on that part of the bank which was most exposed to the sun, and

rapidly thinned out on the few flat ledges.

Driving down the impressive Lai Gorge, odd rhododendrons were seen all the way, large clumps of *R. macgregoriae* being prominent as many of them were in flower in the grassland. On arrival at Wabag in the late afternoon, I was amazed to find that it had taken almost ten hours to cover the eighty-odd miles from Mt. Hagen, largely due to rough road conditions. John and Jill Flenley who were up there doing ecological research for Canberra University, generously put me up for the ten days I spent in the area, and lent me two of their native assistants who knew the lie of the land—invaluable assets.

The next day we drove along a hair-raising new road to the top of the Kandep-Lagaip Divide at 9,600 feet, where the scenery was splendid with mountains fading away into the pale blue distance. Growing epiphytically on trees felled to make the road was an interesting rhododendron with sessile orbicular leaves and bright red flowers. It was most ornamental. We did not have time for a full-scale hunt here, as it looked like rain, and it was not a good place to be bogged down, miles from anywhere. In the Lagaip Valley on the way back I collected what I took to be R. warianum, and another species with beautiful pink flowers R. leptanthum. There was also a fine vaccinium with sessile leaves, and young growth which would compare favourably with Pieris forrestii. There were exquisitely graceful trees of Papuacedrus, both P. oligodon and P. papuana, the latter being more compact with darker foliage. One area of grassland was especially interesting, and I returned later to spend a whole day looking over an area of about fifty acres. It was in a shallow valley with a stream running along the floor in a channel 20 feet deep, in places cutting through deposits of volcanic ash. In general the area was very wet, but had grassy tussocks sticking up 3 or 4 feet above the damp level. Native pigs ran between these, and their tracks made it easier to travel, but one still needed a jungle knife to cut through the thicker brushwood. In the tussocks most of the rhododendrons and other shrubs grow jumbled up together, with their roots almost inextricably entangled; they included Hypericum and Dimorphanthera, with zingibers and the inevitable orchids, ferns and lycopodiums. It was noticeable that almost all the rhododendrons had most of their foliage disfigured by insects, and the loss of new shoots had led in many cases to grotesquely shaped plants. It occurred to me that

it might be interesting to collect and identify some of these pests, so during the remainder of my trip I collected as many as I was

able and pickled them in 60 per cent alcohol.

About noon it began to rain heavily so I retired to a near-by village and sat smoking in the men's house until it eased off. The locals smear themselves with pig fat which smells strongly when a number of them are huddled round a fire, so I was pleased to get outside. Resuming operations I struggled through the wet scrub down towards the stream, and was rewarded by the discovery of two apparently natural hybrids (Fig. 50). In both cases one parent was certainly *R. macgregoriae*, and the other was most probably the fine pink-flowered species *R. leptanthum*; the foliage and flowers were intermediate between the two. It was difficult to estimate the extent of natural hybridization, or even to identify accurately plants when so few were in flower, but I feel sure they hybridize reason-

ably freely.

All the rhododendrons were well mixed in the grassland, and no species was predominant in any particular area. The natives knew them well though they had no domestic or medicinal use for them. Occasionally they used R. macgregoriae to make a hedge round gardens of sweet potatoes which were at their upper altitudinal limit here. The altimeter recorded 8,400 feet, and the crops appeared scanty. They told me that in 1941 there was a disastrous frost which lasted a fortnight, destroying much of the food crop and creating a famine. The local population was forced to go down to lower altitudes where they received a hostile reception from their traditional enemies. Word of the frost was music to my ears, as many of the rhododendrons were older than thirty years. Some of the species in the area were R. warianum, with long lanceolate leaves and red flowers, R. vaudeursenii, R. scabridibracteum, R. commonae, R. dielsianum and one of the finest forms of R. macgregoriae I met, with huge multiflowered trusses reminding one of a hydrangea when viewed from a distance (Pl. 9). The remainder have yet to be identified.

After two unsuccessful attempts to drive back to Mt. Hagen due to some of the bridges being washed out, I finally made it after a stop at Tomba and a brief skirmish up the slopes of Mt. Hagen. I sent off my plants, then drove down the Waghi Valley to Nondugl, the roadsides ablaze with dark red cannas. I was most hospitably received by Mike Newcomb, who was growing coffee there. Fred Shaw-Meyer's collection of Birds of Paradise was fascinating, but I was surprised by their raucous crow-like calls, as

if a primadonna were to belch!! There are very spacious gardens at Nondugl inspired by Sir Edward Halstrom, with fascinating tree ferns and huge fountains of bamboo erupting from the lawns. Fine trees of Papuacedrus, which look like Lawson's Cypresses from a distance, added to the effect, as did trees of Ficus dameropsis, one of the most effective foliage plants I know. Round the ponds, and in the shade house, Fred Shaw-Meyer had planted several rhododendrons which he had come across during his extensive travels collecting zoological specimens. The only ones in bloom were R. konori, whose scent floated among the trees with the fireflies in the evening, and R. macgregoriae, several compact plants in a raised bed, including a fine yellow form. This species is found down the whole length of the Waghi Valley, often in very dry situations. Its range of distribution is great. I found it growing as high as 8,700 feet, and as low as 4,000 feet. Near Nondugl I also found R. phaeochiton with its interesting furry young growth, and was much surprised to see an old hybrid of R. arboreum outside one of the houses. It must have an interesting history and was probably imported from Australia.

For three days Mike Newcomb and I waded up the rivers Al, Ga and Kori, above the station, and scrambled up the neighbouring hills to about 8,000 feet. It was tough going, but our natives cut their way through the forest like machines. We saw many rhododendrons here, mostly overhead, but even out of flower their foliage was distinctive. R. rarum was by far the most common. On the banks of the rivers there were several species growing terrestrially, one with leaves which reminded me of a hardy hybrid, but the locals passed it off as being of little account, with very small flowers. Identification of this and other species from this area is proceeding, but I am reasonably certain they include R. anagalliflorum, R. scabridibracteum, R. konori and R. gracilentum.

After a week's training we set off with nine natives and a couple of youngsters to climb Mt. Manduil and the Waghi-Sepik Divide, which rises to over 12,000 feet. Climbing up through the moss forest was one of the toughest climbs I have done, and real will-power had to be exercised to push on for hour after hour, scrambling often almost vertically up a muddy track over fallen trees with ever shortening breath, and being assiduously attacked by leeches and a species of biting fly (Simulium sp.) which concentrated on one's eyes, and appeared to enjoy cigarette smoke as much as I. Some of the natives pushed on ahead, and two of them, carrying five gallons of paraffin and a bag of sweet potatoes

swarmed up with as little effort as flies climbing up a window. It was with relief that we emerged from the forest quite abruptly at 9,500 feet, in pouring rain and with the temperature at 48° F. A rhododendron with fine obovate leaves edged the forest, and then we came upon an area of thick sphagnum with islands of shrubs, perched on top of a narrow ridge about 20 yards across, and falling away almost vertically on either side. Here we made

our camp (Fig. 38).

Climbing a thousand feet the next day we met gentians, Ranunculus and Potentilla, with a shrubby vegetation consisting of 60 per cent rhododendron, along with interesting species of Drimys, Olearia, Veronica and Vaccinium. A highlight here was the discovery of R. hooglandii in a new locality, the second so far recorded. It has extremely narrow linear leaves, closely recurved at the margins, and deep pink scaly flowers. Another species had very fine dense scaly coffee-brown young foliage and leaf under-surfaces. with deep pink scaly flowers (Fig. 40). The stigmas appeared to be white, but on close inspection they were seen to be thickly covered by a species of mite, which I collected. Whether this insect has any part to play during fertilization I am unable to say. We saw no birds at this height so it seemed unlikely that they play any significant role; this would indicate that insects are largely involved. I suspected a weevil which was present in the corollas of several species; R. beyerinckianum was one of them. It was interesting that many plants were growing simultaneously terrestrially and epiphytically, being rooted deeply through the sphagnum and into the mossy accumulations on the branches of adjacent Olearias. The natives were not keen to go higher, as this was the land of their devils, and they would not stay up there at night. However, we pressed on and came across such interesting species as R. womersleyi with its peculiarly congested leaves, fastigiate habit and pretty red flowers (Pl. 9), and R. commonae, with others of similar alpine caste. The summit of Mt. Manduil and the ridge of the Divide were grass-covered with rocky outcrops; several rhododendrons were growing in clumps and as isolated bushes all along. I was surprised not to find R. saxifragoides, which grows on Mt. Wilhelm at a similar altitude. This plant forms almost prostrate tufts of leaves with comparatively large red flowers standing well up above the foliage. The tap root is long, and I imagine it would be almost impossible to transplant, but it is a species well worth getting into cultivation, which will have to be tried from seed.

It was extremely cold at night, the temperature dropping into

the low forties. Frost is known to occur, and we had hoar frost outside the tent one morning. The plants here should be hardy, and will certainly not need to be pampered in hothouses. They should be able to stand a fair amount of shade as well as full sun, being accustomed to cloudy and misty conditions. It has been suggested to me that the decreasing amount of ultraviolet light at lower altitudes will upset their applecart. All I can say is that we appear to have got on all right with plants from much greater heights on the Asian Mainland. I collected about two hundred plants here, then set off by road for Goroka, only to be turned back at the approaches to Daulo Pass by a huge landslide which blocked the road for three weeks. While turning above the river I spotted several plants of R. macgregoriae growing epiphytically in the classical situation for a Javanicum, overhanging the water. There were orchids growing on their mossy trunks, epiphytes growing upon epiphytes. After collecting two other species I drove back

to Banz, and flew out to Lae the next day.

After working over some of the specimens in the herbarium, I joined a party of botanists headed by John Womersley on the Fatima River about twenty miles out from Goroka. Timber was being felled here, and it gave me an excellent opportunity of seeing a selection of epiphytes at close quarters. Predominant among them were R. konori, R. rarum and R. herzogii, with a good sprinkling of other species. Of the unidentified plants, one which was especicially attractive had finely scented tubular campanulate white flowers like coach horns, with rich green glossy foliage. The best plant I saw grew 8 feet tall and was 75 feet up on a Podocarpus branch. We only saw three all told, one of which I obtained after it had been stripped of its flowering branches for use as botanical specimens. Another more common species had small but attractive, clear red flowers. On one excursion to the upper reaches of the Fatima, we waded up the river bed for about 5 miles, sometimes up to the armpits in swirling water. The vegetation was so thick on either side that it was the fastest way to travel. Many rhododendrons grew in the gravel and among the rocks on the banks, and in one place where the river had changed its course there were quite a number colonizing the old river bed, which appeared to be pure sand and gravel, but I took a sample to see what the soil specialists have to say about it. I obtained plants of R. luteosquamatum here, which strangely enough travelled much better than the ones from Edie Creek. There were of course the inevitable plants of R. macgregoriae growing up to 15 feet and flowering their heads off. There were also large plants of *R. konori* overhanging the river by about 8 feet, and though not in flower, the young foliage was most attractive (Pl. 9). There was also a most interesting species with red tubular flowers, and another whose general appearance suggested that it was a hybrid of *R. rarum*. A peculiar, though not really ornamental, *Coriaria* spread itself in all directions, sharing the ground with a beautiful purple-flowered *Olearia*, tree ferns and rhododendrons. On the way back to camp it rained heavily, a cold biting rain which etched one's bones. It put a stop to photography for the day. Later we came across a very fine form of *R. rarum*, with flowers slightly larger than the type; this was collected under the New Guinea flora number 24571, and the

plant is now growing in my garden in the Lake District.

Another day we climbed up to Kerigomna Sia through thick moss forest, which is usually described as being dark and depressing, but which I found to be fascinating with interesting plants round every corner. The Sia itself was on the summit of a mountain at about 10,000 feet, and was largely covered by open grassland liberally dotted with tree ferns, and with large islands of trees and scrub, edged by a fine rhododendron growing up to 25 feet high, and forming about 25 per cent of the shrubby vegetation. Its elegant pink and white flowers were scented rather like a daphne, lying in trusses almost like clusters of loudspeakers (Pl. 9). I was overwhelmed by the beauty of this plant, and remember thinking at the time that if I had to choose between it and any man-made hybrid, I should take it without any hesitation. Its foliage was generous, and the plant was not unduly straggly. It was R. pleianthum. I dug up several seedlings growing in sphagnum about 8 inches deep, but found only one other rhododendron on the Sia. which I believe to be R. phaeochiton, with a brownish leaf and pink tubular flowers.

Shortly after this trip at the beginning of June, I decided that I had collected so many plants that I must fly home and see how they were faring. By introducing live plants I aimed at cutting out two possibly weak links in the chain of introduction, nongermination of seed and failure to raise plants to maturity. On arrival here they were planted outdoors in beds of bracken soil in three-quarters shade on the hillside, and were frequently sprayed. A few were potted up in a very loose bracken peat mixture and put in a cold house shaded by an acacia. Both lots have settled down well. So far there is little to comment upon, but the plants of R. macgregoriae outside have produced flowers and new growth

whereas those indoors appear to be more or less static, and R. konori has produced new growth inside but not out. R. herzogii is happy in both situations, even a plant which was put experimentally on a very hot dry bank. I intend to move the majority into a cold house with a minimum temperature of 45° F. this winter leaving a few from high altitudes outdoors in the shelter of a high wall. The essential factor in their cultivation must be good drainage with a fairly open root run, which in the case of the alpine species should be on the moist side. As the majority of epiphytes may be seen growing terrestrially, I see no point in treating them as epiphytes with all the paraphernalia of slatted boxes, etc. I will most probably be shot down for this remark; however we shall see. Seed germinates readily under the usual conditions. So far I have used plastic boxes and peat, but sphagnum may be an improvement. I feel that our varying hours of daylight will not affect them adversely, though doubtless they would benefit from extra lighting in winter, and would make quicker growth. However the obvious course to be taken at the moment is to find out which are hardy, and the varying temperature requirements of the remainder.

The results of the soil analyses are not yet available, but a preliminary examination of one indicated that the pH was 5.8.

I was fortunate in being able to see so much of this beautiful country and so many rhododendrons in such a short time, and I should like to record my gratitude for the great help given me by John Womersley and his staff in the Department of Botany in Lae. This trip was little more than a reconnaissance, and further expeditions will be most rewarding.

THE AMERICAN RHODODENDRON SOCIETY-ANNUAL MEETING AND GARDEN TOURS

By MILTON V. WALKER, M.D.

ANNUAL business meetings of any organization can be quite A a bore. Let us face it. Who would want to sit in a building and be obliged to listen to a treasurer's report and committee reports ad infinitum when one has perhaps travelled 3,000 miles and knows that outside that building is one of the most beautiful gardens in America?

This past year the business session of the Annual Meeting of the American Rhododendron Society was made as painless as possible by relegating the reports to such an inconspicuous spot in the three-day programme as to be almost lost in the entertainment planned for those attending the Annual Meeting. Planting Fields Arboretum at Oyster Bay, Long Island, New York, was the site of this meeting held in May of 1965.

Public relations experts to-day stress the importance of where such meetings are held. The writer doubts if any better place could have been found for the Annual Meeting than Planting Fields Arboretum. The meetings were hosted by the New York Chapter presided over by that very capable and energetic President Mr. Sydney Burns. The facilities at Planting Fields are excellent for such a meeting, and concentrated in this small area of New York State are many of the finest estates and homes in America. Garden tours, as the special form of entertainment provided, were very wisely chosen by the Committee.

Planting Fields Arboretum was originally the estate of the late William Robertson Coe, who generously left this 400-acre beauty spot on Long Island to the people of New York in 1949. There are 160 acres being permanently preserved and developed as an Arboretum; 200 acres are in fine woodlands and the balance is farmland. Situated about an hour's drive from New York City, it is easily accessible and the moderating effects of the adjacent Long Island Sound and Bay make it one of the most ideal spots for growing rhododendrons in the State of New York.

The feeling of spaciousness given by the broad expanses of beautifully kept lawns, creates a most favourable first impression of this Arboretum. For forty-five years Mr. Coe collected and planted outstanding trees and shrubs, and being particularly fond of lindens and beeches, he planted sizeable trees of many varieties in the early 1920's. Many of these are now mature and add greatly to the magnificence of this estate. The manor house, now Coe Hall, is considered by many to be one of the finest examples of Elizabethan architecture in the United States.

An unusual and interesting feature of the Arboretum is the Synoptic Garden now being developed by the Director, Mr. Gordon Jones. In this area are planted for study by home owners particularly, the superior species and varieties of especially desirable ornamentals. The shrubs in the Synoptic Garden are planted in alphabetical sequence to facilitate locating a given genus for study. Parts of the area are of course planted with other material such as turf, ground covers and flowering trees in pleasing land-scape arrangements. No attempt is being made to represent completely the genera of woody plants, and only the very best varieties are being selected for planting. The interest by the general public is said to be tremendous, and this novel and educational garden created a great deal of very favourable comment among those present at the meeting.

Adjacent to the Synoptic Garden, a rather large area is being cleared and made ready for a Rhododendron Species Collection that will complement the ornamentals of the Synoptic Garden. In this ideal situation of high shade, good drainage and with a beautiful background, will be grown a collection of the very best forms of the species that may be obtained anywhere in the world. The securing of these superior species and the selection of those most suitable for this climate will be done with the assistance of the Rhododendron Species Foundation, which is now getting together just such a collection through the generosity of many

British gardeners.

In this modern age when everything must be made easy, medicine palatable, and education painless, entertainment is an essential ingredient it seems for any successful meeting. The co-chairmen of the Annual Meeting, Gordon Jones and William Bowden, recognizing this, planned extensive Garden Tours as the special form of entertainment to be provided. What could have been more enjoyable for a group of Rhododendron buffs in the midst of some of the finest gardens in America? In chartered buses provided for

each of the three days of the meetings and also for two extra days of tours following the meetings, the gardens were visited in com-

fort and with wonderful companionship.

The garden of William R. Ĉoe Jr., eldest son of the late William Robertson Coe of Planting Fields, is one of the most beautiful of the many gardens visited. In complete contrast to Planting Fields, where superb lawns are a prominent feature, the recently developed garden of Mr. Coe has not one blade of grass. Maintenance has been kept at a minimum by the extensive use of ground covers and mass plantings. The lovely home on a wooded hillside overlooks a quiet river valley and is approached by a long curving driveway through oak woods underplanted thickly with ground covers as well as with azaleas and rhododendrons by the thousands.

The estate of Mr. Howard Phipps at Westbury is one of the few remaining properties in the United States that exemplify the traditional English garden of the past century. Mr. Phipps planted out the woodland areas and planned the geometrically placed alleys leading to the rise of land where he eventually built his stately home. For many years he has been hybridizing Dexter seedlings and some very fine new hybrids were in full bloom at the time of our visit.

A rather pleasant interlude was provided by a walk through the magnificent Pinetum at the Bayard Cutting Arboretum following the viewing of the fine old rhododendrons and azaleas planted many years ago near the Cutting mansion. The Pinetum is noted for its many magnificent and large specimens planted by Mr. Cutting. The Arboretum is a most unique area, for it is both a cultivated botanical garden, rich in trees, plants and shrubs that have been imported from all over the world, and also a wild life preserve, where the native woodlands and streams abound in typical flora and fauna indigenous to the Atlantic Coastal Plain.

Among other gardens visited was that of Mr. and Mrs. Jean Cattier, where landscaped vistas, extensive collections of Glenn Dale and Gable Azaleas and an enormous White Oak draped with a spectacular *Hydrangea petiolaris* were to be seen. In the garden of Mr. and Mrs. Eberstadt tall trees on a gently sloping terrain provided a perfect setting for specimen rhododendrons, mainly Dexter and Hargrove hybrids. One of the original Dexter Hybrid Test Gardens on Long Island is now owned by Mr. and Mrs. Hugo Schlaikjer and a visit to this garden was of great

interest. These thirty-year-old, "one-of-a-kind" hybrids by Mr.

Dexter are only now being fully appreciated.

Mr. and Mrs. Nathaniel Hess are growing one of the largest collections of hybrids in the East. Their garden is located on a peninsula of Long Island Sound, and because of the equable climate they are able to grow, much to our surprise, most of the hybrids that we thought could only be grown in the Pacific Northwest. The President of the Host Chapter, Mr. Sydney Burns, and his hard-working wife, who was in charge of transportation, found time to show us their well-landscaped garden and collection

of over four hundred species and hybrids.

The climax of five days of meetings and garden tours was the visit to the home and nursery of Mr. and Mrs. John F. Knippenberg of Wayne, New Jersey. Buses and private cars converged on this wonderful thirty-acre natural woodland on the last day of the tours, and those fortunate enough to be able to attend were royally received. A sumptuous buffet lunch was served to over two hundred guests and on leaving, the tradition was preserved of never allowing a guest to depart without a rhododendron as a gift. Mrs. Knippenberg could be called a real, honest-to-goodness, "plain dirt gardener", who works at her hobby of hybridizing and running a nursery. She is a very knowledgeable and likeable person, and everyone enjoyed both the hospitality she and her husband so generously provided, and also the informative tour of the garden and nursery where Mrs Knippenberg discussed the results of her hybridizing.

President Edward Dunn of the American Rhododendron Society handled the actual business meeting of the Annual Sessions with a finesse and dispatch seldom seen. His own brief remarks on the Society's activities were both interesting and to the point. Dr. Robert Tichnor gave only a résumé of his Treasurer's report, but did point out that we are losing ground financially. It was quite evident that with no raise in dues for the past eighteen years, either the dues would have to be raised or the membership vastly increased. The Executive Secretary, Dr. J. Harold Clarke, followed the example of the other officers and adequately covered the progress of the Society in a few well-chosen words. The highlight of the short business meeting was the presentation of Gold Medals to two very worthy and surprised recipients, Dr. Henry Skinner and Mr. David Leach. This pleasant duty was graciously performed by the Vice-President and Chairman of the Awards Committee, Dr. Carl Phetteplace.

Successful Annual Sessions should be balanced like properly planned meals with a bit of meat as well as enjoyable desserts. The fine garden tours served admirably as enjoyable desserts, but something more substantial was planned for the main course. Speeches are naturally a tradition and if the subjects and speakers are carefully chosen can be both interesting and thought-provoking. The choice of speakers by the Committee for the various sessions was indicative of the broadening interest of members of the American Rhododendron Society. Mr. James Russell of the Sunningdale Nurseries, Windlesham, Surrey, England; Mr. K. Wada of Yokohama, Japan, and the writer were asked to talk on subjects that reflected the catholic interests of the society.

Mr. James Russell as one of the principal speakers gave an address to the nearly 300 present for the business session, on the subject "A Hybridist's View of New British Varieties and Species Forms". Mr. Russell spoke from his vast experience in the nursery business and in the planning of many large estates both in Great Britain and on the Continent. Of great interest was the history of his famous nursery and the slides of some of the fine specimens still flourishing there. From these very early hybrids, Mr. Russell rapidly took us over the years, showing slides of hybrids as they were developed up to the present time. For the many people present who had not had an opportunity of seeing the fine forms of species and hybrids being grown in Great Britain, Mr. Russell's slides and comments were a real treat.

The Society was greatly honoured in having Mr. K. Wada of Japan interrupt his British visit to fly back to New York in order to address the Annual Meeting. Mr. Wada showed some beautiful slides of rhododendrons growing in Japan and discussed particularly *R. tashiroi* and its hybrids. His talk and slides were based upon an article published in the *A.R.S. Bulletin* of January 1965. It is to Mr. Wada we are indebted for being able to enjoy and grow many of the rhododendrons and azaleas native to Japan. For many who know this man only by reputation, it was a privilege to meet and be able to chat with him as we toured the many gardens.

The organization of a Rhododendron Species Foundation for the bringing together and preservation of all of the best forms of the species available, has caught the attention and stirred the imagination of many rhododendron enthusiasts in the United States and Canada. Most growers had not realized until recent years the paucity of good forms of the species in this country, and had not had the opportunity of seeing the many outstanding forms

being grown in British gardens.

The writer as President of the Rhododendron Species Foundation was invited to address the society on the first evening following dinner. A transcript of the talk entitled "The Genesis of the Rhododendron Species Foundation" has since been published in the A.R.S. Bulletin of July 1965. Tribute was paid to the many Britishers who very generously offered to share their fine forms and made the Foundation Species Collection a possibility. In particular, the assistance given by Sir Eric Savill, Dr. Harold Fletcher and Mr. Patrick Synge in helping with a two-and-a-halfmonth tour of British gardens during the spring of 1964 was noted. A carefully selected group of pictures taken during this visit were shown, particularly of new species and forms quite unknown in the United States. The slides showing the beauty which maturity brings to rhododendrons caused considerable comment and interest.

The organization of the Rhododendron Species Foundation was described after relating some of the events leading up to its formation. The very distinguished Founding Board of Directors was announced, and among the names on the Board are to be found those of one member of Council and one Vice-President of the Royal Horticultural Society—Sir Eric Savill, who was also named Honorary Vice-President, and Mr. Henry F. du Pont of Delaware, U.S.A. Also announced was an endowment goal of a million dollars that it is felt will be necessary to carry out the objectives of the Foundation. These were summarized as first, making available true forms of the species, both type and outstanding forms; second, preservation of these forms so that they will never be lost; and third, research and educational activities in the species Rhododendron.

A main Foundation garden is planned for the Pacific Northwest with subsidiary gardens or collections at and maintained by Arboreta and Botanic Gardens scattered over the United States and Canada. The writer was happy to report that at the close of the first year of operation, due to the wonderful generosity of twenty-five British gardeners, there were in the Foundation Species Collection 307 different species or forms listed.

I think that all those who attended the 1965 Annual Meeting of the American Rhododendron Society will agree that it was a great success. Credit is due to the careful planning of Sydney Burns, President of the New York Chapter, and to the co-chairmen, Gordon Jones and William Bowden of Planting Fields.

The site chosen for the meeting was superb. Not only were the facilities available excellent, but the meetings were held in an area where there is probably the greatest concentration of fine gardens and estates anywhere in the United States. The owners of many of these fine estates very graciously permitted the committee to arrange for visits and it was therefore possible to offer garden tours for five days as an added inducement for members to attend the Annual Meeting. No more enjoyable form of entertainment

could possibly have been chosen.

For many years the American Rhododendron Society was considered a West Coast organization, but during the past few years with chapters springing up every year all across the continent and especially along the East Coast, this society has changed radically in its outlook. There are now twenty chapters and over 2,500 members. No longer are the Directors chosen from the West Coast alone and no longer are annual meetings held only in Oregon or Washington. Reflecting the broadening interests of the members, for this recent meeting speakers were secured from Great Britain and from Japan to talk about rhododendrons being grown in these parts of the world. Also significant of a more discerning attitude among growers here, was the interest shown in the Rhododendron Species Foundation which is attempting to bring together and preserve the very best forms of the species and make them available to everyone.

RHODODENDRONS IN AUSTRALIA

The Linden Gardens, Mt. Dandenong

By A. W. HEADLAM

Tralia is in the Dandenong Ranges, which are some 25 miles from Melbourne and rise to about 2,000 feet above sea-level. They have an annual rainfall of 50 to 60 inches and the climate is generally very kind to rhododendrons, for although there are some light snow falls and frosts in the winter months, these are not severe enough to cause any appreciable damage. The most adverse weather conditions are encountered in the summer months when temperatures may reach 100 degrees and hot north winds and extremely dry conditions prevail. However, if some afternoon shade is provided and the root systems are heavily mulched with bracken, pine needles or fallen leaves, rhododendrons stand the

heat remarkably well.

Since my wife and I became interested in growing rhododendrons some ten years ago, we visit the Dandenongs at every available opportunity during the flowering season. No visit would be complete without a call at the Linden Gardens (owned by Mr. Michael Elliott) which are in a valley on a bend of the main road and are surrounded by native trees-Mountain Ash (Eucalyptus regnans) which grow tall and straight to 200 feet and over, and shed their bark each year, Black Wattle (Acacia decurrens) to 60 feet, which flowers in late spring, Blackwood (A. melanoxylon) a spreading tree to 40 feet with paler flowers, and once popular timber for furniture making, noted for its fiddleback grain, Victorian Christmas Bush (Prostanthera lasianthus) 12 to 15 feet high with white flowers in panicles from December onwards, and Clematis aristata, the native clematis, which with its white starry flowers festoons the forest undergrowth. Tree ferns (Dicksonia antarctica) grow profusely along the creek to a height of 25 feet with fronds up to 6 feet long-in the gardens are also numerous varieties of deciduous trees including ash, elm, oaks, maples and magnolias, which make a very colourful display in the autumn and provide some shade for the rhododendrons in the hotter summer



Photo: J. E. Downward

Fig. 41.—*Rhododendron calendulaceum* 'Burning Light', A.M. June 15, 1965. Exhibited by the Crown Estate Commissioners, The Great Park, Windsor (see p. 163)



Photo: K. Wada
FIG. 42.—A distinct form of Rhododendron metternichii in Japan (see p. 101)



Photo: G. Krüssmann

Fig. 43.—*Rhododendron ponticum* with double flowers in the park of Bad Brückenau, Bavaria (see p. 139)

months. A small stream winds through the nursery, and only in times of very severe drought has the water supply ever completely failed.

Space and time would not permit a description of the many rhododendrons grown by Mr. Elliott—there are about 600 varieties of hybrids and species—and it would be equally difficult to try and pick out the most outstanding ones.

Each has its own particular beauty and as spring progresses and more and more flowers emerge, the problem becomes increasingly difficult. I have endeavoured, however, to give a brief description of some of the varieties which accord the greatest appeal.

One of the earliest rhododendrons to flower is 'Cornubia'. A beautiful specimen of this variety is located just inside the front gate of the nursery—it is some 15 feet high and in mid-August presents a brilliant spectacle of blood-red flowers against a natural

background of gum trees and blackwoods.

Other early varieties which can be relied upon to make a good show are 'Marion', of which there are several plants, and 'Christmas Cheer', which flowers as early as June. Visitors are always welcome, and it would be difficult to imagine a more pleasant way of spending an hour or so on a sunny spring day than strolling around the Linden Gardens with Mr. Elliott. He has a wide knowledge of the different rhododendron species and hybrids and has selected only the highest quality of stock plants for his nursery. Mr. Elliott invariably seems to be able to find some interesting plant or flower which would otherwise undoubtedly pass unnoticed. It was on such a visit to the nursery this spring that I first saw R. tephropeplum in flower. The plant was about 30 inches high and the pale pink bell-shaped flowers with their rather prominent stamens made a very attractive sight. I lost no time in getting my camera and made several successful colour slides of this species.

After the first burst of early varieties there is a short breathing space before the later and more numerous ones commence

flowering.

'Gill's Triumph' starts flowering just as soon as 'Cornubia' has finished. It is a plant of extremely attractive habit with long dark green leaves. I think it would almost be worth while growing for the foliage alone, but as the bright red flowers open, it stands out as probably one of the most attractive in the nursery. Other members of the Gill family, 'Gill's Crimson' and 'Mrs. R. Gill' are also worthy of mention.

'May Day'. This is a very fine specimen and always attracts

attention. It can only be surpassed for sheer brilliance of red by perhaps 'Tally Ho', which flowers in late November. At the back of the house is a fine specimen of *R. griersonianum*, and the characteristics of the parentage of this species can be seen in many specimens in the garden; the geranium red tonings and the long narrow leaves are apparent in 'May Day', 'Tally Ho', 'Damozel', 'Elizabeth', 'Matador' and many other *griersonianum* crosses, 'Damozel' making a particularly striking show with its prolific display of deep rose-coloured flowers, which almost completely cover the plant.

There are a number of the yellow varieties, 'Goldsworth Yellow' and 'Goldsworth Orange' being probably among the best, and 'Fabia', another *griersonianum* cross, is quite unusual, with its

yellow bell-shaped flowers in a somewhat open truss.

On the hillside is a very fine specimen of 'Loderi Sir Joseph Hooker'. This plant is somewhat open in growth habit, and is covered with enormous trusses, pink in bud and opening to a pale

blush pink.

In the blues are 'Blue Peter', 'Blue Diamond' and some of the pale lavender blues, such as 'Lady Decies' and 'Mrs. Charles E. Pearson'. One of the most striking is *R. augustinii*, a tall-growing species which flowers in mid-season and makes a beautiful sight against the sky and the pale green tracery of leaves on the oaks and elms which are just beginning to grow.

Of considerable interest is R. williamsianum and its progeny with their small round leaves. 'Bow Bells'—rose pink, 'Temple Belle'—pale pink, 'Thomwilliams'—deep pink, and 'Humming Bird', this last looking very attractive with its light red flowers

and rather long pedicels.

Two other species worthy of mention are *R. fortunei*, which was covered with masses of fragrant rose-pink blooms, and *R. yakusi-manum* with its grey-green leaves and flowers which are pink in the bud and open to white. This is a very compact and dense-growing plant and the new growth presents a very unusual appearance, the tips of which are quite silver. With the very dense growth habit, the silver tips of the new growth show up like candles on a Christmas tree.

In the pinks, 'Betty Wormald' and 'Antoon van Welie' are quite outstanding, and two unusual pinks are 'Antonio' (a *discolor* × 'Gill's Triumph' cross), a large open-growing plant with very large soft pink flowers, and 'Lady Stuart of Wortley', an extremely prolific flowering deep pink.

It would be difficult not to mention 'Mrs. G. W. Leak', a very fine bicolor with pink flowers and a deep purple eye, and 'President Roosevelt' with its variegated leaves and very distinctive red flowers with a lighter centre. Many of the rhododendrons in the Linden Gardens are rarely seen growing elsewhere in the Dandenongs.

When visiting the nursery in early October, Camellia reticulata 'Captain Rawes' was at its peak. It is situated at the back of the house and was planted twenty-nine years ago by Mrs. Elliott. It is now some 12 to 15 feet high and the trunk at the base would be about 10 inches in circumference. It made a beautiful sight in the spring sunshine against the white wall of the house—the ground underneath was covered with spent blooms.

An attractive azaleodendron which always has a prolific display is 'Galloper Light'. The buds before opening are quite long, and are held in an erect manner. When fully opened, the plant is covered in masses of soft pink flowers, which are shaded yellow.

Reaching high amongst the blackwoods and wattles are some large plants of 'Sappho', which are very striking in this natural setting with their white trusses and chocolate markings. Native birds, Kookaburras, Bell Birds and at times Lyre Birds may be heard in the forest around the nursery, and Honeyeaters are a common sight gathering nectar from the flowers.

A description of the Linden Gardens would not be complete without a mention of the "Royal Enclosure", here, massed together in an area enclosed by a low fence are the Exbury deciduous azaleas. They have enormous florets and range in colour from white, soft pinks, yellow, orange, red, bronze, and last but not least, ginger. The colours really defy description, except perhaps for 'Ginger', which according to Mr. Elliott, is more ginger than the hair of the gingeriest lass you ever saw!

Soon after starting our rhododendron garden at home, I became interested in colour photography, and have a considerable collection of flower studies.

It is very pleasant on a cold winter's night to sit by the fire and project some of the slides of the Linden Gardens—it gives promise that whilst winter has us in its grasp, spring cannot be far away.

A FORM OF RHODODENDRON METTERNICHII AND ITS HYBRIDS

By K. WADA

MONG the rhododendron species wild in Japan the degronianum-makinoi-metternichii-yakusimanum group is notable in having waxy jewel-like flowers, pink to white, on the beautiful settings of thick, leathery, deep green leaves and also in making in favourable climates such as those of England and the Netherlands a beautiful dome-shaped bush well clad with the very attractive leaves from the base. The species belonging to this group are all well worth growing for the beautiful habit of growth alone. They are very similar to each other and some botanist has claimed they may be well considered as one and the same species. They seem to have such minor botanical distinctions, but to horticulturists this amalgamation would cause unnecessary confusion and they are better separated. The degronianum from the Nikko area is quite different horticulturally from the one in Niigata and Yamagata area. The two areas are relatively close, being about 20 miles apart at the closer points. The yakusimanum at lower elevations of Yakushima Island grows as tall as 20 feet high, bearing large leaves with a thin white indumentum beneath, but the yakusimanum at higher elevations has small, more rounded leaves with thick tawny brown indumentum and reaches only 2 to 3 feet high. The F.C.C. clone is of another geographical form from intermediate altitudes. Horticulturists cannot handle them as one and the same thing.

R. metternichii has a wider distribution than the other species of the group and occupies about half of the south of Japan. It is not too surprising that metternichii has more different geographical forms than the other species from the horticultural point of view. Botanists have made three separations among the species, namely, metternichii hondoense, metternichii tsukusianum and metternichii type, probably from differences of indumentum beneath the leaves. But they have invariably seven-lobed flowers opening at the same time as yakusimanum or a week earlier. These

botanical separations are of little importance to our horticul-turists.

During 1925 to 1936, I tried to collect native rhododendrons from every corner of Japan and find geographical forms tough enough to stand our lowland hot summer climates. The F.C.C. clone of yakusimanum was one of my finds. A geographical form most like yakusimanum but not described by botanists, which I tentatively named "metternianum", was a stimulus to the thorough searching and I thought there would be more desirable geographical forms. Among the plants gathered from all possible places in Japan I found a very outstanding form with large waxy jewel-like flowers, seven- to nine-lobed, in a good truss, opening three to four weeks earlier than the other metternichii. I named this form tentatively as metternichii aff. (Fig. 42) to separate it from the other metternichii which bloom much later in spring with poorer flowers. Since the war I tried to obtain more plants of this form but I have so far failed to discover any. Therefore this form is now a mysterious one to me and other Japanese rhododendron enthusiasts.

This metternichii aff. is as tough as fortunei and has more beautiful leaves with the very desirable habit of new leaves appearing six weeks after flowering, thus avoiding the ill effect of having flowers and new growth at the same time. Flowers of fortunei cannot stand weather, being withered by sun and stained by rain, but the thick-petalled flowers of metternichii aff. are quite weather-resistant. It has no mauvish tinge in its flowers and gives purer colours to its descendants. Still better, it blooms earlier in spring than Kurume azaleas and tells of the awakening of the spring more beautifully than any other shrub. I used this form extensively for breeding in place of fortunei to obtain hybrids that were more heat tolerant, with the additional merit of flowers of purer colours and of more

substance appearing earlier in the spring.

The results of crossing with this form have turned out quite satisfactorily, because I have now obtained hybrids of the English standard, blooming earlier than Kurume azaleas and thriving under our subtropical summer climates. I refrain from giving too much description of the hybrids because they are similar to the yakusimanum hybrids which are being raised in England and the U.S.A. The differences are that my hybrids have larger, seven-lobed and more widely open flowers earlier in the spring and are more heat tolerant. I feel sure that hybrids from this form may have more commercial value, being tougher in growth and able to withstand higher summer temperatures. People who cannot succeed

in growing rhododendron hybrids of European origin because of their hot summer climates may now be able to enjoy finest rhododendron flowers. Japanese gardens have no rhodendrons simply because they cannot survive under the hot summer climates of the lower areas. But my introductions of heat-tolerant hybrids will make a great change to this before too long.

A NEW RHODODENDRON R. SUCCOTHII

By H. H. DAVIDIAN, B.Sc.

Rhododendron succothii Davidian, sp. nov.

Species R. fulgenti Hook. f. affinis sed foliis infra glabris, subses-

silibus, in ramulis subverticillatim congestis.

Frutex 90 cm.-4.60 m. altus, cortice brunneo papyraceo tectus; ramuli glabri, sub inflorescentia 4-5 mm. diametro. Folia sempervirentia, subsessilia, subverticillatim congesta; lamina oblongo-obovata, obovata, oblongo-elliptica vel elliptica, 5·3-13·5 cm. longa, 2·6-6·4 cm. lata, apice rotundata vel late obtusa et mucronata, basi late obtusa vel rotundata, cordulata, auriculata, supra atroviridis nitens glabra, costa media sulcata, venis primariis 10-16 impressis, infra pallide viridis, glabra, costa media elevata glabra raro tomentosa; petiolus 2-5 mm. longus, glaber, supra planus sulcatus. Inflorescentia terminalis, compacta, rotundata, racemoso-umbellata, 10-15-flora; rhachis 1-1.5 cm. longa, tomentosa vel glabra; pedicelli 0·4-1·3 cm. longi, glabri. Calyx 5-lobatus, minutus, 1 mm. longus, lobis rotundatis vel ovatis glabris. Corolla tubuloso-campanulata, carnosa, 2·3-3·5 cm. longa, chermesina vel miniata, basi leviter 5-saccata; lobis 5, 0·8-1·4 cm. longis, 1·3-2 cm. latis, rotundatis, emarginatis. Stamina 10, inaequalia, 1·1-2·7 cm. longa; filamenta glabra. Gynoecium 1·8-2·8 cm. longum; ovarium conoideum, 4-5 mm. longum, 7-10-loculare, glabrum; stylus glaber. Capsula anguste cylindrica vel oblonga, paulo curvata vel recta, 0.7-2.3 cm. longa, 4-6 mm. lata, glabra, calice persistente.

BHUTAN. Yate La Ridge, Tongsa. Bush 10 feet, under abies forest;

altitude 12,000 feet. 2.7.1915. R. E. Cooper No. 4101.

BHUTAN. Byasu La. Phobshikha. Central Bhutan. Altitude 13,500 feet. 18.5.1937. F. Ludlow & G. Sherriff No. 3075 (Holotype in Herb. Hort, Bot, Edin.).

BHUTAN. Ha Dzong. Calyx minute, green; corolla red; filaments white; anthers black; gynoecium white. Shrub 3-6 feet. On edge of moorland. 30.4.1949. Altitude 12,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 16101.

BHUTAN. Valley above Barshong. Thimbu Chu. Calyx purplish green; corolla wine red; filaments white; anthers black; ovary green; style white; stigma black. Shrub 4–5 feet. 25.5.1949. Altitude 13,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 16351.

BHUTAN. Rudo La (E. side). Shrub 5-10 feet. Corolla crimson with dark nectar pouches. Filaments and style white, centres black. Very common at this altitude, in rhododendron and fir forest. 18.5.1949. Altitude 11,000-12,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 18893.

BHUTAN. Rudo La. Shrub 8 feet. In rhododendron and fir forest. Flowers crimson; anthers brown; filaments white, shading to pink at base; style yellowish green. 15.4.1949. Altitude 12,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 20107.

BHUTAN. Donga La. Shrub 10-15 feet. Corolla crimson; nectaries maroon; calyx green edged with crimson; filaments pink; anthers brown; style pink; ovary green. No scent. ? same as 20184, except that there is no indumentum on leaves. 24.4.1949. Altitude 12,500 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 20186.

BHUTAN. Shingbe, Me La. N.E. Bhutan. Shrub 10–12 feet. Flowers crimson. Growing in abies and rhododendron forest. Cross reference No. 20186. 16.5.1949. Altitude 11,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 20643.

BHUTAN. Donga La (E. side). Identifying specimen for seed of rhododendron. Shrub 4–6 feet high. Habitat rhododendron forest. 10.10.1949. Altitude 12,000 feet. F. Ludlow, G. Sherriff & J. H. Hicks No. 21295.

ASSAM. Poshing La. A small gnarled tree with smooth peeling tawny bark like *R. euchaites*, or a large shrub. Height 12–20 feet; leaves narrow, oval, glabrous; flowers and inflorescence glabrous. Corolla narrow bell-shaped, glowing scarlet, small in compact trusses. Androecium and gynoecium glabrous. More or less gregarious and in mixed rhododendron scrub and forest undergrowth, especially with *R. fulgens*, *R. wightii* and *R. lanatum*. I have never seen this species before, and at a distance mistook it first for *R. hookeri*, then for *R. fulgens*. It lacks the large calyx and characteristic hair tufts of the former, the indumentum of the latter. Altitude 11,000–13,000 feet. 19.5.1938. F. Kingdon-Ward No. 13666.

R. succothii (Pl. 8) was discovered by R. E. Cooper on the Yate La Ridge, Tongsa in Bhutan, in 1915. Subsequently it was found by Ludlow, Sherriff and Hicks in other localities in Bhutan, and by Kingdon-Ward in Assam. It grows in abies, rhododendron and fir forests, and at the margins of moorland at elevations of 11,000–13,500 feet.

The species has long been in cultivation under the name R. fulgens aff. It is similar to R. fulgens of the Campanulatum series in the smooth flaking bark and in the compact inflorescence, but differs markedly in that the leaves are glabrous beneath, subsessile, and are clustered in whorls on the branchlets. In some respects it resembles the species of the Thomsonii subseries, from

all of which it is readily distinguished by the compact inflorescence.

R. succothii is so distinctive that it does not fit well into any known series. It is tentatively placed in the Campanulatum series until the revision of the series is completed.

The plant was introduced into cultivation by Kingdon-Ward and by Ludlow, Sherriff and Hicks. It is hardy in a sheltered position, and is well worth a place in every collection of rhododendrons.

The species is named after Sir George I. Campbell of Succoth, Bt., in recognition of his outstanding contributions to the cultivation of rhododendrons.

A shrub, 90 cm.-4.60 m. high with smooth brown flaking bark; branchlets glabrous, those below the inflorescences 4-5 mm. in diameter. Leaves evergreen, subsessile, clustered in whorls on the branchlets; lamina oblong-obovate, obovate, oblong-elliptic or elliptic, 5·3–13·5 cm. long, 2.6-6.4 cm. broad, apex rounded or broadly obtuse, mucronate, base broadly obtuse or rounded, cordulate, auricled; upper surface dark green, glossy, glabrous, midrib grooved, primary veins 10-16 on each side impressed; under-surface pale green, glabrous, midrib raised, glabrous or rarely hairy; petiole 2-5 mm. long, glabrous, flat above, grooved. Inflorescence terminal, a compact rounded racemose-umbel of 10-15 flowers; rachis 1-1.5 cm. long, hairy or glabrous; pedicels 0.4-1.3 cm. long, glabrous. Calyx 5-lobed, minute, 1 mm. long, lobes rounded or ovate, glabrous. Corolla tubular-campanulate, fleshy, 2-3-3.5 cm. long, crimson or scarlet, 5-pouched at the base; lobes 5, 0.8-1.4 cm. long, 1.3-2 cm. broad, rounded, emarginate. Stamens 10, unequal, 1·1-2·7 cm. long; filaments glabrous. Gynoecium 1·8-2·8 cm. long; ovary conoid, 4-5 mm. long, 7-10-celled, glabrous; style glabrous. Capsule slender cylindric or oblong, slightly curved or straight, 0.7-2.3 cm. long, 4-6 mm. broad, glabrous, calyx persistent.

THE RHODODENDRON SHOW

May 4 and 5, 1965

By ALAN HARDY and PATRICK M. SYNGE

THE weather of the early months of 1965 did not prove kindly to many rhododendron growers, particularly those in the west of England and Scotland. Severe frosts and some snow during March and April destroyed many trusses of bloom and left others incomplete. Nevertheless, although perhaps not one of our vintage rhododendron shows, the display filled the New Hall with colour and interest while among the classes were, as always, a few outstanding exhibits, probably better than any we had seen previously for these particular plants. It is for these that rhododendron shows are particularly remembered.

This year among the species perhaps the highlight was a most magnificent spray of *R. schlippenbachii* from Sir Giles Loder, which was awarded an F.C.C. as well as the first prize in its class. This clone has appropriately been named 'Prince Charming'. The floating butterflies, that make up the flowers of this lovely deciduous azalea, seemed rounder and fuller and of a clearer and deeper pink than any we had seen before. Some of the sprays of *R. albrechtii* were also unusually fine, especially those from Bodnant and Nymans, a deep rich cerise in colour. Both of these are absolutely hardy species, flowering when quite small and with good regularity and so should be much more widely grown in English gardens.

A spray of R. lacteum with eight tight trusses of a good deep yellow was shown by Wing-Commander Ingall of Corsock in south-west Scotland for first prize in Class 5, and seldom have we seen such a lavish display of this species, so often regarded as difficult, coy and hard to please. Evidently it was well pleased in this garden. Among the hybrids an enormous spray of 'White Wings' was shown on the dais by Sir Giles Loder. This is surely one of the finest additions to our tender rhododendrons and was raised by the late Mr. Scrase-Dickens from edgeworthii (bullatum) × cilicalyx. Its large white flowers with pale yellow markings at the base seem to combine the best of both species and are of perfect form, while it is also one of the most lovely of the scented rhododendrons. Sir Giles's spray had eighteen trusses gently arching

over from the bough. There are few more beautiful plants for the cold or cool greenhouse since the foliage is also good, and one year we hope it will be awarded its F.C.C. In the classes for the *Maddenii* series we also had some very fine trusses from the Crown Estate Commissioners, whose new greenhouse in the Savill Garden grows such plants to perfection. Among these were *nuttallii*, *lindleyi*, a lovely truss with eight flowers which deservedly won first prize in its class No. 21, and *dalhousiae*, a nice waxy flower with more creaminess in its flower as compared to the snowy-white *lindleyi*. Lord Aberconway's 'Tyermannii' always seems to flower at the correct season for this Show, and a spray with four trusses each with four immense white lily-like flowers was superb as the first-prize winner for Class 82 for tender hybrids.

Quite different but equally outstanding was General Eric Harrison's deep violet-blue 'Saint Tudy' which promises to be a really valuable addition to the range of plants in this colour. The only other violet to rival it in the Show was the New Zealand raised

'Ilam Violet' on Messrs. Slocock's stand.

Messrs, W. C. Slocock Ltd. won the Rothschild Challenge Cup for the best non-competitive group of rhododendrons and azaleas as well as a Gold Medal. It was a brilliant exhibit for colour and the quality of cultivation of many of the plants was very high. The bright colours were nicely balanced between the strong flames and pinks of the deciduous azaleas and the slightly harder pinks and reds of some of the evergreen azaleas such as 'Hinomayo' and 'Eddie'. Particularly interesting in the exhibit were some of the dwarf blood-red rhododendrons raised by Herr Dietrich Hobbie in Germany from crosses of forrestii var. repens. These promise to be useful garden plants, but are described more fully by Mr. Slocock in a separate article. Some had, however, grown up rather loosely and taller than expected and so perhaps they should be grown in full exposure. The pale creamy hybrids raised from a cross between 'China' and 'Crest', sister seedlings of the plant which won the Loder Challenge Cup in Class 65, were also notable and promise to be useful additions to the yellow hardy rhododendrons although none had the deep colour of 'Crest'. Good yellow is still perhaps the least common colour among hardy hybrids.

John Waterer Sons and Crisp Ltd. were also awarded a Gold Medal for a group staged under the clock in which the evergreen azaleas had been placed in the front and the larger deciduous azaleas and rhododendrons towards the centre and back. In general this was a brilliant display of colour although it lacked

height towards the back. There was a particularly richly coloured form of the dwarf violet-blue *R. russatum* towards the front among the evergreen azaleas. Others that made notable plants in the group were 'Loderi Helen', 'Matador' and 'Mrs. G. W. Leak', one of the most striking of the hardy hybrids because of the contrast of its deep blotch and markings.

Messrs. Hillier and Sons were awarded a Silver-Gilt Lindley Medal for a group of high botanical interest, since 40 out of the 44 series in general cultivation were represented and these included nearly 200 species and sub-species, a large number being shown for their foliage characters. The large-leaved species were represented by macabeanum and calophytum. We noticed a rather unusual form of aberconwayi with a pink flush on the corolla, also very attractive pubescens and spiciferum, two species which appeared almost indistinguishable from a short distance away.

The Knap Hill Nursery won a Silver Flora Medal for a brilliantly coloured and well-grown group of hardy rhododendrons and deciduous azaleas. Among the rhododendrons 'Goldball' with its good trusses of pale creamy-yellow flowers should be more widely grown since it makes such a good contrast to the more brilliant tones. Here it mixed well with 'Blue Peter', more mauve than blue but attractive in the strong contrast between blotch and remainder of corolla.

The series of deciduous azaleas named after birds are all lovely and soft in colour, and in this group we noticed 'Avocet', white and pink, 'Chaffinch', yellow flushed salmon-pink, and 'Buzzard', pale yellow flushed deeper red.

Another Silver Flora Medal went to Messrs. G. Reuthe, who had a very varied group. There were tall plants of a rather pale augustinii, a well-flowered plant of 'Elizabeth' and the large leaves of eximium and basilicum.

The Hydon Nurseries were awarded a Silver Banksian Medal for a good little group, which included several unusual plants. To the centre were seedlings of the delightful pink azalea 'Cote' raised at Tower Court. Another fine plant from the same garden was 'Rocket' (strigillosum × meddianum) which was notable for its scarlet bud cases as well as its strong red flowers. The white form of the dwarf carolinianum with some ochreous yellow on the lip of the corolla and also the whitish R. minus are plants which are rarely seen but which seemed attractive for the small garden. A magnificent plant of the dwarf mauve 'Sapphire' was another feature of this exhibit. An old favourite in the form of a well-

shaped plant of 'Pink Pearl' with the flowers only just opening was doubtless improved in the evening by the electric light and seemed

there by no means outclassed.

From Brodick Castle Gardens the National Trust for Scotland sent a most interesting collection of species, which included many tender ones rarely seen, and a Silver Lindley Medal was awarded to the Trust. Particularly fine was a vase of sidereum, with bright rather narrow leaves and a full truss of creamy-yellow flowers. In the centre was a big vase of the pale johnstoneanum, one of the finest of the cream-coloured Maddenii and here contrasting vividly with the deep blood-red delavayi, one of the best plants in this colour for those who have mild enough conditions for it. Last year we saw also the yellow luteiflorum variety of glaucophyllum, and this year it was well shown again beside a vase of a more typical pink form of the species. Two interesting plants rarely seen and with small modest flowers were pendulum, an epiphyte, very hairy in its foliage and stem and with small white flowers, and genestierianum, which has a mealy bloom on the outside of its little plumcoloured corollas. Perhaps more exciting for the gardener were a good yellow burmanicum, lindleyi with up to five flowers to a truss although perhaps a form with flowers smaller than is sometimes seen. Still they were most likely to have been picked from the open rather than from under glass. There was a lovely pure white edgeworthii shown as bullatum, taggianum and the rare supranubium, a Maddenii of the Cilicalyx subseries. Its white flowers were flushed with pale green towards the base and on the outside. The large-leaved species were well represented at one end by giganteum, mollyanum, sinogrande, basilicum and macabeanum though few were in flower.

COMPETITIVE CLASSES: SPECIES

Again there were few outstanding examples of the larger-leaved species, and the finest plants were mostly in the *Azalea* and *Lacteum* series as already mentioned.

Class I for eight species is always one of the most exacting as well as interesting of the classes. This year the Lionel de Rothschild Challenge Cup as first prize was won by Lord Aberconway and the National Trust from Bodnant who showed morii, cinnamomeum, arboreum f. roseum, rex, haematodes, argyrophyllum, vernicosum and wightii. Considering the difficulties of the season at Bodnant this was a very nice collection (Fig. 44). The rex was a particularly

good truss, while the vernicosum and the morii were both unusually fine examples of these species. Mr. S. F. Christie of Blackhill in north-east Scotland won second prize for a group which included his beautiful deep yellow form of lacteum, a finely coloured truss of habrotrichum and a rather unusual roxieanum var. oreonastes. The Taliense series was strongly represented in the Show, and the value of its members is now becoming recognized after many years of growth with only disappointing flower. In the third-prize group from the Crown Estate Commissioners we noticed a lovely rude, a member of the Barbatum series with very bristly young shoots and pinkish purple flowers marked with darker crimson markings. There were also good rex and a well-coloured form of wallichii. In Mr. de Rothschild's fourth-prize group from Exbury his plant described as dryophyllum aff. was a gem, its small leaves being covered with a rusty-red indumentum below, although their resemblance to oak leaves, as given in the derivation of the name, is not very apparent. This plant belongs to the Lacteum series. He also had a good form of niveum. Tender species were shown from Brodick by the National Trust for Scotland, and included lindlevi and pendulum. On the basis of the species shown, however, it would seem that Sir Joseph Hooker in his Illustrations of Himalavan Rhododendrons flattered this plant or perhaps he found a finer form. Nearly all the prizes for Classes 2, 3 and 4 for three species and one species respectively went north of the border with the exception of a second prize in Class 2 for Lea Rhododendron Gardens, who showed fictolacteum, thomsonii and the Knap Hill form of campanulatum, probably still the best "blue" form of this species. The first prize in this class was awarded to Wing-Cdr. Ingall for lacteum, phaeochrysum and thomsonii. His phaeochrysum was particularly fine, a full rounded truss of white flowers heavily speckled inside. He also won the McLaren Challenge Cup in Class 4 with this species as he did last year. Sir George Campbell and Ilay Campbell included a good fictolacteum in their trio in Class 2. In Class 3, where they won first prize, they also had very fine delavayi and detonsum. Other exceptions to the Scottish prize list were Major E. W. M. Magor's second-prize group in Class 3, which included hodgsonii, prattii and argyrophyllum, and a nice set from Lea Rhododendron Gardens including campanulatum var. superbum, gymnocarpum and euchaites.

Class 4 for one truss of any species attracted twenty entries, two more than last year but still not quite up to the record for this class, which is one of the most popular in the Show. Apart from Wing-Cdr. Ingall's *phaeochrysum*, which won the cup as already noted, the *sidereum* from Brodick Castle shown by the National Trust for Scotland was very nice. Its creamy-yellow flowers were in superb condition and the foliage was fine and silvery underneath. An imposing truss of *sinogrande* won third prize also for the National Trust for Scotland. Highly Commended in this class were Wing-Cdr. Ingall's *adenophorum*, a very pretty silvery pink, and Major A. Hardy's *pseudochrysanthemum*, a slightly darker pink with lovely campanulate flowers but lightening in colour as it opened. This is a plant which certainly should be grown more since it is absolutely hardy.

Class 5 for a spray or branch of any species was also one of the best classes in the Show, and the fine spray with eight trusses of lacteum (Fig. 45) from Wing-Cdr. Ingall was deservedly first. Lord Aberconway's schlippenbachii was a very good form and won second prize, the third going to Mr. de Rothschild for pseudochrysanthemum. We also noted in this class a very heavily spotted and free-flowering lanatum from Lord Aberconway and an unusual fictolacteum from the Crown Estate Commissioners which had deep pink tips to the corollas and was also heavily spotted outside as well as inside. Its deep rusty-red indumentum

below the leaves was also striking.

Among the next two classes for *Arboreum* series, Sir Giles Loder's *cinnamomeum* had a nice red truss and won first place in Class 6 and scored over the deeper reds, while Sir George and Ilay Campbell's *delavayi* which won first prize in Class 7 was a good example of this brilliant flower. In Class 8 for *Barbatum* series it was surprising to see no scarlet reds in the prize list. The first prize went to the Countess of Rosse and the National Trust for an outstanding pink *crinigerum*, and second to Sir Giles Loder's *habrotrichum*, the third to Sir Ralph Clarke's *crinigerum* var. *euadenium*, while the fourth was the Countess of Rosse's white *morii* from Nymans.

Class 9 for the *Boothii* series had both more entries and more variation than usual. The first prize went to Mr. E. de Rothschild's *tephropeplum*, the second to Sir Giles Loder's *auritum*, a pale creamy-yellow with pink tips to the petals and somewhat tubular-shaped corolla. A deeper yellow and unusually rich in colour for the species was Sir Ralph Clarke's *sulfureum* which won third prize.

In the Campanulatum class we particularly noted a very good form of wallichii from the Hydon Nurseries. Sir George Campbell's cinnabarinum roylei, which won first prize in its class, was a

magnificent spray. In Class 13 for fictolacteum or rex all the prize winners were rex. Mr. R. Strauss was first with a very largeflowered form of a very pale blush lilac with a fine dark blotch. Sir Ralph Clarke's coriaceum (first prize) and Mr. E. de Rothschild's basilicum (second prize) were both very good specimens for Class 14 for the Falconeri series other than those specified in the two preceding classes. R. griffithianum has a purity of white in its flowers and a beauty in its form hardly surpassed by any other species when it is well grown, but this can only be done in the milder counties. Mr. L. S. Fortescue's form, which won first prize, was excellent and had just a little green at the base which contrasted with the pink colouring of Mr. W. F. Carpenter's secondprize exhibit. R. vernicosum won all the prizes in Class 16 for other members of the Fortunei series, Wing-Cdr. Ingall's being first. In Class 18, for Grande series, we noted a good deep-coloured macabeanum from the Countess of Rosse at Nymans. The Irroratums showed a striking colour contrast, the first two prizes going to aberconwayi, Sir Giles Loder's in first place being unusually large, and the pillar-box red venator shown by Sir Ralph Clarke for third prize.

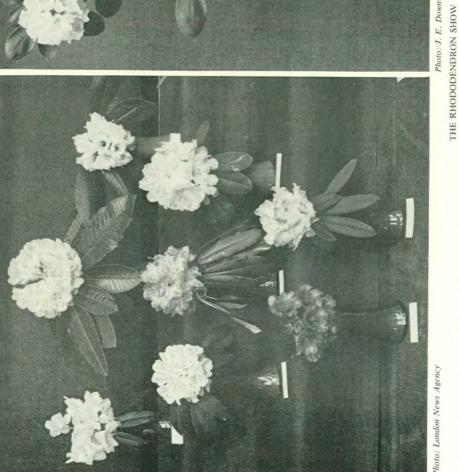
The Lacteum series class, No. 20, had some notable exhibits. Mr. S. F. Christie's lacteum was perhaps the deepest in colour in the Show and won first prize, the second going to Mr. de Rothschild's plant shown as dryophyllum aff. It was interesting to note that Mr. Christie's lacteum had no blotch, while Wing-Cdr. Ingall's in third place had a conspicuous deep crimson blotch at

the base.

The Megacalyx subseries in Class 21 were beautiful as ever, the Crown Estate Commissioners winning all three prizes, the first with lindleyi, a magnificent specimen with eight flowers to the truss, the second with the vast flowers of nuttallii and the third with dalhousiae, which showed lovely waxy flowers with rather compact and slightly ribbed corollas. These need not be grown outside.

The other *Maddeniis* gave us a good varied class in No. 22. Mrs. Douglas Gordon's *burmanicum* was very nice for first prize, as were also Mr. E. de Rothschild's *johnstoneanum* in second place and the Countess of Rosse's *parryae* in third place. These tender rhododendrons are most rewarding where the space can be found for them under glass or where, as in some parts of the West, they can be grown satisfactorily outside.

In Class 25 for the Sanguineum or Forrestii subseries we noted



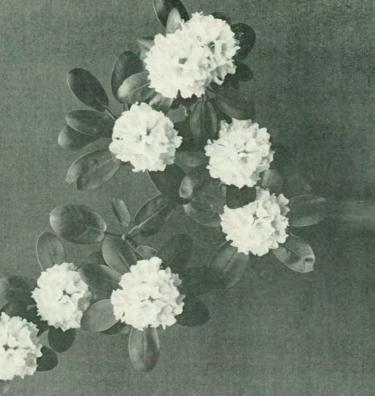


Photo: J. E. Downward

Fig. 44.—The entry of Lord Aberconway and the National Trust, Bodnant, in Class 1 of the Rhododendron Show, which was awarded the first prize and the Lionel de Rothschild Challenge Cup (see p. 109)

Fig. 45.—Rhododendron lacteum with eight trusses shown by Wing-Commander Ingall in Class 5 and awarded the first prize (see p. 111)

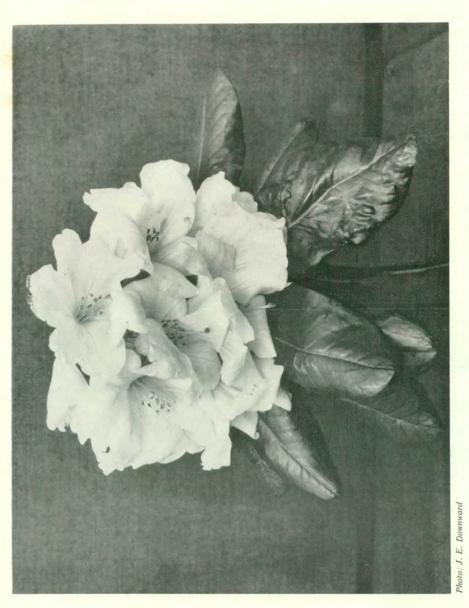


Fig. 46.—Rhododendron 'China' × R. 'Crest' which was awarded the Loder Challenge Cup in Class 65 of the Rhododendron Show when entered by the Crown Estate Commissioners, The Great Park, Windsor (see p. 115)

as the first-prize winner an unusually good dark red sanguineum sub-sp. haemaleum shown by the Crown Estate Commissioners. Both the classes for the Ponticum and the Taliense series produced interesting flowers and these series seem deserving of more repute and attention in the garden. In the Ponticum class were some of the purest whites in the Show, the first prize going to a lovely specimen of hyperythrum from Capt. Collingwood Ingram. Usually this species tends to curl its leaves overmuch, but this was not particularly apparent in this exhibit. The fourth prize also was given for this species, while the second and third went to Sir Ralph Clarke and Mr. C. A. Judson respectively for metternichii. In the Taliense series, which is really now beginning after many years to come into its own proper place at Shows, Wing-Cdr. Ingall won first prize for a fine roxieanum and also second and third places for adenophorum and sphaeroblastum respectively. This was no mean achievement, while the fourth prize also went to Scotland for Sir George and Mr. Ilay Campbell's detonsum. In Class 29 Major A. Hardy's myiagrum was of interest since it is a species not often seen. It is close to R. callimorphum, but the pedicels are said to be sticky, hence its name of fly-catcher.

Sir Giles Loder's schlippenbachii in Class 34 has already been mentioned and the other prize exhibits from Lord Aberconway and Mr. E. de Rothschild were both good for colour. For other members of the Azalea series there was a good entry and the first prize went to a beautiful deep pink albrechtii from Nymans shown by the Countess of Rosse and the National Trust. The second prize was given for a large-flowered form of reticulatum from Messrs. Waterer and the third to the white quinquefolium from Sir Giles Loder. Lord Aberconway won the class for three members of this series with a very good deep pink albrechtii and good reticulatum and schlippenbachii. In Class 39 for sprays of the Edgeworthii series there was a very fine specimen of edgeworthii from the Crown Estate Commissioners with five trusses making a very compact spray. This was the form with a good deal of pink outside.

The majority of the smaller lepidote series were rather disappointing in their entries, perhaps being already over in many gardens, but we noticed a very nice deep yellow form of *chryseum* from the Crown Estate Commissioners which won first prize in Class 42 for the *Lapponicum* series, and an unusually deep coloured *hippophaeoides* in excellent condition from the Lea Rhododendron Gardens as second-prize winner in the same class. Other notable plants among the prize winners of the species classes included

Major A. Hardy's racemosum, which had very deep pink tips to the flowers, a beautiful pink spiciferum from Sir Giles Loder, an unusually good form of trichocladum from Lord Aberconway, a good deep-coloured spray of oreotrephes from Sir Giles Loder in Class 49 and a most beautiful pink davidsonianum also from Sir Giles in Class 52. This has now become the most popular member of the Yunnanense series, at any rate for show. Lord Aberconway's rigidum in the same class was also of interest.

HYBRIDS

There are thirty classes for hybrids as opposed to fifty-four for species, but nevertheless they filled their side of the hall and presented a very colourful display. Class 61 requires eight hybrids and was won by Mr. E. de Rothschild, who showed 'Chanticleer', 'Lamellen', 'Mariloo', 'Queen of Hearts', 'Lionel's Triumph', 'Naomi', 'Fortune' and 'Luscombei'. The 'Lamellen' was a particularly good truss of this very desirable cross between campanulatum and griffithianum, while the 'Fortune' was a nice deep yellow although not so large a truss as the one which originally won the F.C.C., or so it seems in retrospect. The second prize went to the Crown Estate Commissioners, who showed a very promising pale vellow cross between 'Loderi Julie' and 'Crest'. The flower was large but the colour not so deep as in 'Crest'. General Harrison in his third-prize group had a fine deep yellow example of 'Crest' and also included two old favourites in 'Susan' and 'Beauty of Littleworth'. Class 62 for three hybrids had sixteen entries and was won by Mr. R. Strauss of Stonehurst. Among his flowers was a very good truss of the very dark red 'Queen of Hearts' and also a nice specimen of the clear yellow 'Memoria Kate Bagg'. 'Richard Gill' × orbiculare in the third-prize group from Windsor Great Park was particularly interesting, since it was different from the usual orbiculare colouring and should form a useful addition to our hybrids. For second place the Misses Godman showed from South Lodge 'Naomi', 'White Glory' and 'Luscombei', all in excellent condition. Major Magor of Lamellen was fourth with 'Gilian', and an unnamed hybrid of detonsum and fortunei. Sir George Campbell's 'Gina' was a very good deep red and had pride of place in his first-prize group for Class 63 where the entry is restricted to those not winning a prize in the previous two classes for the last five years. Mr. C. F. Wray of Warlingham was second with a nice bullatum hybrid, 'Crest' and 'Earl of Athlone'.

The Class 64, for sprays of hybrids, had some beautiful and really impressive entries, and Mr. de Rothschild won first prize with 'Tasco', 'Luscombei' and 'Carita'. We have hardly ever seen before such a fine spray of 'Luscombei', and this old hybrid certainly holds its place for effectiveness both in the garden and on the Show bench. In the second-prize group Lord Aberconway showed a very fine truss of 'Gretia', one of the best of the Bodnant strong clear reds. It is a cross of griersonianum and 'Portia' which in its turn is euchaites × strigillosum and an F.C.C. plant.

The Loder Challenge Cup for a single truss of a hybrid in Class 65 was awarded to the Crown Estate Commissioners for 'China' × 'Crest', which had a tall truss with large and well-shaped flowers of creamy-yellow and promises to be a fine addition to our paler yellow hardy hybrids (Fig. 46). This plant also won the Cup last year. We still need more deep yellow ones. Second was Mr. E. de Rothschild with a fine truss of 'Fortune' and third the Crown Estate Commissioners with 'Damaris' × 'Hawk', also a promising cross though with a smaller truss than their first-prize exhibit.

Class 66 requires trusses of six hybrids raised by or in the garden of the exhibitor, an exacting class which few can enter. Mr. E. de Rothschild's group of Exbury-raised hybrids won first prize, the Crosfield Challenge Cup, and he showed 'Prelude', 'Tasco', 'Queen of Hearts', 'Lionel's Triumph', 'Naomi' and 'Fortune Montreal'. Of these noticeable were 'Tasco' with good red flowers, opening rather wide, and 'Lionel's Triumph', one of the very few good *lacteum* hybrids. Also in this class were very fine trusses of 'Coreta' from Lord Aberconway and of 'White Glory' and 'Queen Wilhelmina' × thomsonii from Sir Giles Loder,

For Class 67 three sprays must be shown of rhododendrons raised in the garden of the exhibitor, and there were some very fine vases. Mr. E. de Rothschild was first with 'Chanticleer', a compact-flowered dark red, 'Eleanore' and 'Fortune Montreal', a good clear sulphur yellow. In the second-prize group the Crown Estate Commissioners had an interesting cross between hyperythrum and yakusimanum and also an interesting aberconwayi hybrid. Lord Aberconway's houlstonii × 'Penjerrick' was white with a greenish eye and a nice plant although it is doubtful whether any of the children of 'Penjerrick' have yet surpassed their parent for form and general merit.

Some of the hardy hybrids shown in Class 68 always stand up as well as any of the flowers in the Show, especially when seen on the second day. The Misses Godman, who won first prize, showed

excellent 'Susan' and 'Mrs. G. W. Leak', both of which were introduced over thirty years ago. Messrs. Slocock's creamy-white 'New Moon' also seemed a desirable plant. Among the arboreum hybrids Sir Giles Loder's 'Guardsman', which won first prize, was a good deep compact red and was a cross between arboreum and 'Ivery's Scarlet'. His 'Loderi Pearly Queen', a cross between two previous Loderi, was also outstanding and won in preference to two of the original Loderi crosses from Windsor, 'Loderi Pink Diamond' and 'Loderi Pink Topaz'. Undoubtedly some slight improvement can still be made by continued crossing of the Loderis within themselves. Mr. de Rothschild's 'Cornish Cross', the winner of Class 71, was one of the best specimens of this cultivar we had ever seen while his 'Yvonne', the winner of the next class, was also a very good one. In Class 73 the creamy form of 'Penjerrick' from Mr. de Rothschild won over Lord Aberconway's pink form and other factors being equal this is probably likely to happen on most occasions, so lovely a flower is it.

For other fortunei hybrids both the first- and second-prize winners had calophytum as one parent. Wing-Cdr. Ingall's 'Calfort Kobus' had white flowers with a deep blotch as in calophytum and also its long narrow foliage. 'Calrose' from Lord Aberconway, as befitted a griersonianum hybrid, was deep pink in colour and was silvery on the underside of the leaf. His haematodes × 'Matador', the prize winner of Class 76, had a very thick waxy texture and clear deep red colouring. Sir Giles Loder's 'Red Glow', the prize winner of the thomsonii hybrids, had a very tall and full deep pink truss and is obviously one meriting wider distribution. In Class 78 for hybrids of other members of the thomsonii subseries Mr. L. S. Fortescue's form of 'Hawk', which was a good clear yellow, won over 'Crest' even though it was not such a large flower, and

so this promises to be a useful addition to the range.

Class 82 for hybrids from the Maddenii or Edgeworthii series

Class 82 for hybrids from the *Maddenii* or *Edgeworthii* series produced some very fine exhibits. At the beginning we wrote about Lord Aberconway's 'Tyermannii' which won first prize, and Sir Giles Loder's 'White Wings', although a smaller spray, was shown here to come within the 24 inches in height required by the schedule. The third prize also went to Sir Giles for a beautiful spray of the pale yellow *edgeworthii* (bullatum) × 'Parisienne'.

The next class takes us almost to the opposite extreme of rhododendron type and is for hybrids between a *Triflorum* and a *Lapponicum*, but here again there was an outstanding plant in Maj.-Gen. Harrison's 'Saint Tudy', which was much deeper in colour

than the 'Blue Tits' and 'Bluebirds' shown and the 'Blue Diamonds' in other groups. It was a very brilliant violet-purple with reddish-purple stamens and the spray was so thick with flowers that hardly any green showed. General Harrison also showed an interesting hybrid between *detonsum* and 'Sincerity' to win first prize in Class 88. It was deep pink and made a tall spray.

In the classes for specimen plants there were some beautiful dwarf rhododendrons suitable for the rock garden. The first prize was won by a large plant from the Crown Estate Commissioners, Windsor, of the red form of *calostrotum*, which must have won closely over Waterer's 'Sapphire', a magnificent plant 2 feet 2

inches by 2 feet.

In the class for evergreen rhododendrons in bloom the plants were even larger, the 'Hinomayo' from Windsor measuring

6 feet × 6 feet × 3 feet high, truly an enormous plant.

One point that was noticeable in many classes was the absence of labels in many more instances than seems usual and this undoubtedly detracts from the interest and usefulness of the exhibit as well as diminishing its chances of getting a prize.

THE RHODODENDRON COMPETITION

March 30 and 31, 1965

By ALAN HARDY and JAMES PLATT

THE number of entries to be expected in the Rhododendron Competition is often doubtful even until shortly before the Competition. Such was the case in 1965 when in many parts of the country there had been long cold spells. However a few days of mild weather put things in order and, if there were slightly fewer entries than in 1964, there were plenty of trusses to be seen, almost all in good condition, but there was not a wide variety.

Mr. R. Strauss of Ardingly was first in Class 1 for one truss each of four species, with a perfect truss of R. calophytum, a neat R. smithii, an R. eclecteum with large pink bells much marked on the outside and a R. pocophorum which was of an attractive red. The Crown Estate Commissioners, the Great Park, Windsor, were second with a really nice truss of R. praestans, R. sutchuenense, R. arboreum and an excellent R. barbatum. Sir Ralph Clarke, Borde Hill, Sussex, who took third prize had good trusses of a lovely R. sutchuenense, R. barbatum, R. oreodoxa and a clear pink which though labelled R. sinogrande, was considered to be R. mollyanum. Of the six entries in Class 2 for a spray of any species, Sir Ralph's superlative R. barbatum was justifiably first, the second prize going to Mr. R. Strauss, with R. calophytum. The Crown Estate Commissioners were third with a R. fulvum which was a deeper colour than most and having a noticeable blotch. Their pleasing pink R. arboreum was Highly Commended. Sir Giles Loder's tight truss of a good pink R. arboreum from Leonardslee took the first prize in Class 3 for one of any species, and the Crown Estate Commissioners' R. barbatum was second. This was a fine truss with brick-red flowers of the bristleless form. Sir Ralph Clarke, who was third, had entered another R. barbatum with smaller flowers in a tighter truss. In Class 4 for one truss each of three cultivars of R. arboreum, Sir Giles Loder was first with a white-flowered form with very prominent stamens, a rich pink and a white flushed pink with more open flowers in a looser truss. The Crown Estate Commissioners who were the only other entrants in

this class won the second prize with their pinks which ran from very pale to a deep shade. Of the four entrants in Class 5 for any species of the *Arboreum* series other than *R. arboreum*, Sir Ralph Clarke was given a second prize and Mr. W. F. Carpenter of Fairy House, Warlingham, a third for *R. ririei* with violet-purple flowers. There were eleven entries for a species of the *Barbatum* series in Class 6. The bristleless *R. barbatum* from Windsor and Mr. R. Strauss's neat *R. smithii* won the first and second prizes, while Sir Giles

Loder's R. barbatum, again without bristles, was third.

In Class 7 for the Dauricum series, the Crown Estate Commissioners were first with the only entry which was R. mucronulatum 'Cornell Pink' with rose-pink flowers which must be very effective on a large plant. Class 8 was for the Falconeri series and Major E. W. M. Magor, Lamellen, St. Tudy, Cornwall, won a second prize for an unusual R. arizelum with very thick muddy-looking indumentum and rather glaucous upper surfaces to the leaves. The flowers were creamy-white with a small blotch and were barely open. There were ten entries in Class 9 for the Fortunei series. The first prize went to Sir Giles Loder's clear pink R. erubescens, an uncommon species with an attractive well-shaped truss, Sir Ralph Clarke and the Crown Estate Commissioners were second and third with two very similar R. sutchuenense with large, well-shaped trusses of good colour. They were in excellent condition too. It was perhaps a little early for Class 10 for the Grande series. Sir Giles Loder was first with a very deep pink R. grande and a truss of a good white R. coryphaeum from Windsor was placed second. It had a good deep blotch which showed through. Major Magor of Lamellen entered a R. macabeanum with large, well-shaped flowers which were perhaps a little light in colour, and won the third prize. In Class 11 for the Neriiflorum series a truss of R. pocophorum with serrated and wavy margins to the corolla lobes won the first prize for Mr. R. Strauss. It was a very fine flower and only just a little better than Major Magor's R. mallotum which was of a wonderful red for this species with as fine a rusty-brown indumentum as could be desired. The Misses E. and E. Godman of South Lodge, Horsham, were third with the bright red R. beanianum. There was an attractive R. hemidartum from Windsor in this class. In Class 12 for the Thomsonii series all the prizes went to R. eclecteum. Mr. R. Strauss was first with a lovely pink, Mr. W. F. Carpenter second with a yellow and Sir Giles Loder third with a pink form which had long, narrow, pale pink bells. A form from Windsor under the collector's number Rock 59109 was Highly Commended. Even for so

variable a species the longer, narrower and less rounded leaves were unusual.

In Class 13 which provides for a spray from the Boothii, Campylogynum, Glaucophyllum, Lapponicum, Moupinense, Saluenense, Scabrifolium, Triflorum or Virgatum series, R. sulfureum with deep yellow flowers won the first prize for Sir Ralph Clarke. Sir Giles Loder's well-flowered spray of R. racemosum was second. The third prize went to R. lutescens from Borde Hill. Class 14 was for a species not provided for above and was won by the fine R. fulvum from Windsor. R. vellereum is not often seen at Vincent Square and Sir Ralph Clarke was second with a form having very pale pink flowers and spongy, grey indumentum. Major-General and Mrs. E. G. W. W. Harrison, Tremeer, St. Tudy, Cornwall, were third with an attractive R. fulvum in which the blotched flowers were very pale pink, contrasting strongly with the deeper violet-pink of the buds in the centre. There was also in the class, but unplaced, a spray of the difficult and seldom seen R. sherriffii with rich deepcarmine flowers.

There were some good trusses in Class 15 which was for four hybrids. The Crown Estate Commissioners were first with the rich pink R. 'Lady Linlithgow', a well-shaped R. 'Shilsoni', R. 'Maroze' which appeared to be a typical R. meddianum hybrid, which it is, and 'Nausicaa', a delightful R. calophytum hybrid which makes a very handsome big plant. Major Magor who was second had a truss of the strong pink 'Callirhoe' and Maj.-Gen. and Mrs. Harrison, who were third, a good 'Red Admiral'. In Class 16 for a spray of any hybrid Sir Giles Loder's 'Edmundii' well deserved the first prize though competing with such good plants as R. 'Seagull' which won the second prize in Class 17 for a truss of any hybrid for Sir Giles. The Hydon Nurseries, Godalming, Surrey, were first in this class with the deep waxy red 'Rocket'. Sir Giles Loder was first and second in Class 18 for any hybrid of which one parent is a species of the Arboreum or Fortunei series with R. 'Edmundii' and R. 'Seagull'. Sir Ralph Clarke' was third with a nice truss of R. 'Choremia'. Major Magor's R. 'Walter Magor' (R. neriiflorum X R. 'Iphigenia') was first in Class 20 for any hybrid of which one parent is a species of the Barbatum or Thomsonii series. This was a fine red with a double calyx and a well-shaped leaf. A pink R. 'Jason' took the second prize for Maj.-Gen. and Mrs. Harrison, and Sir Giles Loder's R. 'Haze' which is a hybrid of R. hodgsonii and a soft mauve-pink in colour, was third. For a lepidote hybrid in Class 21 the Crown Estate Commissioners were given the first prize for

a superlative spray of R. 'Seta', showing this charming earlyflowering rhododendron at its best. They were also second with R. 'Silkcap' (R. leucaspis \times R. 'Cilpinense') with large white, flat saucer-shaped flowers. Mr. R. Strauss took the third prize with a good R. 'Cilpinense'. Classes 22 and 23 for any tender species or hybrid seldom fail to produce interesting and attractive flowers and the Hydon Nurseries' R. cubittii in Class 22 fulfilled our expectations. With its five large well-proportioned bells and strong scent this truss well deserved to be first. A good R. burmanicum (second) and a scented R. inaequale (third) from Windsor added to the interest. Class 23 was for a spray and the Crown Estate Commissioners were first with 'Ashcombe', their fine F.C.C. clone of R. cubittii. It has a much deeper yellow eye than the species. They also won the second prize with R. wilsonae of the Stamineum series. In the writer's opinion this species with its delicate pale mauve, brown-blotched flowers with a strong scent of azalea (R. luteum), cannot have been seen in the Hall for many years. There are no references to it over the last decade in the Year Book and it appears it was last shown in 1934 by the late Lord Aberconway. It is a charming plant. Sir Ralph Clarke was third with R. 'Countess of Sefton', a splendid cool-greenhouse plant. The final class in the Competition was for a rhododendron plant. A big plant of a lovely 'Cilpinense' from Windsor won the first prize while the Hydon Nurseries were second with another plant of the same hybrid. An exceptionally compact plant of R. keiskei from Windsor was placed third. It was entirely covered with half-open greenishvellow buds.

Amongst the Trade Exhibits the Hydon Nurseries had a table of medium-sized rhododendrons in which R. 'Tessa Roza' and a rather white R. 'Cilpinense' stood out. Messrs. Waterer, Sons and Crisp had some good R. 'Cilpinense' and $R \times praecox$ in a mixed exhibit. Mr. Rawinsky had R. 'Elizabeth', R. 'Spring Day' and a good clone of R. Elizabeth Hobbie, amongst other plants.

THE SCOTTISH RHODODENDRON SHOW April 13 and 14, 1965

By HAROLD R. FLETCHER, V.M.H.

AS is usual in Scotland, at the Rhododendron Show held on April 13-14, 1965, in the McLellan Galleries, Glasgow, in association with the Scottish Rock Garden Club, species greatly outnumbered the hybrids. This is hardly surprising in view of the fact that there were twenty-one classes for species and only six for hybrids (there were also two classes for species or hybrids—a class for foliage and one for a decorative bowl or vase). At Vincent Square in 1965 there were thirty classes for hybrids and fifty-four classes for species (not including the miscellaneous classes). But, even had the number of hybrid classes in Glasgow been greater, it is doubtful if, at this time of year, or for that matter at any other time of year, they would have attracted many meritorious entries. It is a rather strange thing that rhododendron growers in Scotland in large measure have been content to concentrate on growing their species, or such natural hybrids as have masqueraded, and indeed are masquerading, under the name of species, or chance hybrids which have cropped up in their own gardens. With one or two notable exceptions, in Scotland there has been very little of the deliberately planned hybridization which took place twenty to thirty years ago at Exbury, Bodnant, Lamellen, and is being continued at Windsor and elsewhere. Thus it is that, as usual, the hybrid classes in Scotland in 1965 were rather poorly represented. Of course there were magnificent trusses in some of these classes; but too often the trusses could have been passed off as forms of variable species; at least this is the opinion of some of us. Certain it is that the plant, of which one magnificent truss won honour in a hybrid class, in previous years has figured and gained first prizes in the species classes.

As has now become customary, both in Scotland and in London, the National Trust for Scotland exhibited, non-competitively, species and hybrids from Brodick Castle Gardens. This exhibit clearly showed that this garden has the climate, the interest and the knowledge to grow as wide a representation of the genus, especially of

the more tender species, as any garden in Britain. For instance, the best specimens I know of R. magnificum and giganteum (the latter more tender than the former, and both flowering in February and March and thus too early for this Show) are at Brodick; and the only good plants of R. genestierianum I have ever seen (either under glass or in the open) are at Brodick. A few days before the Show I had seen plants of this species in Cornwall with leaves at most a couple of inches long and looking rather miserable. Here it was at the Show, from Brodick, in flower, but, more important, with leaves 7 inches long and 2 inches broad and marvellously white below; there is a lot of it at Brodick, grown not for flower, but for the sake of its attractive young foliage which is pinkish green. Another equally tender plant grown in the open at Brodick is R. sulfureum; normally the sulphur-yellow flowers are borne in trusses of six to nine. In this instance, however, due to 10° F. of air frost on the nights of March 2 and 3, the trusses were only four- to five-flowered with two to three small blackened buds in each truss. In fact a better specimen of this species, carrying eight flowers to the truss, was shown by Lord Stair in Class 13.

Two much better garden plants, yellow-flowered and perfectly hardy, were in the Brodick exhibit—and magnificent they both were. R. glaucophyllum var. luteiflorum was only collected by Kingdon Ward in The Triangle, North Burma, in 1953 (K.W. 21556), yet already it has received the A.M. (1960) and one day surely will receive further recognition; in fact it was submitted for the F.C.C. in Glasgow-but unsuccessfully. The specimens in the Brodick exhibit were most beautiful, clear yellow open bellshaped flowers, delicately touched with palest green at the base, up to 1½ inches in diameter and nine to the truss, being produced in great abundance. This was by no means the only specimen of this plant in the Show; Class 16—one spray representative of the Glaucophyllum series—produced six entries: a rather poor R. charitopes and five splendid R. glaucophyllum var. luteiflorum. At Benmore (16/4/65) two days after the Show, it was easily the finest rhododendron in flower.

The other remarkable yellow-flowered plant in the Brodick exhibit was R. lutescens. In fact there were two different forms of this species. The inferior one was certainly good, with flowers of a fine colour and up to $1\frac{3}{4}$ inches in diameter. If fault there was, it was that the stamens were rather too conspicuous. The other was quite outstanding with flowers from 2 to $2\frac{1}{2}$ inches in diameter, of

rich deep yellow, with slight greenish-brown spotting (much less brown than in the other) and in clusters of six. It was unfortunate that the F.C.C. form of the species was not available for comparison, because it was the unanimous opinion of those familiar with this form that the Brodick plant is much superior. However, memory is far too fallible. Certain it is that sometimes the F.C.C. form has much disappointed me, whereas I could not imagine anything finer than the Brodick plant as it was shown on April 13.

The big-leaved and big-trussed species from Brodick were rather disappointing (it was also thus in the competitive classes). R. mollyanum, of which there are several very different forms at Brodick, all of them good, was represented by a couple of rather faded blooms—even by mid-April this species has almost finished flowering in Arran. Likewise was the truss of R. arizelum much past its best—a pale dirty pink—though the foliage was very good. R. macabeanum was represented by a truss from one of the original plants of Kingdon Ward origin; Brodick did not get the best of the coloured forms from Kingdon Ward's seeds—most are very pale compared to others in Scotland and to the magnificent forms at Trewithen and Trengwainton. However, a seedling from an original K.W. plant at Brodick, to judge from the truss submitted for comparison, is much better, being several shades deeper in colour; much better, too, than the chance hybrid between R. macabeanum and R. magnificum which, in flower, shows almost entirely the influence of the former and, in leaf, almost entirely the influence of the latter. Much more distinctive is a chance hybrid of R. coriaceum. This seedling, which is over 20 feet high and 11 feet across, has fine foliage—10 to 11 inches long and up to 3 inches broad, with the veins slightly sunken above and with the lower surface covered with a pale cream indumentum—and large compact trusses of up to thirty flowers. The flowers are of the palest pink, deeply blotched at the base with maroon—and very heavily spotted with the same colour; the spotting, in fact, reminded me of that of R. irroratum 'Polka Dot', which of course is not to everybody's liking. And the spotting of this coriaceum hybrid was not to the liking of those who refused to consider it for the A.M. Personally it greatly appealed to me, and certainly it is a considerable breakaway from R. coriaceum. There was no question of what was called (and passed by the Steward) a R. meddianum hybrid, not appealing to anyone; it was unanimously awarded the A.M., and I personally believe it merited the F.C.C. Unfortunately nothing is known of the history of this plant at Brodick and no one has any idea as to what the other parent may be. The plant is of good bushy habit, 12 feet high and 9 feet across with typical thomsonii bark, the foliage excellent and the flower trusses quite magnificent. The best plant I know (and others share my opinion) of R. meddianum var. atrokermesinum (better than the type) is in Mr. J. W. H. B. Younger's garden at Eckford in Argyll. Trusses of this fine plant were at the Show and thus could be judged beside those of the Brodick plant. The latter has more flowers to the truss—fifteen as against twelve at the most on the Eckford plant and these are openly funnel-campanulate (31 inches wide) with the lobes slightly reflexing and thus less tubular than those of the other. There is little to choose in the texture of the flowers and the colour of the Brodick flowers seems rather richer than the Eckford ones. There was no doubt in the mind of anyone who compared the two that the Brodick hybrid is a finer thing than the best forms of R. meddianum. Well did it deserve the award of the Cup for the best hybrid truss in the Show. It has been named 'Machrie'.

It could be argued that Mrs. Kenneth's truss of R. niveum hardly merited the award of the Cup for the best truss of a species (I seem to remember that this species, from another exhibitor, was awarded the Cup for the best species at the Scottish Rhododendron Show in 1960). Hers was certainly a magnificent smokyblue truss of a species which some people like and others hate, 5 inches across and the same in depth; other trusses shown were at most 4 inches in diameter and depth. But Mrs. Kenneth and R. niveum had strong competition from her son, Mr. A. G. Kenneth, and a wonderful blood-red-flowered R. arboreum-a truss 5 inches deep and 6 inches across (is not the first half of April early for flowers of this form of R. arboreum?); and especially from Mr. S. F. Christie of Morayshire and several trusses of R. lacteum. Trusses from Mr. Christie's plants of R. lacteum are well known at Shows in Scotland and at Vincent Square; very compact, they are composed of up to twenty-five Primrose Yellow (H.C.C. 601/2), unblotched, unspotted flowers, each 2 inches long and up to $2\frac{1}{2}$ inches wide. On April 13 one truss was the finest of three fine trusses (hodgsonii and basilicum were the others) which won for Mr. Christie the first prize in Class 1 (three trusses of three species); another truss won for Mr. Christie the first prize in Class 2 (one truss of a species); another Christie truss won the first prize in Class 18 (a truss of an elepidote series not included in previous classes); still another truss from the same source was

unanimously recommended for the award of the F.C.C.*; all were close on 7 inches in diameter and in depth, closely packed with flowers 2 inches long and a little more than that in width, quite flawless and of surpassing beauty; personally I would have voted any one of them the best truss of a species at the Show. R. lacteum's companions in Mr. Christie's prize-winning exhibit in Class 1 were R. hodgsonii and R. basilicum; the former was quite typical, with a compact truss of tubular-campanulate dark magentapurple flowers, to my eye much superior to the truss of flowers, white shaded in varying degrees with Rhodamine Purple (H.C.C. 29/2) which recently gained the A.M. under the name of 'Poet's Lawn', whilst the truss of R. basilicum was large and compact, the individual flowers being creamy-white and deeply blotched with maroon and, in the very young stage, faintly touched with pink. In this Class 1 there was a beautiful eighteen-flowered truss of R. hookeri (with fine foliage 6 inches long and 3 inches broad). as well as a pink arboreum truss 6 inches deep and 5 inches across -both exhibited by Mrs. Kenneth. The only other truss of note in this class was one of the deep crimson-flowered R. arizelum var. rubicosum from Lord Stair: otherwise the exhibits here were rather below standard; R. eximium, R. sutchuenense and var. geraldii were rather poor and R. fulvum surprisingly very poor—surprisingly because there were so many excellent forms of this species flowering at this time in the Royal Botanic Garden, Edinburgh. There were also several good specimens of R. uvarifolium in flower at Edinburgh. Yet the only one at the Show, I think, was the one (F. 10639) exhibited from the Edinburgh Botanic Garden which was unanimously awarded the A.M.—good leaves 9 inches long and nearly 3 inches wide with a whitish plastered indumentum below, and a compact truss 6 inches wide and 5 inches high of twenty-six funnel-campanulate flowers, each 2 inches long and 21 inches wide, Rose Pink (H.C.C. 427/3) spotted and blotched with Indian Lake (H.C.C. 826/3). 'Yangtze Bend' is the name.

On the other hand it was interesting to see certain species which are not even in cultivation in Edinburgh and which are in fact apparently very little grown. Two such were shown by Sir George and Mr. I. Campbell, in Class 18 (any elepidote series not included in Classes 1–17), R. ramsdenianum and R. pankimense. Both are of the Irroratum series and both are Kingdon Ward plants; the former he collected in the Tsangpo Gorge of south-east Tibet in 1924 and the latter in the Pankim La, Assam, in 1935. The former is the

^{*} R. lacteum 'Blackhills'

more striking plant with more flowers to the truss, the individual flowers being slightly larger, more tubular and rather a richer crimson in colour. Although the flowers of the plants found by Ward of *R. ramsdenianum* sometimes had a dark crimson blotch, they were unspotted; on the other hand the flowers exhibited by Sir George Campbell and his son were very heavily spotted. The Campbell plant was grown from seeds of K.W. 6284. From this same source the Gibson family at Glenarn, Rhu, grow plants whose flowers are quite unspotted. Thus from the one seed collection there are at least two quite distinct forms in cultivation. *R. ramsdenianum* and *pankimense* took second and third places respectively in Class 18; *R. lacteum* was an easy first-prize winner.

I do not think R. martinianum is a very common plant in cultivation. It was discovered by Forrest in N.W. Yunnan in 1914 and plants were first raised at Caerhays. Mrs. Kenneth exhibited a fine spray with many pale rose flowers which the judges rated equal second to Mrs. Kenneth's splendid spray of R. hookeri in Class 10. The first prize in this class was very deservedly won by an incredibly beautiful spray of R. hirtipes shown by the Gibson family. This fine plant was grown from seeds of L. S. & T. 3624 collected in 1938 in south-east Tibet. The funnel-shaped flowers are in a loose truss, three to five in number, are $1\frac{1}{2}$ inches long and $2\frac{1}{2}$ inches wide and coloured Phlox Pink (H.C.C. 625/3) stained and faintly striped with Phlox Pink (H.C.C. 625/1). This was certainly the most beautiful R. hirtipes any of us had seen. It was unanimously

awarded the A.M., and has been named 'Ita'.

Likewise was a form of R. campanulatum sent to the Show from the Royal Botanic Garden, Edinburgh. Unfortunately there is no record of the origin of this very remarkable and beautiful plant. Growing in the Woodland Garden, it is some 9 to 10 feet high and as much through, and the oblong-elliptic leaves are thickly covered below with a brilliant cinnamon-brown, felted indumentum. The truss is fairly loose and contains up to thirteen flowers 1½ inches long, 2 inches wide, funnel-campanulate with the five lobes rather spreading, in colour Phlox Purple (H.C.C. 632/3) spotted with Pansy Purple (H.C.C. 928). Apart from the colour, the remarkable thing about the flowers is their waxy texture, and the cultivar name 'Waxen Bell' is an appropriate one for this striking plant. Beside it were shown specimens of R. campanulatum 'Roland Cooper' which gained the A.M. last year. It was hard to believe that both are forms of one species. As they grow in the Royal Botanic Garden, Edinburgh, it is easy to see that

they are both outstanding garden plants. 'Waxen Bell' was easily the best representative of the *Campanulatum* series in the Show. The other forms of *R. campanulatum* were not very impressive and both *lanatum* and *tsariense* were rather poor. In Class 7 (one truss, *Campanulatum* series), Lord Stair's *R. fulgens* was an easy winner.

Other disappointments in the Show were the absence of entries for trusses of R. sinogrande (there was only one truss in the whole of the Show—from Brodick); the rather indifferent trusses of R. thomsonii; the almost complete absence of the Triflorum series (apart from the Brodick exhibit)—only a very poor R. lutescens and a spray of R. concinnum which took but a third prize; few entries for Class 14 (one truss, Maddenii series)—a five-flowered truss of R. lindleyi, R. ciliatum and R. valentinianum, taking first, second and third prizes respectively; only two poor entries of R. pemakoense in the Uniflorum series class; hardly any Azaleas—it was clearly too early.

There was one class for foliage—foliage of three rhododendrons was required—and the judges, quite correctly I think, voted as

follows:

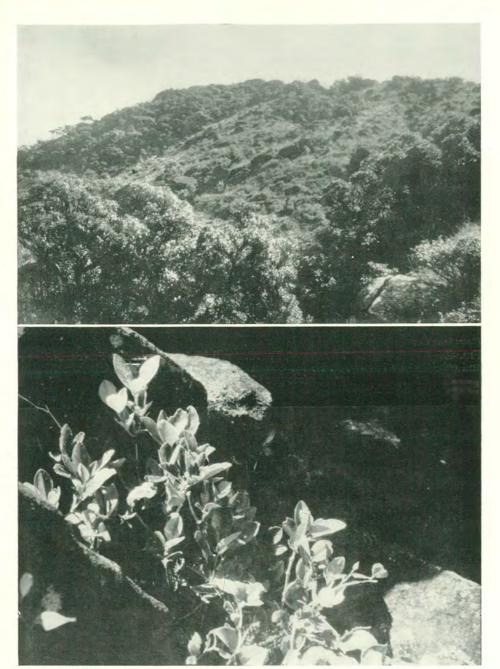
(1) falconeri, macabeanum, calophytum (Mr. Christie)

(2) sinogrande, arizelum, basilicum (Mrs. Kenneth)

(3) fulvum, bureavii, arizelum (Sir G. and Mr. I. Campbell)

The calophytum foliage was especially spectacular, for the leaves, between 15 and 16 inches long and between 2½ and 3 inches broad and pointing upwards at an angle of about 45 degrees, were so closely grouped at the apex of the shoot that they formed a circular group of twelve, like twelve spokes of a wheel. When such foliage stands with fine falconeri and macabeanum foliage, any judge must rate it higher than foliage of, say, fulvum, bureavii, arizelum, lanatum, insigne and many others-fine though these may be and enjoyed by so many more people than the others. To encourage more and better entries of foliage at our Shows, I suggest that there be at least two foliage classes; one for foliage over 10 inches long, say, and one for foliage up to 10 inches long. Moreover, as the best foliage is usually not seen on the same stem as a fine truss of flowers, I suggest that there also be a class for a flower truss and, in a separate vase, a foliage truss, of any species. By so doing more and better foliage would be seen at our Shows.

As the Scottish Rhododendron Show was run in conjunction with the Scottish Rock Garden Club Show, it was almost inevitable



Photos: B. Menelaus

Fig. 47.—Mount Bartle Frere in North Queensland, one of the homes of *Rhododendron lochae* (see p. 132)

Fig. 48.—*Rhododendron lochae* growing in a deep crack between boulders on Mount Bartle Frere (see p. 132)

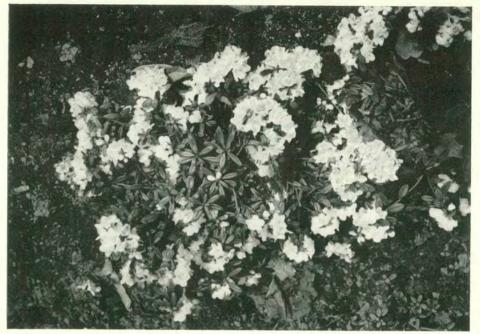


Photo: Peter Cox

Fig. 49.—Rhododendron 'Ptarmigan', F.C.C. April 13, 1965. Raised by Peter Cox, Esq., and exhibited by Messrs. E. H. M. Cox and P. A. Cox, Glendoick, Glencarse, Perth (see pp. 129 and 162)



Photo: M. Black

Fig. 50.—Rhododendrons thought to be natural hybrids of *R. macgregoriae* and *R. lepthanthum* with white, purple and pink flowers collected by Mr. Michael Black at Sirunke, New Guinea (see p. 83)

that there be a class in the Rhododendron Show for species suitable for the Rock Garden. There were a number of dwarf species flowering on the Edinburgh Rock Garden at the time and yet this class attracted only three worthwhile entries; R. fletcherianum, in very good condition, from E. H. M. and P. A. Cox, a fine form of R. virgatum with deep clear pink flowers reminding one of the colour of the best form of R. davidsonianum, from the Gibson family, and an equally good form of R. racemosum from Sir George and Mr. Ilay Campbell. It can be argued, I suppose, that, though these three species can be grown on the Rock Garden and in fact are grown on the Rock Garden, they are better grown elsewhere. But no one can argue that the plant exhibited by the Coxes under the name of 'Ptarmigan' is not suitable for the Rock Garden (though it would be equally suitable for the Peat Garden) nor that it is anything but an outstanding plant. It is a hybrid between R. leucaspis and microleucum and the latter is the pollen parent. For once one must dissociate the Coxes; 'Ptarmigan' was raised by P. A. Cox, who is very interested in dwarf rhododendrons and sees great possibilities in the hybridization of these plants. 'Ptarmigan', which filled a very big pan, is a compact spreading low-growing plant no more than 6 inches in height (Fig. 49). The leaves are at most 1 inch long, whilst the flowers are produced in great abundance, in clusters of several trusses, each truss being up to threeflowered. The flowers are broadly funnel-shaped, white, \frac{1}{2} inch long and 1 inch broad, and the protruding stamens are very decorative. On the day of the Show R. leucaspis had finished flowering and R. microleucum was still in tight bud in the Royal Botanic Garden, Edinburgh. Plants do not flower with the Coxes earlier than in Edinburgh. Thus 'Ptarmigan' will flower later than R. leucaspis, and thus will be in less danger of having the flowers frosted, and earlier than R. microleucum, which no doubt will also help to make the flowers of the hybrid less susceptible to frost. 'Ptarmigan' was awarded the F.C.C. and should prove a most valuable addition to the Rock and Peat Gardens. Certainly it was one of the best, if not the best, deliberately made hybrids (as opposed to chance hybrid seedlings) in the Show.

Other such hybrids to the fore were 'Boddaertianum', 'Princess Alice', 'Rosy Bell', 'Shilsonii', 'Cornubia', 'Sir Charles Lemon'— all raised before 1900, and 'Lady Linlithgow', 'May Morn', 'Betty King', 'Avalanche', 'Abbot', 'Pimpernel', 'Valaspis', 'Orestes'—all raised during the last fifty years. Many of these previously have won recognition; 'Princess Alice' and 'Avalanche' the F.C.C., and

'May Morn', 'Rosy Bell', 'Valaspis', 'Cornubia', 'Shilsonii' the A.M. The Exbury-raised 'Abbot' seems to me to be just as fine a plant as the last two, yet those members of the Rhododendron and Camellia Committee who were adjudicating on Awards in Glasgow did not recommend it as shown by the Brodick Garden, for the A.M. It was seen beside its two parents, both from Brodick; the tender delavavi (which received the F.C.C. nearly thirty years ago) and thomsonii (which has received neither the A.M. nor the F.C.C., but the Award of Garden Merit). All three plants grow well, in the open, at Brodick, and 'Abbot' is somewhat intermediate between the two; the leaves show very little of the influence of delayayi, whereas the flowers are much more like those of this species than those of thomsonii; there were up to fourteen flowers to the truss on 'Abbot' and thus more than in the best thomsonii truss and less than in a typical delavayi truss. Of course the plant is much hardier than delavavi and flowers over a very long period -often for four months at Brodick. It seems to me to be an extremely desirable plant. It cannot be very far removed from 'Red Admiral' (arboreum × thomsonii) which I saw at Caerhays a week before the Scottish Show looking absolutely magnificent. It has not received the A.M. nor the F.C.C. either!

These apart, the rest of the hybrids were in the main chance seedlings, mostly unnamed and often showing so strongly the influence of one parent that it is almost impossible to make a sensible suggestion as to the other parent. I have already mentioned the R. meddianum hybrid which is, to all intents and purposes, a magnificent form of meddianum; and the copiously spotted R. coriaceum hybrid, which, whatever the other parent may be, is quite a break from coriaceum. Another fine hybrid is 'Essa'obviously a hybrid of R. eximium though impossible to say what the other parent is; no matter, 'Essa' to me is more attractive than eximium—the foliage almost as good, and the large truss of flowers, white and diffused and veined with the palest pink and deeply crimson blotched, better. Of 'Crarae' it is possible to speak with even less certainty. Raised by Sir George and Mr. Ilay Campbell, it is presumed to be a seedling or hybrid of R. niveum and first came to the fore in 1963 when, at the Scottish Rhododendron Show, it won the National Trust for Scotland Rhododendron Trophy for the best hybrid truss or spray. At the same Show the hybrid was submitted to members of the Rhododendron and Camellia Committee who did not think it worthy of the A.M. There was no doubt this time. Sir George and his son exhibited

a splendid vase of several trusses and the A.M. was unanimously approved. The leaves, with a white mealy indumentum below, suggest the influence of *R. niveum*. And so does the flower truss; the individual flowers are not so compacted in the truss as in *niveum* but the colour strongly suggests *niveum*—Orchid Purple (H.C.C. 31/2) stained and faintly striped with Orchid Purple (H.C.C. 31/1) and with a small blotch in the throat of Dahlia Purple (H.C.C. 931). But the corolla of *R. niveum* is five-lobed; that of 'Crarae' seven-lobed. From whence have come the extra two lobes?; from *R. hodgsonii* is my guess—and probably no better a guess than yours.

RHODODENDRON NOTES

R. lochae

R. lochae is not overwell documented, and apart from the rather heavily coloured illustration in B.M. t. 9651 and the black and white Fig. 32 in the 1958 Rhododendron and Camellia Year Book, which does not do full justice to the foliage, has not attracted significant pictorial representation.

During a recent visit to North Queensland I was fortunate to meet Mr. Jack Wilkie who established a route to the peak of Mount Bartle Frere (5,287 feet) some twenty years ago in connection with his interest in native orchids, and he willingly agreed to lead me as far as I could follow towards one of the four known homes of R. lochae.

The rain forest commences after about four miles of approaching gentle grades and terminates quite abruptly after hard climbing to about 4,200 feet. The remainder of the approach to the summit carries only low-growing plants in the relatively small areas offering root holds among innumerable rocks and boulders of every shape and size (Fig. 47).

R. lochae was not found as an epiphyte in the steamy forest although its reported host, Eugenia ventenatti, was examined whenever possible. It has since been ascertained that that form of growth is peculiar to Mounts Spurgeon and Windsor, to the north of Mount Bartle Frere and Mount Bellenden-Ker, where Agapetes

serpens is usually associated with R. lochae as an epiphyte.

Our overnight camp was established in the shelter of a huge boulder, and at daylight we found a robust specimen of R. lochae close by at 4,300 feet. This proved typical of the twenty plants subsequently found, each similarly rooted in a deep crack in or between boulders, with roots always cool and protected from sun, wind and collectors. The tallest plant reached 5 feet above its point of emergence and spread in loose straggling growth for about 5 feet. This straggly growth appears to facilitate occasional layering between surrounding boulders, and may reconcile us to similar growth in other species which receive assistance to survive from their not overtidy habits (Fig. 48).

Only one flower was found, the colour being similar to the description of the A.M. form and established garden forms at Olinda, and it is unlikely that any material variation occurs. Two capsules were collected and have yielded a batch of sturdy seedlings which appear identical with each other and with those raised from self-pollinated garden plants. *R. lochae* roots readily from cuttings and flowers in not more than five years without making the leggy growth previously referred to if adequate root run is provided.

Well-grown plants in a wind- and frost-free location are attractive and well support the 1957 A.M., but the foliage of plants subjected to temperatures below 40° loses its gloss and becomes blotched with dull red patches. Flowers are late, usually after

R. auriculatum.

It is with some promise of future interest that I record marked signs of affinity between R. lochae and unidentified seedlings recently raised from a collection made in Papua at 9,000 and 11,000 feet from plants reported as producing large, medium and small "red" blooms. Many of the Papua and New Guinea species placed in series Javanica do not conform with R. lochae, and more research is necessary when adequate flowering material is available.

B. MENELAUS

"Silvermist", Olinda, Victoria, Australia

Rhododendron hemsleyanum

When I visited the Rhododendron Test Garden at Portland, Oregon, in May 1964 I was much impressed with *R. hemsleyanum* which was just coming into flower. I believe that out of two or three plants in the Garden one had produced a single truss before, but this was the first occasion in which this very rare species had produced several trusses on two plants, thus allowing for successful cross-pollination. As far as I know there are no plants approaching flowering size in the British Isles.

R. hemsleyanum was originally discovered by E. H. Wilson on or near the famous Mount Omei in Szechwan, but he never sent home seed. It belongs to the series and subseries Fortunei. It is described as a small tree up to 18 feet, but the plants in Portland have branches near the base and show every sign of ending up as large shrubs by no means dendriform. As will be seen from the accompanying Fig. 53, sent me through the kindness of Mr. Cecil Smith of Aurora, Oregon, the flowers are close to those of R. discolor

except that *R. hemsleyanum* flowers in May, but what is most remarkable is the foliage, so deeply auricled as to be quite unlike that of any other rhododendron. The leaves in the Test Garden were fully 8 inches long and 4 inches wide, oblong-ovate, and quite noticeably thick and leathery in texture, a very dark, dull green above, slightly paler below.

This is a most handsome plant that will, I hope, in time grace our

gardens.

E. H. M. Cox

KURUME AZALEAS GROWING IN THE OPEN AND IN THE FULL SUN

When I arrived in Cornwall in 1961 to my new abode Tremeer, I brought some of my favourite rhododendrons and plants from my late home Tower Court, Ascot, Berks. My husband and I wanted some colour on the lawn beneath the terraced wall, but whatever we chose had to be ultimately of moderate height.

I suggested Kurume azaleas for they love the sun, flower abundantly each year and possess an added glory, namely variation of foliage not only in shape but when shedding their secondary foliage. They also have most beautiful autumn tints from yellow, gold,

bronze, red, etc.

I also felt these plants in the Cornish climate would stand full exposure, as compared with the Berkshire climate where it is essential to have dappled shade; there the atmosphere is very different. It can be extremely hot and the sunrays can scorch the delicate shades, in particular the salmon and flame colours.

We made two beds each to contain twenty-five plants of the Yokohama lot, and a further bed to contain ten out of the Wilson Fifty planted along with *simsii* var. *eriocarpum* forms plus other

azaleas.

These Kurumes are the original ones which my late husband imported as small plants from the Yokohama Nurseries from 1927 to 1929, so we can say they are around forty years old and now measure 5 to 7 feet across.

To come to quite a different climate as fully matured plants speaks well for their constitution; they have behaved remarkably well during these last four years; only one thing worries me, the climate here being more humid, particularly during winter months, their sap never goes down, consequently, flowers burst forth at odd times! I always fear some appalling frost will appear during February, then bark split is likely to ensue.

However they withstood the drastic 1963 winter, when nearly everyone all over the British Isles suffered burst pipes! and many other calamities and upon thinking back, I recollect we had a superb October (Indian Summer) which ripened their wood and young growths, followed by a normal very cold November which sent down their sap, consequently they withstood that very severe period. I may say I crowed a little for they had done what I hoped they would do, and they did not let me down!

There is, however, one unfortunate side to this moist atmosphere; the evergreen azaleas are very prone to Blister Blight but fortunately these mature Kurumes are wonderfully clear this year—so maybe their full exposure is helping to combat this

miserable complaint.

The photograph (Fig. 25) taken this year in May by Mr. Down-

ward shows how well these plants are doing.

The plant in the foreground is 'Hinode-no-Kumo' (a Yokohama choice), measures 2 feet 6 inches in height by 7×5 feet and in my opinion is much deeper and better than the Wilson 42 'Hinodegiri' Bright Crimson which now measures 2 feet 6 inches in height by 6×5 feet. The tallest plant in further bed back row measures 6 feet in height.

Now their flowers are over and in their place are the beautiful young growths with various foliage in different shades of green, so

giving us another dividend.

ROZA HARRISON

Tremeer, St. Tudy, N. Cornwall

NAMING RHODODENDRON HYBRIDS

BEING detailed for other duties, I was unable unfortunately to attend Mr. Slocock's talk on the Breeding of Hardy Hybrid Rhododendrons on the first day of the Rhododendron Show last May (in 1964), and now that I have had the opportunity to read what he said in the Journal for October (1964) I realize how much I missed.

As he has linked my father's name with a system of naming hybrid Rhododendrons which showed their parentage, I think Fellows may be interested to know the origin of this system, now superseded by the 'Little Bert'—'Conococheague' school.

The earlier system, followed by my father, Lord Stair, Lord Aberconway and Admiral Heneage-Vivian among others, originated from the Royal Botanic Garden at Edinburgh, as will be seen from the following extracts from letters that my father received from the Regius Keeper, Professor Sir Isaac Bayley Balfour:

31.8.18. "I am strongly in favour of naming hybrids if possible by the combination method—that is a word coined out of a portion of the name of each parent. This is more satisfactory than either the popular English name, or the name in Latin form. Thus "prostigiatum" would carry out the intention in the case of your hybrid, and it is a name not likely to be absorbed by any other plant."

26.10.18. "... Now as to names. I must not mislead you, as I fear I may have done, to think that the termination of the name of the male plant should always be taken to add to the first part of that of the female in making up the name of the hybrid. The aim of the system is to get an indication of parentage in a name of as euphonious a form as possible. To take a typical case from Primula. Primula Marven is a well sounding name for a hybrid P. marginata $\times P.$ venusta. In the case of your R. prostratum $\times R.$ fastigiatum, I suggested R. "prostigiatum", for it sounds to me better than "prostfast". But now if you take the other hybrids for which you suggested names.

101 and 238. Why not decauck instead of decaucklandii

133. Why not Auckivor

129. " " Kewdec

179. " " Thomkings

190. " " Cinncrass

220. " " Campbut

180. " " Arbsutch

219. Lepidoboothii is good, but perhaps too like a specific name

178. Why not Cornsutch or Corsutch

183. " Campylothoms

218. " " Oreocinn

232. " " Haemkings?

"The great point to keep in view is that the name shall not be so like a specific one as to mislead, while at the same time parentage is indicated."

In practice, my father mostly used this system for interspecific hybrids, taking as a rule the first syllable of the name of each parent, the seed parent coming first. For hybrids between a species and a hybrid or between two hybrids, he had resort for the most part to the names of Greek ladies from Dr. William Smith's Dictionary of Greek and Roman Biography and Mythology. In the interest of euphony, however, he occasionally also gave proper names to interspecific hybrids, such as Maya.

Lamellen

E. W. M. MAGOR

THE DROUGHT RESISTANCE OF Rhododendron moupinense

THE ability of Rhododendron moupinense to withstand prolonged periods of drought does not appear to be generally recognized. This valuable characteristic has seemingly been transmitted, at least in some measure, to all of its hybrid progeny with which I am familiar—namely 'John Marchand', 'Tessa', 'Bric-à-Brac' and 'Cilpinense'. That the species should be unharmed by periods of almost complete desiccation is no doubt due to the fact that in Nature it is largely, if not entirely, an epiphyte—a habit which even in a wet climate must often expose it to very dry spells. To simulate as nearly as possible its natural conditions I have planted an example of R. moupinense in a small hollow on the top of an old tree stump where, even during the driest of our summer months, it does not seem to suffer in any way. Grown in a relatively dry situation the species has proved to be perfectly hardy in my garden. For these reasons, I should imagine that R. moupinense and its descendants are probably among the most suitable varieties for planting in the drier south-eastern counties of England.

Benenden, Kent

COLLINGWOOD INGRAM

SITING RHODODENDRON SPECIES

THESE notes are based on my experience in growing rhododendron species in east Sussex over the last fifteen years. The garden is on the crest of a small hill, and so escapes many of the spring and autumn frosts; the drainage however is rather poor, as there is heavy clay about 2 feet down. The pH is 5.7. What I have had to discover by trial and error may be of some help to other gardeners.

In my experience, R. orbiculare cannot stand being dry at the roots. I nearly lost a plant in the woodland which suits most of the other species; I moved it and a companion down to the wettest corner of the garden and since then they have never looked back. In a wet winter they are practically in mud. In Cornwall there are

famous plants growing in gravel pits, which must be water catchments; I think this should be considered almost a marsh plant.

The contrary is true of its fellow in the subseries *R. cardiobasis* (which I have not yet flowered); a plant placed next to the *R. orbiculare* died within twelve months; of the two remaining, easily the stronger growing is planted in full sun against a south-facing fence and with no overhead shade.

Another species which cannot stand water round its roots is *R. souliei*; it demands almost the best-drained sites in the garden; it seems to prefer a little top shading.

R. williamsianum does best with me in absolutely full sun. Where it is shaded, it does not set nearly as many flower buds and the

growth is not so neat.

R. griersonianum flourishes in almost the driest and shadiest place in the garden, on a slope quite near tall trees. It did not do well with me in even half sun, though I have seen it doing well in full sun in Cornwall and Ireland.

The plant I find most difficult to site is *R. auriculatum*. In shade it grows almost rampantly but does not set flower buds; in full sun it grows less vigorously and sets plenty of buds, but the flowers are so fragile that if there is sun in August they are scorched as soon as they open. I have still not found a satisfactory position for this plant.

One of the most accommodating rhododendrons in this garden is *R. edgeworthii* (acquired as *R. bullatum*). I have two plants of different clones outside, one in nearly full sun and one in nearly full shade; both flower regularly. They lost their buds after the 1962–63 winter but no growth; *R. ciliatum* was reduced to less than

half its size.

I am experimenting with growing species of the *Maddenii* series out of doors, as I think many of them have a not altogether merited reputation for tenderness. Those that I have kept through more than one winter and flowered outside include *R. crassum* (against a north wall), *R. burmanicum* (I am not certain this is a true species), *R. fletcherianum* (in full sun), *R. johnstoneanum* and *R. valentinianum*. *R. polyandrum* seems hardy enough as a plant, but tends to lose its buds. The same tendency to bud tenderness characterizes many of the *Maddenii* hybrids, such as 'Princess Alice', 'Lady Alice Fitzwilliam', 'Fragrantissimum', 'Saffron Queen', 'Eldorado', 'Chaffinch' and the like. All these seem hardy enough as plants in an ordinary winter, though I did lose a big plant of 'Princess Alice' in 1962–63.

After experimenting with what seemed the most favoured sites, I find that plants of the *Maddenii* series do best in almost the coldest section of this fairly protected garden, in a corner with high holly hedges to the south and east, and with a good deal of overhead shade, chiefly from deciduous trees. I think this may be due to the fact that the plants are not tempted into precocious growth in the early spring as in warmer sites, and so are less susceptible to later frosts.

GEOFFREY GORER

Sunte House, Haywards Heath

Rhododendron ponticum WITH DOUBLE FLOWERS

In June 1965, in the park of Bad Brückenau in Bavaria (about 30 miles north of Würzburg) I found in the centre of a rather poor flowering group of common *Rhododendron ponticum* a big bush with double, or rather, semi-double flowers. The whole group was some 20 feet across and 6 to 7 feet tall, standing completely in the shadow of an enormous copper beech in front of the Hotel Fürstenhof.

The flowers were the same colour as the common *R. ponticum*, but they were a little bit larger, hose-in-hose. I could not find any difference from the normal type in the leaves. By chance I had the *International Rhododendron Register* with me, and so I could see that there is no double *R. ponticum* known yet (Fig. 43).

As there were other hybrids in the park I tried to find a plant of 'Fastuosum Plenum' for comparison, and I succeeded in finding one. The flowers of the new form are smaller, and consist of two corollas. The outer corolla has the normal form and size of the *R. ponticum*, the same colour and the orange-brown markings in the throat. The inner corolla is mostly split into eight to ten small and narrow portions, mostly 1–1.5 cm. large and up to 3 cm. long. The portions are not uniform, but often two or three grow together. There are about twenty sterile anthers with long filaments. Sometimes there are petaloid enlargements at the base of the filaments. There is no pistil, only a rudiment consisting of some very small green and completely deformed carpels, whilst in 'Fastuosum Plenum' there is a big red pistil.

As there seems to be always some interest in double rhododendrons it would perhaps be worthwhile propagating the plant, and so I was happy that M. SAUER, the head gardener of the Kurverwaltung Bad Brückenau, gave me some cuttings. I am sorry to say that my picture does not show how free flowering the plant is, because I took a close-up of a group of only a few trusses to get a better picture.

G. KRÜSSMANN

Botanic Gardens, Dortmund-Brünninghausen, West Germany

RHODODENDRON GROUP VISIT TO WESTONBIRT ARBORETUM

ON May 6, 1965

MEMBERS of the Rhododendron Group paid a pleasant visit to the Arboretum at Westonbirt on May 6, 1965. Members were received and guided round by Mr. E. Leyshon, the Head Forester, and his assistant. Much regret was expressed when it was learned that Sir Eric Savill, who proposed the visit originally,

was unwell and unable to be present.

Westonbirt is famous for its fine trees and shrubs, and it must have come as a surprise to many people that the Arboretum contains a collection of rhododendrons of considerable age and size. Many of these have been described by Mr. T. H. Findlay in an article in The Rhododendron and Camellia Year Book, 1965. It could not be said that 1965 was a good season for many rhododendrons at Westonbirt, but Members were able to see a happy planting of a very tall, old plant of R. campylocarpum flowering with a R. thomsonii of the same age. A very large plant of R. fictolacteum with glossy green leaves and rust-coloured indumentum was also flowering freely. A huge plant of R. auriculatum, which was full of bud, promised well for later in the season. There were groups of R. arboreum, varying in colour from rosy-red to white, whose trunks were really tree-like. Among smaller-growing plants R. orbiculare was noticeable for its very dark purple-pink bells and a very rich-coloured R. albrechtii was also in flower.

The day was a grey one and none too warm, but even under such conditions the beauty of the young growth of many deciduous trees and shrubs in this remarkable collection was outstanding. Tetracentron sinensis, Aesculus marylandica, Nothofagus antarctica and the yellowish young growth of Pterocarya fraxinifolia were of great beauty, each tree being perfectly placed against a dark background. The attractive bark of many of the birches such as the white Betula jacquemontii and the coffee and cream B. utilis were conspicuous. A big tree of Prunus serrula, usually notable for its mahogany-coloured bark, was in full flower and reminded one of

the "Snowdrop tree". Nearby a healthy young Cornus nuttallii was covered with its white green-flushed bracts which are as striking as any flower. Finally in the Acer Glade the young leaves, which varied from pale bronze to soft green, were immensely attractive.

CAMELLIA COMPETITION FOR CAMELLIAS GROWN UNDER GLASS OR IN THE OPEN

March 16 and 17, 1965

THE abrupt arrival of mild weather after a period of snow, frost and icy winds in early March brought flowers on quickly. The newly instituted competition for camellias grown under glass or in the open benefited from this change and many splendid flowers were to be seen. There were 117 entries from 11 competitors.

Section 1 which included Classes 1 to 16 was for single cultivars of Camellia japonica. In Class 1 for a single white cultivar Messrs. Waterer, Sons and Crisp, Bagshot, Surrey, were first with a fine large 'Rogetsu' some 4 inches across. The 'Devonia' of the Duke of Devonshire, Chatsworth, Derbyshire, which was second, was smaller but equally attractive with its wavy petals. Another 'Devonia' won third prize for the Crown Estate Commissioners, The Great Park, Windsor. Class 2 for any self-coloured, single cultivar had nine entries with an imposing 'Juno' from Messrs. Waterer. The Duke of Devonshire was second with a 'Jupiter' which was of the same high standard. Of the two 'Juno' has more blue to its bright crimson, but both are attractive. Entries in Class 3 for a single variegated variety were singularly few and uninteresting. Class 4 for one bloom each of three single-flowered cultivars contained some fine flowers. Mr. R. Strauss, Ardingly, Sussex, who took first prize, had a fine flower of the rose-pink 'Hatsu-Zakura', 'Sylva' and 'Red Cardinal' which was of a particularly intense red. 'Juno', an unnamed cultivar and 'Kimberley' took the second prize for Messrs. Waterer. The latter flower was of a fine, firmlooking texture. Mr. O. A. S. Cutts, New Westbury, Garrards Road, S.W.16, showed 'Fascination' whose white background was admirably striped rose pink, a seedling and the delicately coloured and aptly named 'Apple Blossom'.

Classes 5 to 8 were for semi-double cultivars and Class 5 was for any white cultivar. Messrs. Waterer were first with 'Haku-Rakuten'. Its yellow stamens were showing most attractively among the informally arranged centre petals. Mr. R. Strauss was second with the wide open 'Angel'. 'Finlandia' was third for Mr. H. G.

Ayling of Stanmore, Middlesex. In Class 6 for a self-coloured cultivar other than white, Mr. R. Strauss was first with an impressive 'Guilio Nuccio', some 5½ inches across. The second prize went to the Hydon Nurseries, Hydon Heath, Godalming, Surrey, for an exquisite 'Magnoliaeflora' shown in perfect condition. Mr. Cutts' 'Hana-Fuki' was third. This fine flower was just past its peak. Class 7 was for any variegated cultivar. Sir Giles Loder took first prize with a most imposing flower from Leonardslee of 'Drama Girl' which was some 51 inches across. Mr. R. Strauss was second with another fine 'Drama Girl' and third with 'Geisha Girl'. The qualification of "variegated" for this class must have confused many people. The pale pink 'Geisha Girl' was indeed beautifully striped and flaked, but to the average eye 'Drama Girl' appeared self-coloured. Such, we were assured, was not the case, as 'Drama Girl' has flecks and is not truly self-coloured. This was apparent once one's attention had been drawn to the fact. There were many splendid flowers in Class 8 for one bloom of any three cultivars. Mr. Strauss won both first and second prizes. His 'Saudade de Martins Branco', a rich red blotched white, was in perfect condition. 'Virginia Robinson', in his second entry, was raised at the Nuccio Nurseries in California and is a soft orchid pink, and large as well. Messrs. Waterer took the third prize and had, along with 'Apollo' and 'Lady Clare', the large white 'Emmett Barnes' with wavy and twisted petals and stamens intermixed. 'Mrs. D. W. Davis' was shown by the Crown Estate Commissioners in this class. Its large blush-pink flowers are always impressive, but in this case the bloom was just past its best.

Classes 9 to 12 were for anemone and paeony-formed cultivars. In Class 9 for a white cultivar only one prize was given out of three entries, and that a third to the Hydon Nurseries for their 'Nobilissima'. Unfortunately 'Barbara Woodroof' which was shown by Messrs. Waterer was disqualified as not being in the right class. It is a sport of 'Elegans' and the flower shown was of an exquisite soft pale pink. Mr. Strauss took another first prize in Class 10 for a self-coloured cultivar with a perfect flower of 'King's Ransom'. It was a lovely fresh pink and is yet another American-raised variety whose value as a garden plant in our climate is to be determined. Messrs. Waterer were second with another American, the strawberry-pink 'Tomorrow'. They were third with 'Cardinal', yet another American. It appeared to be a welcome addition to the ranks of the bright reds. 'Extravaganza' gave Mr. Strauss yet another first in Class 11 for any variegated cultivar. The cup-



Photo: J. E. Downward

Fig. 51.—*Rhododendron* 'Cornish Red' in flower in May, 1965 at Lamellen; it is 50 feet high and probably 100 years old. 'Mrs. Kingsmill' is in the left foreground





Fig. 52.—Rhododendron 'Hill Ayah', A.M. June 29, 1965. Exhibited by Major E. W. M. Magor, Lamellen, St. Tudy, Cornwall (see p. 164)

FIG. 53.—Rhododendron hemsleyanum (see p. 133)

shaped flower was 4½ inches across and the light red striping was most effective on the white background. 'Mathotiana' gives sports freely and there are eight of them named. Sir Giles Loder took the second prize with a fine 'Mathotiana Supreme Variegata' with flattish outer petals and erect, central petalodes. Mr. Strauss was third with 'Carter's Sunburst' whose pale pink flower was striped and flaked a darker shade like a carnation. Variegated flowers are not to everyone's taste but it must be admitted that these and other cultivars with well-marked variegations such as the red and white 'Dr. John D. Bell', the delicately coloured 'General Lamorciere', the richer hued 'Bella Romana', 'Aspasia' and 'Daikagura'-all entered in this class-form a relief to many of the heavier or richer self-coloured cultivars. Mr. Strauss took both first and third prizes in Class 12 for one bloom of three cultivars. All six were American raised and included the crimson 'Reg Ragland', the soft pink variegated 'Masquerade' and the bright pink 'Stardust'. Messrs. Waterer who won the second prize showed a very old cultivar, the rose-pink 'Lady Mary Cromartie', and two recent Americans, 'C. M. Wilson' (light pink) and 'R. L. Wheeler'

(rose-pink).

Classes 13 to 16 were for any rose-formed or formal double cultivars, Class 13 being for any double white. Mr. H. G. Ayling was first with an impeccable 'Mathotiana Alba' though Messrs. Waterer's lovely cool 'Joshua E. Youtz' ran it very close. The Duke of Devonshire showed an admirable 'Alba Plena' which won the third prize. In Class 14 for any self-coloured cultivar, the Duke of Devonshire's somewhat dusky-red 'Mathotiana' was awarded the first prize with the Hydon Nurseries' 'Rubescens Major' and Mr. Ayling's 'Mathotiana Rosea' second and third respectively. Class 15 was for any variegated cultivar and both the Crown Estate Commissioners and Mr. Ayling, who took the first and second prizes respectively, showed 'Augusto L. Gouveia Pinto'. This again is not the usual idea of a variegated cultivar. The petals which are pink suffused with lavender, have each one of them a white margin. Messrs. Waterer won the third prize with 'Coquetti Variegata', whose bright red was irregularly variegated with white. Mr. Ayling's 'Mathotiana Alba', 'Souvenir de Bahuaud Litou' and 'Grand Sultan' won the first prize in Class 16 for one bloom of three cultivars. The dark red flower of the latter was perfect in form and quality. The Duke of Devonshire was second with his 'Mathotiana', 'Madame Le Bois' and 'Contessa Lavinia Maggi Rosea' whose flower was less formally arranged than that of 'Grand Sultan' and some of whose petals have a not very conspicuous stripe. 'Purple King', 'Prince Albert' which dates from the era of the Prince Consort and was much like 'Contessa Lavinia Maggi' but perhaps not so well shaped, and the red, fimbriated 'Flowerwood' won the third prize for Mr. Strauss.

Classes 17 and 18 were for mixed types of Camellia japonica. There were many striking flowers in Class 17 for any six cultivars, four of each of the six entrants winning prizes. The Crown Estate Commissioners who were first had a splendid large 'Kelvingtonia' and 'Lady Clare', 'Adolphe Audusson' and 'Elegans' in beautiful condition. The second prize went to Messrs. Waterer who had among other entries the bright red 'Edwin Folk', 'Tomorrow' and 'R. L. Wheeler', three American-raised cultivars which are becoming known in this country, and a very large flower of the rose-pink 'Faith'. This was quite 6 inches across but was unfortunately just past its best. The Duke of Devonshire who won the third prize had a quite perfect flower of 'Jupiter' and a lovely 'Alba Plena'. Mr. Ayling was fourth with among others a lovely 'Kenny', 'Haku-Rakuten' and the dark red 'Letitia Schrader'. Class 18 was for one spray each of three cultivars. The Duke of Devonshire was first with the charming pale and white striped 'Mme. de Strekaloff', the formal double 'Mme. Le Bois' and 'Mme. Victor de Bisschop'. The correct name of this last cultivar has not yet been established and the earlier name of "Le Lys" may be substituted in its place. Messrs. Waterer, the only other entrant, were given the second prize with 'Coquetti', 'Nagasaki' and 'Fleur de Peche'. In this instance the name does describe the colour.

Classes 19 to 24 were for species other than *C. japonica*. There were no entrants in Class 19 for the wild single form of *C. reticulata*. However in Class 20 for *C. reticulata* 'Captain Rawes', the Duke of Devonshire once again took first prize with a sumptuous flower which with the exception perhaps of one or two of the Kunming *reticulatas* still remains one of the most splendid of camellias. There were eight entries in Class 21 for any form of *C. reticulata* other than those specified in Classes 19 and 20. The Crown Estate Commissioners were first with a fine large flower of 'Noble Pearl' which is a lovely crimson and second with 'Buddha' which is a bluish pink shading to crimson. These two cultivars do appear to be among the finest of the Kunming *reticulatas*. Sir Ralph Clarke was the only entrant in Class 22 for a spray of *C. saluenensis* and was given a second prize. It appeared to be too early for this species. The Crown Estate Commissioners alone had an entry in

Class 23 for any species other than C. reticulata and C. saluenensis and had a spray of the small white-flowered C. fraterna, a species which cannot have been seen in the Hall before.

Classes 25 to 30 were for hybrids and the Crown Estate Commissioners were first in Class 25 for one bloom of C. × williamsii with the strong pink 'St. Ewe'. Mr. Cutts was second with the apple-blossom-like 'First Flush' while the Duke of Devonshire's 'Bartley Pink' was third. In Class 26 for a spray of a williamsii cultivar the Duke of Devonshire's 'Donation' was first but quite outshone by a wonderful spray from Windsor, arching with the weight of its flowers, which was disqualified as perhaps being 'Inspiration', one of whose parents is given as C. reticulata. There is little evidence in the opinion of many people of C. reticulata blood in this hybrid. It has hard glossy foliage and propagates easily like the williamsiis. The Hydon Nurseries were first in Class 28 for a hybrid other than a single-flowered one, of which one parent is C. reticulata, with 'Leonard Messel'. This was a lovely flower. Another flower of it took the third prize for Mr. Strauss. The Hydon Nurseries were second with a very bright 'Inspiration'. Mr. Cutts' 'Inspiration' was first in Class 29 for a spray of a hybrid and Sir Giles Loder second with the phlox-pink 'Bonnie Marie', an attractive semi-double of which one had heard but not seen.

Classes 31 to 33 were for camellia plants in bloom. In Class 31 for one plant Messrs. Waterer were first with 'Nagasaki' and again first in Class 32 for three plants, with 'Fanny Bolis', 'Flowerwood' and 'Dr. Tinsley'. Miss C. A. M. Marsh of Dulwich Wood was the only entrant in Class 33 for a plant not exceeding 36 inches from the soil and shown by an exhibitor who has not won a prize for a plant in bloom at an R.H.S. Camellia Competition, with 'Mme. Victor de Bisschop' and 'Bella Romana'.

TRADE EXHIBITS

Messrs. Waterer were awarded a Gold Medal for their large, long exhibit under the clock in which they had grouped mature plants interspersed with young ones, in great variety. They included many new or newer varieties. Visitors were able to see, probably for the first time, 'Her Majesty Queen Elizabeth II', a recent American cultivar with deep salmon-pink flowers. Other American varieties in the group were 'Ave Maria', 'Joshua E. Youtz', 'Blush Betty Sheffield', 'Berenice Boddy', 'Dr. John D. Bell' and 'Pink Pearl'. There was of course no dearth of older and European cultivars.

Messrs. L. R. Russell had a number of camellias in their exhibit of mixed trees and shrubs and 'Hatsu-Zakura', 'Lady Vansittart', 'Mercury' and 'Paolina Guichardina' were notable. Messrs. Haskins Bros. had one of their usual low exhibits with some excellent flowers of 'Frosty Morn', 'Yoibijn', 'Frau Minna Seidel' and 'D. Herzilia De Feitas Magalhaes' whose lengthy name does not conceal an unusual violet-red shade.

THE LATE CAMELLIA COMPETITION April 13 and 14, 1965

By REGINALD A. R. TRY

THE milder-than-average winter 1964-65 was reflected in the fine exhibition of blooms and sprays which had been grown in the open, displayed on the two long sections of staging down the whole length of the New Hall. For this Competition protection from frost for a few days before the Competition was allowed.

Eighteen competitors submitted 430 entries. This shows an increase on last year but falls far short of the support given the Competition before the "great freeze" of 1963. In 1960, thirty

competitors staged 845 entries.

Sir Giles Loder of Leonardslee, was overall prize winner with 19 firsts, 15 seconds, 10 thirds, 2 fourths and a highly commended, taking about a quarter of the total awards. "Runners up" were the Crown Estate Commissioners with 29 awards including 14 firsts. Other notable prize winners were Maj.-Gen. E. G. W. W. Harrison, Tremeer, St. Tudy, Cornwall; Mr. O. A. S. Cutts, New Westbury, Garrards Road, S.W.16; and Messrs. Waterer, Sons

and Crisp Ltd., Bagshot, Surrey.

The first eight classes, devoted to single-flowered varieties of Camellia japonica, were very well supported. Class 1: 'Alba Simplex' or 'Devonia', attracted thirteen entries; Gen. Harrison was first, Mr. Riggall, Titness Park, Sunninghill, was second and Messrs. Waterer third, all showing 'Alba Simplex'. The quality of the prize-winning blooms could not have been surpassed if they had been greenhouse protected and this was the pattern generally throughout the various classes of the Competition. Class 2 for 'Jupiter' or 'Sylva' gave a well-deserved first prize for an outstanding bloom of 'Jupiter' to Sir George Jessel, Ladham House, Goudhurst, Kent, with Sir Giles Loder second, showing 'Jupiter', and General Harrison third with 'Sylva'. The ten entries made a good display. Class 3 for 'Kimberley' had only three entries with Mr. E. de Rothschild, Exbury, first, showing an excellent bloom, and Messrs. Waterer second. Class 4 for any single red not specified above attracted five entries. A seedling from Mr. Cutts gained first prize, Gen. Harrison staged 'Donckelarii Fulgens'

for second and Mrs. G. Preston, Slaughan Park, Handcross, Haywards Heath, took third place with a new red seedling of promise. Class 5 for any single white variety not already specified also attracted five entries. First were the Crown Estate Commissioners showing a good specimen of 'Yuki-Gasa' of cupped form; the translation of this name is "Umbrella under Snowfall". Second was Sir George Jessel, with 'Rogetsu' (translated as "Hazy Moon") and third Mr. E. de Rothschild, showing 'White Swan'. The eight entries in Class 6 for any single flower other than red or white not already specified made an interesting group. The Crown Estate Commissioners and Sir Giles Loder, both showing 'Hatsu-Zakura', were placed first and third respectively, with Mrs. Preston gaining second prize with her seedling 'Gertrude Preston'. Class 7 for any single flower of Camellia japonica not already provided for in the schedule attracted nine entries. Mrs. Preston won first prize showing an excellent flower of 'Apple Blossom', and Mr. Riggall was second with an interesting seedling that was a mixture of red blotches and stripes and thin pencil markings on white. Sir Giles Loder was third with 'Snow Goose'. Class 8 for any three single-flowered varieties of Camellia japonica, was well supported with nine entries. Mr. Riggall was first, staging 'Hatsu-Zakura', 'Alba Simplex' and another specimen of the seedling entered in Class 7. Second prize went to Mrs. Preston with three unnamed seedlings, one being of unusual colour with a pale lavender centre, blending to a deep bright pink at the edge. Third prize was won by the Crown Estate Commissioners with 'Jupiter', 'Devonia' and 'Hatsu-Zakura', General Harrison was awarded fourth prize for showing a deep rose-pink bloom of 'Treyge', 'Alba Simplex' and 'Hatsu-Zakura'.

Classes 9 to 20 covered the sub-division for semi-double varieties of Camellia japonica. In Class 9 for the old favourite 'Adolphe Audusson', there was a fine entry of twelve excellent blooms; first was Mrs. M. E. McDonald, second Sir Giles Loder, third Mrs. E. M. M. Paton, Gorse Hill Manor, Virginia Water, and fourth Mr. Cutts. Class 10 for 'Donckelarii' produced a fine competitive entry of eleven excellent blooms. First prize went to Sir Giles Loder, second to R. Strauss, Stonehurst, Ardingly, Sussex, and third to Mr. Riggall. This well-known variety responds well to "Gibbing". Class 11 was for 'Gloire de Nantes'. From the eight entries the judges had no difficulty in awarding first prize to Mr. Cutts for a bloom outstanding in perfection. Sir Giles Loder was second and Mr. Strauss third, Class 12 for 'Latifolia'

found four entries but only first and second prizes were awarded, to Mr. Riggall and Mr. Cutts respectively. In Class 13 for 'Lady Clare', a colourful show of ten blooms was staged with Sir Giles Loder first, General Harrison second and the Crown Estate Commissioners third. In Class 14 for 'Magnoliaeflora', Mrs. Preston was first, General Harrison second and Messrs. Waterer third. The delicate blush pink of this lovely variety was shown to perfection between the classes of deep pink 'Lady Clare' on the one side and the rose-pink and white 'Nagasaki' on the other. Class 15 for 'Nagasaki' attracted eight entries. A large, finely marked bloom secured first prize for Viscountess Falmouth, Tregothnan, Truro, Cornwall, with Mr. de Rothschild second and General Harrison third. Class 16 for any semi-double red variety not already specified found ten entries. First were the Crown Estate Commissioners with 'Apollo', and General Harrison was second with 'Apollo' and third with 'Mercury'. Particularly noticeable was Mr. Strauss's entry 'Boriera Da Silva', a deep red bloom with very imbricated petals. Dr. J. V. Laverick, 417 High Road, Wood Green, entered a very fine bloom of 'Mercury' which was also unrewarded. Class 17 for any semi-double white variety not already specified attracted eight entries. First was General Harrison with 'Gauntletti', Mr. Cutts was second with 'Southern Charm' and Sir Giles Loder third with 'Haku-Rakuten'. 'Shiro-Botan' entered by the Crown Estate Commissioners was interesting. It is a large bloom similar to 'Gauntletti' with loose paeony-form petals. Class 18 was for any semi-double self-coloured variety other than red or white and not already specified. Undoubtedly the outstanding entry was the deep salmon-rose-pink 'Drama Girl' entered by Mr. Strauss. This was a near-perfect specimen of this flamboyant introduction from the U.S.A. raised by E. W. Miller, Escondido, California, and well worthy of the first prize awarded. Second were the Crown Estate Commissioners with 'Hussar' and third Mr. Riggall showing 'Hana-Fuki'. There were eight entries. Class 19 for any semi-double variety not provided for in the former classes attracted six entries. Mr. Cutts gained first prize with 'Reg Ragland', and Sir Giles Loder and Mr. de Rothschild were second and third respectively, each showing 'Tricolor'. Mr. Strauss entered a good specimen of 'Extravaganza', a very large white anemone-form, vividly and profusely marked and striped with light red. In Class 20, with ten entries, thirty fine blooms were displayed of three semi-double varieties. A fine trio-'Hussar', 'Adolphe Audusson' and 'Mercury'—won first prize for the Crown

Estate Commissioners. Second prize went to Mr. de Rothschild with 'Lady Clare', 'Apollo', 'Ozonran'; third was General Harrison showing 'Mercury', 'Lady Clare', 'Gauntletti'. Mr. Cutts entered 'Mrs. D. W. Davis', 'Drama Girl' and a very interesting new

delightful pink variety well worthy of naming.

Class 21 to 28 provided for anemone-formed and paeonyformed varieties of Camellia japonica. Class 21 for 'Elegans' had eleven entries. First was Mr. Cutts, second Miss C. A. M. Marsh, 26 Dulwich Wood Avenue, S.E.19, and third Sir Giles Loder. In Class 22 for 'Nobilissima' Sir Giles Loder was first, the Crown Estate Commissioners were second, and Mr Cutts was third. Of six entries in Class 23 for 'Preston Rose' a well-merited first prize was won by Mr. Strauss; second was Viscountess Falmouth and third the Crown Estate Commissioners. Class 24 for any anemoneor paeony-formed red variety not specified above brought eleven entries. Sir Giles Loder was first, and the Crown Estate Commissioners were second, each staging 'Altheaflora'; Mr. Strauss was third with 'Emmett Pfingstl', and Sir Giles Loder was fourth with 'Mathotiana Supreme'. Class 25 for any white variety not already specified attracted only two entries. First was Mr. Cutts' 'Snow Chan' ('White Elegans'), and second Viscountess Falmouth with an unnamed variety. Class 26 Any anemone- or paeonyformed self-coloured variety other than red or white and not already specified-first was Mr. Cutts, second Mr. Riggall and third Messrs. Waterer, all of whom staged nice blooms of 'C. M. Wilson'; there were six entries. Class 27 was for any variety not already provided for in this sub-section, and attracted eight entries. First were the Crown Estate Commissioners showing 'General Lamorciere', second was Mr. Riggall with 'Eugene Lize' and third was Miss Marsh with 'Bella Romana'. Other entries in this class were 'Marguerite Gouillon' (another name for 'General Lamorciere') and 'Pink Lady'. Class 28 was for any three anemoneor paeony-formed varieties and of nine entries Mr. Cutts well deserved first prize for his group of 'Elegans', 'Kramer's Supreme' and 'Shiro Chan', a lovely white sport of 'C. M. Wilson'. Second were the Crown Estate Commissioners with 'Elegans', 'General Lamorciere' and 'Altheaflora'. Miss Marsh was third, showing 'Bella Romana', 'Emperor of Russia' and an unnamed cultivar. Mr. Cutts' second entry was 'Stella Sewell', 'Tomorrow' and 'Barbara Woodroof'.

Classes 29 to 42 provided for rose-formed and formal double varieties of Camellia japonica. Class 29 for 'Contessa Lavinia

Maggi' had four entries. First were the Crown Estate Commissioners, second was Mr. Cutts and third Messrs. Waterer. In Class 30 for 'Rubescens Major' there were five entries. First was Sir Giles Loder, second Messrs. Waterer and third General Harrison. There were four entries in Class 31 for 'Mathotiana'. Sir Giles Loder was first with an oustanding specimen, Messrs. Waterer were second and General Harrison was third. Class 32 for 'Mathotiana Rosea' was won by Messrs. Waterer, the Crown Estate Commissioners were second and Sir Ralph Clarke was third. Class 33 for 'Mathotiana Alba' attracted seven entries. First was Sir Ralph Clarke, second Mr. Strauss and third Messrs. Waterer. Classes 34 and 35 for 'Imbricata' and 'Imbricata Alba' respectively were poorly supported with only two entries each. Sir Giles Loder was first in Class 34, Mr. Cutts was second in Class 34, but first in Class 35, and Mr. de Rothschild was second in Class 35. In Class 37 for 'Coquetti' the six entries all varied somewhat in form, and the judges must have found it difficult to award the prizes. The result was first Sir Giles Loder, second Mr. Strauss and third the Crown Estate Commissioners. In Class 38 for any rose-formed or formal double red variety not already specified, Mrs. McDonald gained first prize, with a fine bloom of her favourite 'Margherita Coleoni', with Hydon Nurseries second. There were four entries but a third prize was not awarded. In Class 39 for any rose-formed or formal double white variety not already specified, of the three entries Mr. de Rothschild was first with an unnamed bloom and Messrs. Waterer were second with 'Alba Plena'. Sir Giles Loder took first prize in Class 40, calling for a self-coloured variety (other than red or white and not specified already), with an excellent bloom of 'Purple Emperor'; Mr. Cutts was second with 'Flowerwood', and Mr. Strauss third with 'Margaret Rose'. Class 41 for any rose-formed or formal double variety not already specified, attracted six entries. General Harrison was first with 'Lallarook', Sir Giles Loder was second with 'Mathotiana Supreme' and Mr. de Rothschild was third with 'Herme'; Mr. Strauss gained fourth prize with 'Maman Cachet', which is described as paeonyform in "Camellia Nomenclature". A fine unnamed double pink with white edge entered by Miss Anne Boscowan went unrewarded. Class 42 for any three rose-formed or formal double varieties provided good competition with six entries. Mr. de Rothschild was decidedly first with 'Auguste Delfosse', 'Hana-Tachibana' and 'Honey'. Sir Giles Loder was second with 'High Hat', 'Mathotiana Alba' and 'Princess Paolina Guichardina', and Messrs. Waterer

were third showing 'Flowerwood', 'Beauté de Nantes' and 'Rubescens Major'. General Harrison was fourth, with 'Lallarook', 'M. Faucillon', and 'Contessa Lavinia Maggi Rubra'. In Class 43 for one bloom of each of any six varieties of mixed types of Camellia japonica, the six entries made a fine show and for outside-grown the blooms were generally of the highest quality. Mr. de Rothschild won first prize with 'Apollo', 'Mars', 'Ozonran', 'Mercury', 'Gauntletti' and 'Lady Clare'. Messrs. Waterer were second with 'Hatsu-Zakura' 'Nagasaki', 'R. L. Wheeler', 'Rubescens Major', 'Flowerwood' and 'Coquetti'. For third prize General Harrison staged almost the same group as Mr. de Rothschild but with 'Donckelarii' in place of 'Ozonran'. Fourth prize was awarded to Sir Giles Loder, whose selection included a fine specimen of 'Pauline Winchester'. Miss Anne Boscowan took first prize in Class 44, open only to a competitor who has not won a first prize in an R.H.S. Camellia Competition since 1960, and she staged another specimen of the unnamed double pink mentioned in Class 41. A fine bloom of

'Mercury' gained second prize for Dr. Laverick.

Class 45 to 54 inclusive provided for miscellaneous species, hybrids, etc. other than Camellia japonica. Class 45, C. reticulata wild form, attracted three entries but only two awards were made. General Harrison was first and Sir Giles Loder was second. In Class 46 for any double or semi-double variety of C. reticulata there were five entries. First was Viscountess Falmouth, second Sir Giles Loder and third Mr. Strauss. Bearing in mind that these are grown in the open and unprotected the blooms exhibited were fair. Class 47 provided a good competitive entry of nine for one bloom of C. saluenensis and gave Sir Ralph Clarke a welldeserved first, with Sir Giles Loder second and Mr. de Rothschild third. Class 48 which called for any species other than cuspidata, japonica or saluenensis had two entries but only a second prize was awarded to Mr. Cutts for his Betty Mackaskill maliflora. In Class 49 there were thirteen entries for any single variety of × williamsii. This was a very interesting class with all blooms unblemished. The Crown Estate Commissioners were first with 'Parkside' and also second with 'J. C. Williams'. Mr. de Rothschild was third. Sir Giles Loder staged 'St. Ewe' to gain H.C. but his bloom of 'Francis Hanger' was unrewarded. In Class 50, ten fine blooms of 'Donation' gave the judges a problem. First were the Crown Estate Commissioners, second was Mr. Riggall, third was Sir Giles Loder and Mrs. McDonald was Highly Commended. Class 51 for williamsii hybrids any variety other than a single or 'Donation'

found only two entries of 'Citation' with the Crown Estate Commissioners first and the Hydon Nurseries second. Class 52 was for 'Salutation'. Out of five entries the Crown Estate Commissioners were first, Sir Giles Loder was second and Mr. Riggall third. Class 53 for any hybrid not already specified was very well supported with nine entries. Sir Giles Loder was first with 'Inspiration'. This was quite an outstanding bloom and contained a distinct tinge of purple towards the edges of the petals. Second was General Harrison, 'Leonard Messel', and third, Sir Giles Loder, with 'J. C. Williams' × 'Inchmery'; H. C., the Crown Estate Commissioners, 'Barbara Hillier'. Class 54 was for any four other than japonica varieties, and to find four good blooms from outside plants for this class is very difficult. The four competitors who submitted entries well deserved the awards. First prize went to Sir Giles Loder with 'Inspiration', reticulata 'Capt. Rawes', 'J. C. Williams' x 'Inchmery' and 'Donation'; second the Crown Estate Commissioners for 'Salutation', 'Barbara Hillier', 'Donation' and 'Leonard Messel'; third prize Mr. de Rothschild with 'Donation', 'Inspiration', reticulata wild form and 'J. C. Williams'.

Class 55 was for one bloom each of any twelve. This is a most difficult class but attracted five entries and the five groups, each of twelve flowers, provided the most outstanding displays of the Competition. Mr. Cutts was first with 'Drama Girl', 'Reg Ragland', 'Adolphe Audusson', 'Sultana', 'Tomorrow', 'Leonard Messel', 'Donation', 'Mrs. D. W. Davis', 'Southern Charm', 'Contessa Lavinia Maggi', 'Salutation', 'Wildwood'. Sir Giles Loder was second showing reticulata 'Capt. Rawes', 'Salutation', 'Little Bit', 'Hatsu-Zakura', 'Haku-Rakuten', 'Nagasaki', 'Mathotiana Rubra', 'Donckelarii', 'Altheaflora', 'Jupiter', 'Alba Simplex' and 'Lady Clare'. Mr. de Rothschild came third and his group contained fine specimens of 'Snow Goose' and 'Auguste Delfosse'. Mr. Strauss, who included a beautiful bloom of 'Debutante' in his selection, was awarded an H.C. Messrs. Waterer were Commended, having presented a fine varied group. This was the first display of blooms grown outside in a Camellia competition and in the general opinion, was indistinguishable from previous displays which were for greenhouse-protected flowers.

Section II which included Classes 61 to 78 was for sprays. There were no awards in three classes and in the rest the distribution of first prizes was as follows: Sir Giles Loder 9, the Crown Estate Commissioners 4, Sir Ralph Clarke 1 and Messrs. Waterer 1. Class 61 for *C. cuspidata*: out of five entries the Crown Estate

Commissioners were first, second was Sir Ralph Clarke and third Mrs. Preston. Class 62 was for any single japonica, and was won by Sir Giles Loder with 'Jupiter'. Second were Messrs. Waterer with 'Alba Simplex' and third Mrs. Preston, 'Apple Blossom'. Class 63 provided a quite remarkable exhibition of any semi-double japonica with ten entries. First was Sir Giles Loder with pink 'Lady McCulloch'; the foliage of this spray was perfect. I counted fourteen flowers in full bloom, six buds about to open and at least twelve unopened buds. The Crown Estate Commissioners were second, showing 'Lady de Saumerez', and Messrs. Waterer were third with 'Apollo'. The Crown Estate Commissioners were also awarded H.C. with 'Kouran Jura'. Mrs. Preston was commended with 'Lady Clare'. There were five entries in Class 64 for any anemone- or paeony-formed cultivar of japonica. Sir Giles Loder was first with 'Altheaflora', also third with 'Elegans', and H.C. with 'Eugene Lize'; Mrs. Paton was second with a fine spray of 'Elegans'. Class 65—Any rose-formed or formal double japonica— Sir Giles Loder was first and second with 'Coquetti' and 'Mathotiana Alba' respectively. Messrs. Waterer were third with 'Madame Le Bois'. Class 66 for any three varieties of japonica was won by the Crown Estate Commissioners showing 'Kouran Jura', 'Lady de Saumerez' and 'Frau Minna Seidel'. Mrs. Preston was second with 'Magnoliaeflora', 'Donckelarii' and a magnificent unnamed single red seedling. Sir Giles Loder came third with 'Lady McCulloch', 'Lady Clare', 'Adolphe Audusson'. Classes 67 and 68 were for reticulata wild form and reticulata 'Capt. Rawes'. Sir Giles Loder was the only competitor and was awarded a first prize in each class. Class 69 for C. reticulata, any double or semidouble other than 'Capt. Rawes', did not attract an entry. Class 70 for C. saluenensis had five entries. Sir Ralph Clarke was first, Sir Giles Loder was second and Sir George Jessel was third. In Class 71 Sir Giles Loder submitted the only entry, a spray of 'Heterophylla', without award; this class called for any species other than cuspidata, japonica, reticulata or saluenensis. Class 72 was for any single × williamsii. The Crown Estate Commissioners were first with 'St. Ewe', and Sir George Jessel was second with 'J. C. Williams'. Sir Giles Loder was awarded third prize for saluenensis × 'Alba Simplex'. Class 73 for 'Donation' attracted five entries and were all good sprays; first Crown Estate Commissioners, second Sir Giles Loder and third Sir Ralph Clarke. In Class 74 calling for a williamsii cultivar other than a single or 'Donation', Mr. Cutts presented a spray of 'Salutation' without

award. Class 75 was for 'Cornish Snow' and had three entries, first Sir Giles Loder, second Sir Ralph Clarke and third the Crown Estate Commissioners. There were three entries in Class 76 for any other hybrid of or descendant from C. saluenensis. Messrs. Waterer were first with an unnamed flower that was very like 'Inspiration'. Sir Giles Loder was second with 'Inspiration' and third with 'Salutation'. Class 77 for any three sprays found five entries. First Sir Giles Loder, showing 'Lady Clare', 'Inspiration', 'Donation'; second Sir Ralph Clarke, with 'Contessa Lavinia Maggi', 'Gloire de Nantes', 'Sylva', and third Messrs. Waterer. Class 78 was for any six, one spray of each; there were four entries. First was Sir Giles Loder with 'Jupiter', 'Rubescens Major', 'Nagasaki', 'Donation', 'Mathotiana Rubra' and 'Lady Clare'; second were Messrs. Waterer, and third was Sir Ralph Clarke showing 'Cornish Snow', C. saluenensis, 'Donation', 'Nigra', 'Salutation', 'Rubescens Major'. Mr. Cutts staged a nice group of 'Lady Vansittart', 'Coquetti', 'Mathotiana Rosea', 'Lady McCulloch', 'Imbricata' and an unnamed.

In my opinion this was the best display of sprays in a Camellia Competition with the exquisite specimens from Leonardslee predominant. The Spray section was a feature I missed in the American Camellia Shows and Competitions that I attended, as the American Shows stage only blooms. In Class 80 for a vase or bowl of Camellias, Mrs. M. E. McDonald once again was supreme with a beautifully arranged vase of her favourite rich dark red rose form of 'Margherita Coleoni'. The arrangement by the Dowager Duchess of Devonshire was second and that by Sir Giles Loder was third.

INTERNATIONAL CAMELLIA SOCIETY CONFERENCE 1965

By J. T. GALLAGHER (Bovingdon, Herts, England)

AFTER the recent ICS Conference at Brighton, there can be little doubt about the enthusiasm of both amateur and professional camellia growers in Great Britain. Over 140 members and their friends attended the two days of lectures, discussions and social events at the Grand Hotel, either on a full-time or on a day-

to-day basis.

The idea of a weekend conference originated a couple of years ago when I was lying in bed recovering from a virus infection. Charles Puddle, Secretary of the Society, had been investigating the possibility of visiting the United States to attend one of the American Camellia Society meetings and wrote to me for my opinion in view of the high cost of the trip. I suggested that before going off to America, it would be better if we got to know the people in this country first. This suggestion was put to our other members and led to our first conference at Lyndhurst in the New Forest last year. At that stage we had not considered the possibility of the conference becoming an annual event and it is fair to say that this year's conference was definitely by "popular request".

After the opening address on Friday evening, the conference started with a display of slides of new varieties and scenes from New Zealand, Australia and America. Most impressive were some of the slides of Mr. Les Jury's hybrids and Mr. Howard Asper's 'Narumi-Gata' and 'Buddha' crosses. Next followed an interesting lecture on camellia culture by Mr. F. P. Knight, V.M.H., Director of the Royal Horticultural Society Garden at Wisley, Surrey. Mr. Knight spent his early gardening days in Cornwall with the late J. C. Williams and was responsible for germinating and growing on the original Forrest introductions some thirty years ago. With so many examples of his art in Cornwall and Wisley we could hardly have asked for a more experienced propagator. Needless to say, the "brain trust" which followed was very popular and we looked unlikely to get to bed that night at all!

I am quite sure that the psychiatrists have a list of standard nightmares for conference organizers. On the Saturday morning I woke up to find one of these was now a reality. The skies had opened and it was pouring with rain. One or two cars failed to stand up to the wet and their passengers were taken by friends. We arrived at Leonardslee where Sir Giles and Lady Loder were waiting to show us their lovely garden. Lady Loder invited us all into her beautiful home and provided steaming hot cups of coffee before the tour. One tip I noticed was a telescope in Sir Giles's drawing room, which enabled him to view some of the beautiful tree magnolias in comfort. In spite of the rain everyone toured the garden, ending up in a large, new greenhouse planted with some of the best new American varieties. 'Betty Sheffield Supreme', 'Drama Girl', 'R. L. Wheeler', 'Mrs. D. W. Davis' really in wonderful flower. Outside the greenhouse one of our lady delegates was so overcome by the beauty of the flowers, that she stepped backwards into an ornamental pond. Fortunately she was not hurt and was fished out by other delegates using umbrellas and other implements to hand. To save time, we arranged to have a picnic lunch with hot drinks at a new secondary school at Haywards Heath. The governors of the school requested that one of our overseas delegates should plant a camellia in the grounds in memory of the occasion. With Dr. Wyman of the Arnold Arboretum doing the planting the success of the plant is guaranteed.

The County of Sussex has a wealth of beautiful gardens and as Stonehurst and Wakehurst Place are on opposite sides of the road to each other, we decided to visit both. The main collection of camellias at Stonehurst was started after Mr. and Mrs. Ralph Peer visited Mr. Strauss in 1947. Since then, regular importations have been made from America, Australia, Belgium, Holland and Portugal. Many of these plants were in flower under glass and extensive plantings have been made in the woodland garden and

around the house.

Mr. Geoffrey Wakefield demonstrated propagation and potting of camellias and explained and elaborated some of the points he has made in his recent book. The weather still held and Mr. Strauss invited the delegates to a delightful afternoon tea which was served on the terrace overlooking the garden. Like all the gardens we visited, Stonehurst was not only noted for its camellias, but has a very extensive collection of shrubs and trees and a major orchid collection.

Since Sir Henry Price died, Wakehurst Place has been given over

to the care of the Royal Botanic Gardens, Kew. Mr. Wallis, head gardener for over twenty years, rightly decided to let the delegates look for themselves as many knew the gardens already and made

little pilgrimages to their favourite plants.

Most impressive in this garden and at Leonardslee were the plants of C. 'Barbara Hillier'. Its elongated, pear-shaped pink flowers were very distinctive and of real garden merit. My own plant has performed very badly under glass and another plant outside Windsor which I have been watching, has also been disappointing. Perhaps so near London we are too cold to do this

reticulata hybrid full justice.

We had taken the precaution of arranging a banquet on the Saturday evening to sustain our delegates for more lectures and slides. The Earl and Countess of Rosse, Lady Clarke, Sir Giles and Lady Loder were guests of the Society, together with the head gardeners and their wives of the various gardens we were visiting. After proposing the toast to Her Majesty the Queen, Mr. Harold Hillier, Director of the Society, read a message from Professor Waterhouse, the Society's President. Sir Giles Loder then gave a talk about his American travels which he illustrated with some beautiful slides of their new varieties and plantings. There were no complaints of insomnia on the next morning, which was dry and sunny.

Our visit was to Borde Hill, the beautiful home of Sir Ralph and Lady Clarke. Apart from its great camellia interest, being the birthplace of C. 'Donation' and C. 'Salutation', the garden is remarkable for its collection of trees and shrubs. The first planting began in 1890 and from there on plants and seeds from all the major collections were added, which makes the garden now a sort of living horticultural history book-E. H. Wilson (China 1900), Farrer (Upper Burma 1919), Forrest (Upper Burma and Southwest China 1921-25) and Kingdon Ward (South-east Tibet and Upper Burma 1921-25), together with several interesting plants raised from seed collected by Comber in southern Chile and Tasmania. The original plant of 'Donation' is in a walled garden at the side of the house and looks remarkably well in spite of all the cuttings which have been taken during its lifetime. C. 'Salutation' is nearby against a wall, but although this plant is also flowering well it does not compare with a 15-foot-high plant at Windsor which again this year was smothered with blossoms perhaps even more than C. 'Donation'.

There was really too much to see in this garden for the time we had available and Lady Clarke threw open her house to the dele-





Photos: J. E. Downward

Fig. 54.—Rhododendron 'Saltwood', A.M. June 29, 1965. Exhibited by Major A. E. Hardy, Sandling Park, Hythe, Kent (see p. 166)

Fig. 55.—*Rhododendron* 'Nicholas', A.M. June 15, 1965. Exhibited by E. de Rothschild, Esq., Inchmery House, Exbury, Southampton (see p. 165)





Photos: J. E. Downward

Fig. 56 (left).—Rhododendron 'Goldfinger', A.M. April 13, 1965 as a cold greenhouse plant. Exhibited by Sir Giles Loder, Bt., Leonardslee, Horsham, Sussex (see p. 164)

Fig. 57 (right).—Rhododendron 'Sandling', A.M. June 15, 1965. Exhibited by Major A. E. Hardy, Sandling Park, Kent (see p. 166)

gates in which to eat their packed lunches, surrounded by a priceless collection of china and glass and very wonderful pictures. Reluctantly we tore ourselves away to journey on to Nymans.

At Nymans, Lord and Lady Rosse were waiting to greet us, and to conduct us around the gardens. As well as very many camellias, the magnolias were also in flower and judging from the amount of interest Dr. Wyman was taking in Magnolia 'Leonard Messel', which is a cross between M. stellata and M. kobus, I have a feeling that Americans will be hearing a lot more about this beautiful hybrid. C. 'Leonard Messel' was just in flower and even more interesting was a sister seedling from the same seed pod. This seedling has not been named or propagated, which is a mistake we hope will soon be rectified. It seems to be slightly darker in colour than C. 'Leonard Messel' and was covered solid with perfect blooms, perhaps the most spectacular sight we saw throughout the whole conference. With two such excellent plants it is surprising that more effort has not been made by hybridizers to repeat this cross with different reticulata and williamsii forms. The afternoon turned to rain and Lady Rosse invited us in to afternoon tea in front of a blazing log fire. The rooms had been most beautifully decorated with bowls of flowers out of the garden.

Our conference had come to its end and looking around this beautiful room with all our delegates saying their farewells, I was struck with the thought that the camellia had triumphed again in making it possible for all these people from so many different walks of life to join together in friendship to study this remarkable plant.

RHODODENDRONS AND CAMELLIAS WHICH HAVE RECEIVED AWARDS IN 1965

Camellia \times williamsii 'George Blanford', A.M. March 2, 1965. A hardy flowering plant; leaves variable, some typical of *C. japonica* 'Lady Clare' (one parent), $3\frac{1}{2}$ inches by 2 inches across; others typical of *C. saluenensis*, $2\frac{3}{4}$ inches by $1\frac{1}{10}$ inches across, apex attenuated. Flowers paeony-form, two rows of outer petals, centre of petaloids and a few stamens. Colour varying between pink and Tyrian Rose (H.C.C. 24/2); patchy, white flecking on the petaloids. Exhibited by F. Julian Williams, Esq., Caerhays Castle, Gorran, St. Austell, Cornwall (Fig. 33).

Rhododendron lacteum 'Blackhills', F.C.C. April 13, 1965. A hardy flowering plant; leaves 7 inches long, 3\frac{3}{4} inches wide, obovate, dull green above, thin, fawn indumentum below. Petiole 1\frac{1}{2} inches long. Truss 23 flowers, closely packed. Pedicel 1 inch long. Calyx minute. Corolla funnel-campanulate, 5-lobed, 2 inches long, 2\frac{1}{2} inches wide. Primrose Yellow (H.C.C. 601/2) without blotch or spots. Stamens 10, unequal, not protruding. Style longer than stamens and curved. Exhibited by S. F. Christie, Esq., Blackhills, by Elgin, Morayshire.

Rhododendron (leucaspis \times microleucum) 'Ptarmigan', F.C.C. April 13, 1965. A hardy flowering plant, suitable for the rock garden; habit, somewhat compact, dwarf, spreading. Plant 6 inches high. Leaves oblong, $\frac{2}{3}$ to 1 inch long, densely scaly beneath. Inflorescence, terminal cluster of several trusses, each truss 2- to 3-flowered; pedicel short. Calyx 5-lobed, lobes oblong. Corolla broadly funnel-shaped, white, 5-lobed, $\frac{1}{2}$ inch long, 1 inch wide. Stamens 10, unequal, protruding. Style straight, shorter than longest stamens, longer than shortest stamens. Exhibited by Messrs. E. H. M. Cox and P. A. Cox, Glendoick, Glencarse, Perth (Fig. 49).

Rhododendron schlippenbachii 'Prince Charming', F.C.C. May 4, 1965. A hardy flowering plant; flowers in loose clusters of fours or fives. Pedicel $\frac{3}{5}$ inch long, glutinous, hairy; calyx $\frac{3}{10}$ inch long, margins ciliate; corolla $3\frac{1}{2}$ inches across by $1\frac{3}{4}$ inches long; lobes

large $1\frac{2}{5}$ inches long by $1\frac{1}{10}$ inches across, colour Rhodamine Pink (H.C.C. 527/2) with some darker tingeing; upper lobes spotted deep crimson. Exhibited by Sir Giles Loder, Bt., Leonardslee, Horsham, Sussex (Frontispiece).

Rhododendron calendulaceum 'Burning Light', A.M. June 15, 1965. A hardy flowering plant; leaves $3\frac{4}{10}$ inches long, $2\frac{1}{10}$ inches wide, pale green. Flowers in a loose truss of about 6 blooms, $2\frac{1}{10}$ inches wide, $1\frac{6}{10}$ inches long, funnel-shaped, Chinese Coral (H.C.C. 614/1), throat Marigold Orange (H.C.C. 11/1). Exhibited by the Crown Estate Commissioners, The Great Park, Windsor, Berks (Fig. 41).

Rhododendron campanulatum 'Waxen Bell', A.M. April 13, 1965. A hardy flowering plant; leaves oblong-elliptic, 3 inches long, 1½ inches wide, lower surface covered by cinnamon-brown, felted indumentum. Petiole ½ inch long. Truss fairly loose containing 13 flowers. Pedicel 1¼ inches long, tinged red. Calyx minute, 5-lobed. Corolla funnel-campanulate, 1¼ inches long, 2 inches wide, the 5 lobes spreading, of rather waxy texture. Phlox Purple (H.C.C. 632/3) spotted Pansy Purple (H.C.C. 928). Stamens 10, unequal. Style longer than stamens, curved at tips. Exhibited by the Regius Keeper, Royal Botanic Garden, Edinburgh, 3.

Rhododendron (niveum ×?) 'Crarae', A.M. April 13, 1965. A hardy flowering plant; leaves obovate, 7 inches long and $2\frac{1}{2}$ inches wide, dull mid-green above, whitish mealy indumentum below. Petiole $1\frac{1}{4}$ inches long. Truss, compact, containing 23 flowers. Pedicel 1 inch long covered with white hairs. Calyx minute, covered with white hairs. Corolla 2 to $2\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, campanulate, 7 lobes. Orchid Purple (H.C.C. 31/2) striped and stained Orchid Purple (H.C.C. 31/1). Small blotch in throat Dahlia Purple (H.C.C. 931). Stamens 15, unequal. Style longer than stamens, bent at tip. Exhibited by Sir George I. Campbell of Succoth, Bt., Crarae Lodge, Inveraray, Argyll.

Rhododendron dictyotum 'Kathmandu', A.M. May 4, 1965. A hardy flowering plant; leaves $5\frac{7}{10}$ inches long by 2 inches across, narrowly elliptic, underside dense, persistent, cinnamon-brown tomentum; petiole 1 inch long. Truss 19-flowered, rounded, well packed; pedicel 1 inch long, mealy; calyx rudimentary; corolla openly campanulate, 2 inches long by $2\frac{3}{10}$ inches across, colour white with prominent crimson blotch and some crimson spotting on upper lobe. Exhibited by E. de Rothschild, Esq., Exbury, nr. Southampton (Fig. 59).

Rhododendron ('Lionel's Triumph' × Naomi grex) 'Elizabeth de Rothschild', A.M. May 24, 1965. A hardy flowering plant; leaves $6\frac{1}{2}$ inches long by $2\frac{1}{10}$ inches wide, elliptic, base auriculate, margin entire, above dark green, beneath glaucous green; petiole $1\frac{3}{10}$ inches long. Truss about 18-flowered, rounded, well packed; pedicel 2 inches long, glabrous; corolla $4\frac{1}{2}$ inches wide by $2\frac{7}{10}$ inches long, openly funnel-shaped, colour very pale yellow (near Primrose Yellow, H.C.C. 601/3), maroon spotting in throat; stamens white, anthers pale brown; style white, stigma green. Exhibited by E. de Rothschild, Esq., Exbury, nr. Southampton (Fig. 58).

Rhododendron (Parisienne grex) 'Goldfinger', A.M. April 13, 1965. A cold greenhouse plant; leaves $3\frac{1}{10}$ inches long by $1\frac{1}{2}$ inches across, dark olive green, margins ciliate, underside densely scaly; petiole $\frac{3}{5}$ inch long, densely scaly, ciliate. Truss 4-flowered, lax; pedicel $\frac{3}{5}$ inch long, curved, scaly; calyx leafy, ciliate; corolla $2\frac{1}{5}$ inches long and 3 inches across, campanulate, colour Primrose Yellow (H.C.C. 601/2) with faint orange blotch on upper lobe. Exhibited by Sir Giles Loder, Bt., Leonardslee, Horsham, Sussex (Fig. 56).

Rhododendron (discolor \times eriogynum) 'Hill Ayah', A.M. June 29, 1965. A hardy flowering plant; leaves $5\frac{1}{2}$ to $7\frac{1}{2}$ inches long by $2\frac{1}{3}$ inches wide; petiole $1\frac{1}{3}$ inches long, narrowly elliptic, dark green above, pale green beneath. Flowers in a compact truss of 8 to 11 blooms. Calyx green, $\frac{3}{5}$ inch wide; corolla funnel-shaped, 7-lobed, $1\frac{9}{10}$ inches long, $2\frac{4}{5}$ inches wide. Colour between Rose Madder (H.C.C. 23/2 and 23/1), throat spotted Rose Opal (H.C.C. 022), anthers pale brown, filaments pale pink, style greenish white. Buds before opening Cardinal Red (H.C.C. 822/1). Exhibited by Major E. W. M. Magor, C.M.G., O.B.E., Lamellen, St. Tudy, Cornwall (Fig. 52).

Rhododendron hirtipes 'Ita', A.M. April 13, 1965. A hardy flowering plant; leaves oblong, $3\frac{3}{4}$ inches long and 2 inches wide, shining green above, underside glabrous. Petiole $\frac{1}{2}$ inch, hairy. Truss loose, containing 3 to 5 flowers. Pedicel $\frac{3}{4}$ inch, glandular, glutinous. Calyx very small, ciliate. Corolla funnel-shaped, 5-lobed, $1\frac{1}{2}$ inches long and $2\frac{1}{2}$ inches wide. Phlox Pink (H.C.C. 625/3) stained and striped Phlox Pink (H.C.C. 625/1). Stamens 10, unequal, protruding. Style red, as long as longest stamens, bent at tip. Exhibited by Messrs. A. C. and J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire.

Rhododendron lindleyi 'Dame Edith Sitwell', A.M. April 13, 1965. A cool greenhouse plant; leaves $5\frac{1}{2}$ inches long by $2\frac{1}{2}$ inches across, underside lightly scaly; mid-rib scaly; petiole $\frac{1}{2}$ inch long, scaly. Truss 4- or 5-flowered, semi-drooping; pedicel $\frac{1}{2}$ inch long, scaly; calyx $\frac{1}{2}$ inch long by $\frac{3}{10}$ inches wide, pale green, ciliate; corolla $3\frac{1}{2}$ inches long by $4\frac{3}{10}$ inches across, tubular funnel-shaped, colour white with a pale pink tinge on a few flowers; upper lobe stained greenish-yellow at base. Exhibited by Geoffrey Gorer, Esq., Sunte House, Haywards Heath, Sussex (Fig. 16).

Rhododendron (falconeri \times niveum) 'Mecca', A.M. May 4, 1965. A hardy flowering plant; leaves $9\frac{1}{5}$ inches long by 4 inches wide, elliptic, underside pale mat-like indumentum; petiole $1\frac{1}{2}$ inches long, stout. Truss 42-flowered, rounded, tightly packed; pedicel 1 inch long, mealy; calyx rudimentary; corolla oblique-campanulate, $2\frac{1}{2}$ inches long by 2 inches across, colour white with a very light flush of Cyclamen Purple (H.C.C. 30/3), small deep purple stain in throat. Exhibited by Mrs. Douglas Gordon, Hethersett, Littleworth Cross, Seale, Surrey (Fig. 14).

Rhododendron meddianum 'Machrie', A.M. April 13, 1965. A hardy flowering plant; leaves ovate to ovate-oblong, cordate at base, matt green above, glabrous beneath, 5 inches long and 2\frac{3}{4} inches wide. Petiole 1 inch long. Truss moderately compact, containing 15 flowers. Pedicel 1 inch long. Calyx 5-lobed, almost similar in colour to the corolla. Corolla funnel-campanulate, 5-lobed, the lobes slightly reflexing, 1\frac{3}{4} inches long and 3\frac{1}{2} inches wide. Currant Red (H.C.C. 821/3). Stamens 10, unequal, protruding. Anthers dark brown. Style longer than anthers, curved. Exhibited by The National Trust for Scotland, Brodick Castle Gardens, Isle of Arran.

Rhododendron mucronulatum 'Cornell Pink', A.M. March 30, 1965. A hardy flowering plant; flowers usually in clusters of two's or three's widely funnel-shaped, 1½ inches across by 1 inch long; colour a bright shade of Phlox Pink (H.C.C. 625/3) with blending of lighter and darker shades of the same colour; on upper lobes some faint, pale orange spotting. Exhibited by the Director, Royal Botanic Gardens, Kew, Richmond, Surrey (Fig. 15).

Rhododendron 'Nicholas', A.M. June 15, 1965. A hardy flowering plant; leaves 6 inches long, 2 inches wide, oblanceolate-narrowly elliptic, dark green above, pale green beneath, petiole $\frac{9}{10}$ inch long. Flowers in a closely packed truss of some 19 blooms. Calyx

minute, pedicel $\frac{4}{5}$ inch long, corolla openly funnel-shaped, 5-lobed, 2 inches long, $3\frac{3}{10}$ inches wide, Petunia Purple (H.C.C. 32/1), paling towards the centre. The throat and the centre of the upper segment white, spotted green. Stamens 10, style long and curved, $1\frac{1}{2}$ times as long as stamens. Exhibited by Edmund de Rothschild, Esq., Inchmery House, Exbury, nr. Southampton (Fig. 55).

Rhododendron (Halcyone grex) 'Sandling', A.M. June 15, 1965. A hardy flowering plant; leaves 7 inches long, 1\frac{9}{10} inches wide, oblanceolate, dark green above, pale green beneath. Petiole 1\frac{3}{10} inches long. Flowers in closely packed truss of some 12 blooms. Calyx pale green, \frac{3}{10} inch wide. Corolla openly funnel-shaped, frilled, 2\frac{2}{10} inches long, 3\frac{5}{10} inches wide, Rhodamine Pink (H.C.C. 527/3), throat flushed amber with darker spotting; Rhodamine Pink (H.C.C. 527/2) on the reverse of the corolla. Stamens 10, anthers pale yellow, style curved and longer than stamens. Exhibited by Major A. E. Hardy, Sandling Park, Hythe, Kent (Fig. 57).

Rhododendron ('Lady Clementine Mitford' × griersonianum) 'Saltwood', A.M. June 29, 1965. A hardy flowering plant; leaves 6 inches long by $1\frac{1}{2}$ inches wide; petiole $1\frac{3}{10}$ inches long; dark green above, pale green beneath; narrowly elliptic. Flowers in loose trusses of about 8 or 9. Calyx minute; corolla 5- to 7-lobed, openly funnel-shaped, $2\frac{9}{10}$ inches long, $4\frac{3}{10}$ inches wide. Neyron Rose (H.C.C. 623/1) in colour, reverse Carmine Rose (H.C.C. 621). Anthers brown, filaments carmine, style $1\frac{1}{2}$ times as long as stamens. Exhibited by Major A. E. Hardy, Sandling Park, Hythe, Kent (Fig. 54).

Rhododendron (Lactcombei grex) 'Sir George Sansom', A.M. April 13, 1965. A hardy flowering plant; leaves $4\frac{3}{10}$ inches long by $2\frac{1}{5}$ inches wide, base auricled, pale green above with some mottling; petiole $1\frac{1}{2}$ inches long. Truss 15-flowered, tight, globular; pedicel 1 inch long; calyx rim-like; corolla $2\frac{1}{2}$ inches long by 3 inches wide, campanulate, colour pale yellow, prominently tinged pink; buds rosy pink. Exhibited by Geoffrey Gorer, Esq., Sunte House, Haywards Heath, Sussex.

Rhododendron uvarifolium 'Yangtze Bend', A.M. April 13, 1965. A hardy flowering plant; leaves oblanceolate, dull dark green above, whitish indumentum below, 9 inches long, $2\frac{1}{2}$ inches wide. Petiole $1\frac{1}{4}$ inches long marked with a grey "scurf". Truss

compact, containing 26 flowers. Pedicel 1½ inches long. Calyx minute, 5-lobed. Corolla funnel-campanulate, 5-lobed, 2 inches long and 2½ inches wide. Rose Pink (H.C.C. 427/3) spotted and blotched Indian Lake (H.C.C. 826/3). Stamens 10, unequal. Style longer than stamens, curved at tip. Exhibited by the Regius Keeper, Royal Botanic Garden, Edinburgh, 3.

Rhododendron (Carita grex × Hawk grex 'Crest') 'Charitas', P.C. May 24, 1965. Shown by E. de Rothschild, Esq., Inchmery House, Exbury, nr. Southampton.

Rhododendron ('General Sir John du Cane' × griffithianum) 'Shangri La', P.C. May 24, 1965. Shown by E. de Rothschild, Esq.

Rhododendron (Jalisco grex 'Eclipse' × Jalisco grex 'Goshawk') 'Tan Crossing', P.C. May 24, 165. Shown by the Crown Estate Commissioners, Windsor Great Park, Berks.

AWARDS TO RHODODENDRONS AFTER TRIAL AT WISLEY

THE Council of The Royal Horticultural Society has made the following awards to rhododendrons after trial at Wisley on the recommendation of the Rhododendron and Camellia Committee.

The number in brackets after the description of the cultivar (variety) was that under which it was grown in the trial.

WISLEY TRIALS, 1960

Hardy Hybrid Rhododendrons

Azor Sister. (Raised, introduced and sent by the late J. B. Stevenson, Tower Court, Ascot, Berks.) F.C.C. June 15, 1960. Plant 12 feet high, 13 feet spread, vigorous, fairly compact upright habit, very free flowering; leaves $6\frac{7}{10}$ inches long, 2 inches wide, medium to dark dull green. Flower truss 7 inches diameter, $4\frac{1}{2}$ inches deep, fairly compact, dome-shaped, nine flowers per truss; corolla $3\frac{1}{2}$ inches diameter, 3 inches long, funnel-shaped, margins crimped, Rhodamine Pink (H.C.C. 527/1), Turkey Red (H.C.C. 721) at base, speckling on upper petal at throat Currant Red (H.C.C. 821). Flowering from June 10, 1960. (330)

Frank Galsworthy. (Raised and introduced by the late A. Waterer; sent by Messrs. Walter C. Slocock Ltd., Goldsworth Nursery, Woking, Surrey.) A.M. June 2, 1960. Plant 5½ feet high, 9 feet spread, vigorous, fairly compact upright habit, very free-flowering; leaves 5½ to 6¾ inches long, 1¾ inches wide, medium to dark dull green. Flower truss 5 inches diameter, 4 inches deep, compact, globular-shaped, fifteen to twenty flowers per truss; corolla 2 to 2½ inches diameter, 2 inches long, funnel-shaped, margins entire, a colour near Garnet Lake (H.C.C. 828), spotting on upper petal very pale olive. Flowering from May 28, 1960. (715)

Goldsworth Crimson. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) A.M. May 10, 1960. Plant 9 feet high, 13 feet spread, vigorous, compact slightly spreading habit, very free-flowering; leaves 5 to 8 inches long, $1\frac{4}{5}$ to $2\frac{1}{2}$ inches wide, medium dull green. Flower truss 7 inches diameter, 5 inches deep, compact, globular-shaped, thirteen to sixteen flowers per truss; corolla 3 to

3\frac{3}{4} inches diameter, 2 to 2\frac{1}{5} inches long, funnel-shaped, margins entire, Crimson (H.C.C. 22/1), spotting on upper petal black.

Flowering from April 25, 1960. (749)

Ice Cream. (Raised, introduced and sent by Messrs, Walter C. Slocock Ltd.) A.M. June 2, 1960. Plant 5 feet high, 7½ feet spread, vigorous, fairly compact upright habit, free-flowering; leaves 41 to $7\frac{1}{2}$ inches long, $1\frac{7}{10}$ to $2\frac{1}{10}$ inches wide, medium dull green. Flower truss 71 inches diameter, 4 inches deep, fairly compact, domeshaped, twelve to fourteen flowers per truss; corolla 3½ to 3½ inches diameter, 23/5 to 24/5 inches long, funnel-shaped, margins entire, Camellia Rose (H.C.C. 622/3) with white throat, spotting on upper

petal pale olive. Flowering from May 29, 1960. (954)

James Burchett. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) A.M. June 15, 1960. Plant 10 feet high, 15 feet spread, vigorous, fairly spreading habit, very free-flowering; leaves 8 to 8\frac{3}{5} inches long, 2 to 2\frac{1}{2} inches wide, dark green. Flower truss 6 inches diameter, 4 inches deep, compact, globular-shaped, fifteen to seventeen flowers per truss; corolla $3\frac{1}{2}$ inches diameter, $2\frac{7}{10}$ inches long, funnel-shaped, margins entire, white with a very pale touch of pink at margins, speckling on upper petal at throat yellowishgreen, buds Rhodamine Pink (H.C.C. between 527/2 and 527/3). Flowering from June 7, 1960. (374)

Mrs. J. C. Williams. (Raised by the late A. Waterer and sent by Messrs. Knap Hill Nursery Ltd., Lower Knaphill, Woking, Surrey.) A.M. June 2, 1960. Plant 7½ feet high, 12 feet spread, vigorous, slightly spreading habit, very free-flowering; leaves 4½ to 5½ inches long, 1½ to 1½ inches wide, medium dull green. Flower truss 4½ to 5 inches diameter, 4½ inches deep, compact, globular-shaped, sixteen to nineteen flowers per truss; corolla 2 to 21 inches diameter, $1\frac{7}{10}$ to $1\frac{4}{5}$ inches long, funnel-shaped, margins entire, white, spotting on upper petal reddish-brown. Flowering from May 22,

1960. (383)

Flavour. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) H.C. June 2, 1960. Plant 41 feet high, 6 feet spread, vigorous, compact upright habit, very free-flowering; leaves 41 to 5 inches long, 1½ inches wide, medium dull green. Flower truss 5½ inches diameter, 3 to 31 inches deep, fairly lax, dome-shaped, eleven flowers per truss; corolla $2\frac{3}{10}$ to $2\frac{1}{2}$ inches diameter, $2\frac{3}{10}$ to 2½ inches long, campanulate-shaped, margins entire, a slightly darker shade of Maize Yellow (H.C.C. 607/3), Mimosa Yellow (H.C.C. 602/2) at throat, spotting on upper petal maroon. Flowering from May 26, 1960. (955)

Langworth. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) H.C. May 20, 1960. Plant $9\frac{1}{2}$ feet high, $15\frac{1}{2}$ feet spread, vigorous, spreading habit, very free-flowering; leaves 7 to 8 inches long, $2\frac{3}{10}$ to 3 inches wide, dark dull green. Flower truss 9 inches diameter, 7 inches deep, fairly lax, conical-shaped, sixteen flowers per truss; corolla 4 inches diameter, $2\frac{1}{2}$ to 3 inches long, funnel-shaped, margins slightly waved, white, streaked greenish-brown at throat, spotting on upper petal green. Flowering from May 14, 1960. (376)

Deciduous Azaleas

Clyde. (Raised and sent by the Royal Horticultural Society's Garden, Wisley, Ripley, Woking, Surrey.) H.C. May 20, 1960. Plant 4½ feet high, 6 feet spread, vigorous, spreading habit, very free-flowering; leaves 3½ to 4 inches long, 1½ inches wide, medium green. Flower truss 6 inches diameter, 3 inches deep, fairly compact, dome-shaped, twelve flowers per truss; corolla 3½ inches diameter, 3 inches long, funnel-shaped, margins crimped, white touched pink, heavy spotting on upper petal orange. Flowering from May 15, 1960. (157)

Dee. (Raised and sent by The Royal Horticultural Society's Garden.) H.C. June 2, 1960. Plant $4\frac{1}{2}$ feet high, 5 feet spread, vigorous, compact upright habit, free-flowering; leaves 4 inches long, $1\frac{1}{2}$ inches wide, medium glossy green. Flower truss $5\frac{1}{2}$ inches diameter, $3\frac{1}{2}$ inches deep, compact, globular-shaped, fourteen to seventeen flowers per truss; corolla 3 inches diameter, $2\frac{1}{2}$ inches long, funnel-shaped, margins entire, white with slight flush of pink on reverse of upper petal, spotting on upper petal orange-yellow.

Flowering from May 26, 1960. (147)

Golden Eagle. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) H.C. May 20, 1960. Plant 5½ feet high, 7 feet spread, vigorous, compact upright habit, very free-flowering; leaves 3½ to 4 inches long, 1¾ to 2 inches wide, bright glossy green. Flower truss 6 inches diameter, 3½ inches deep, fairly compact, dome-shaped, ten to twelve flowers per truss; corolla 3 inches diameter, 2¾ inches long, funnel-shaped, margins entire and dentate at apex, wide border of Nasturtium Red (H.C.C. 14/1) at margins, mid-rib a shade near Orpiment Orange (H.C.C. 10/2), blotch on upper petal Orpiment Orange (H.C.C. 10/1). Flowering from May 13, 1960. (805)

Mrs. Gomer Waterer (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) H.C. May 10, 1960. Plant 5 feet high, 7½

feet spread, vigorous, fairly spreading habit, very free-flowering; leaves 3 to 4 inches long, 1½ inches wide, medium glossy green. Flower truss $5\frac{1}{2}$ to 6 inches diameter, $3\frac{1}{2}$ inches deep, compact, dome-shaped, sixteen to seventeen flowers per truss; corolla 2½ to $2\frac{4}{5}$ inches diameter, $2\frac{1}{5}$ inches long, funnel-shaped, margins entire, white tinged Neyron Rose (H.C.C. 623/2), spotting on upper petal Lemon Yellow (H.C.C. 4), buds yellow tinged red. Flowering from

May 4, 1960. (754)

Ribble. (Raised and sent by The Royal Horticultural Society's Garden.) H.C. June 2, 1960. Plant 5 feet high, 5 feet spread, vigorous, compact upright habit, very free-flowering; leaves $3\frac{1}{5}$ to $3\frac{1}{2}$ inches long, 1½ inches wide, medium glossy green tinged brown. Flower truss 4½ to 5½ inches diameter, 3 inches deep, fairly compact, dome-shaped, thirteen flowers per truss; corolla 3½ inches diameter, 2½ inches long, funnel-shaped, margins frilled, a colour between Camellia Rose (H.C.C. 622/1) and Nevron Rose (H.C.C. 623/1), single upper petal bright orange. Flowering from May 24, 1960. (908)

Tyne. (Raised and sent by The Royal Horticultural Society's Garden.) H.C. May 20, 1960. Plant 6 feet high, 5 feet spread, vigorous, compact upright habit, very free-flowering; leaves 4 inches long, 1\frac{4}{5} inches wide, light to medium glossy green. Flower truss 5\frac{1}{2} inches diameter, 3½ inches deep, compact, globular-shaped, eleven flowers per truss; corolla 3½ inches diameter, 2½ inches long, funnel-shaped, margins entire, Carmine Rose (H.C.C. between 621 and 621/3), blotch on upper petal orange. Flowering from May 14,

1960. (190)

Waveney. (Raised and sent by The Royal Horticultural Society's Garden.) H.C. May 20, 1960. Plant 4½ feet high, 2½ feet spread, fairly vigorous, compact upright habit, free-flowering; leaves 4 to 5 inches long, $1\frac{1}{5}$ to $1\frac{1}{2}$ inches wide, medium glossy green tinged brown. Flower truss 4½ to 5½ inches diameter, 3 inches deep, compact, globular-shaped, twelve to eighteen flowers per truss; corolla 3½ inches diameter, 2½ inches long, funnel-shaped, margins waved, Buttercup Yellow (H.C.C. 5/2), blotch on upper petal Saffron Yellow (H.C.C. 7). Flowering from May 14, 1960. (894)

Evergreen Azaleas

Fedora. (Raised by Messrs. C. B. van Nes & Sons, and sent by Messrs. Knap Hill Nursery Ltd.) F.C.C. May 10, 1960. Plant 31 feet high, 7 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs; corolla $2\frac{1}{2}$ inches diameter, $1\frac{1}{10}$ inches long, funnel-shaped, Phlox Pink (H.C.C. 625/1), spotting on upper petal Cardinal Red (H.C.C. 822/3). Flowering from April 26, 1960.

(549)

Maxwellii. (Sent by Messrs. Knap Hill Nursery Ltd.) **A.M.** May 20, 1960. Plant $2\frac{3}{4}$ feet high, 6 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in threes; corolla $2\frac{1}{2}$ to $3\frac{1}{5}$ inches diameter, $2\frac{1}{5}$ inches long, funnel-shaped, Rose Bengal (H.C.C. 25/2), dark spotting on upper petal at throat. Flowering from May 10, 1960. (534)

Prins Bernhard. (Raised by Mr. A. Vuyk, introduced and sent by Messrs. Vuyk van Nes, Boskoop, Holland.) A.M. May 20, 1960. Described R.H.S. Journal, 85, p. 46. Flowering from May 8, 1960

(H.C. 1959). (124)

Purple Triumph. (Raised by Mr. A. Vuyk, introduced and sent by Messrs. Vuyk van Nes.) A.M. May 20, 1960. Described R.H.S. Journal, 85, p. 36. Flowering from May 8, 1960 (H.C. 1959). (128)

Vida Brown. (Raised by Mr. Charles E. Brown, introduced and sent by Messrs. D. Stewart & Son Ltd., Ferndown, Dorset.) **A.M.** June 2, 1960. Plant 13 inches high, 31 inches spread, vigorous, spreading habit, very free-flowering, flowers borne singly; corolla $1\frac{1}{2}$ to $1\frac{7}{10}$ inches diameter, $\frac{9}{10}$ to $1\frac{1}{10}$ inches long, hose-in-hose, a colour near Rose Madder (H.C.C. 23/2). Flowering from May 20, 1960. (769)

Little Beauty. (Raised by Mr. A. Vuyk, introduced and sent by Messrs. Vuyk van Nes.) H.C. May 20, 1960. Plant $2\frac{1}{4}$ feet high, $2\frac{1}{4}$ feet spread, vigorous, compact upright habit, very free-flowering, two to six flowers per truss; corolla $1\frac{4}{5}$ inches diameter, $1\frac{1}{5}$ inches long, funnel-shaped, a colour near Phlox Pink (H.C.C. 625/1). Flowering from May 8, 1960. (127)

Awards were also given to the following rhododendrons growing in The Royal Horticultural Society's collection of plants at Wisley.

Hardy Hybrid Rhododendron

Moonshine Crescent. (Raised at The Royal Horticultural Society's Garden.) **A.M.** May 10, 1960. Plant $4\frac{3}{4}$ feet high, $5\frac{1}{2}$ feet spread, vigorous, compact upright habit, very free-flowering; leaves $4\frac{1}{2}$ to 5 inches long, $1\frac{3}{3}$ inches wide, dark dull green. Flower truss 5 inches diameter, $2\frac{1}{2}$ inches deep, compact, globular to dome-shaped, fourteen to sixteen flowers per truss; corolla $2\frac{3}{10}$ inches diameter, $1\frac{1}{2}$ inches long, funnel-shaped, margins entire, Primrose Yellow (H.C.C. between 601/2 and 601/3).

Evergreen Azalea

Jitsugetsuse. H.C. June 15, 1960. Plant 13/4 feet high, 51/2 feet spread, vigorous, very spreading habit, free-flowering, flowers mainly borne singly with a few pairs; corolla $2\frac{1}{10}$ to $2\frac{2}{5}$ inches diameter, 17 inches long, funnel-shaped, Mallow Purple (H.C.C. 630/2), speckling on upper petal red.

WISLEY TRIALS, 1961

Hardy Hybrid Rhododendron

Furnivall's Daughter. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) F.C.C. May 5, 1961. Described R.H.S. Journal, 82, p. 445 (A.M. 1958). Flowering from April 21, 1961. (207)

Awards were also given to the following rhododendrons growing in The Royal Horticultural Society's collection of plants at Wisley.

Evergreen Rhododendrons

El Greco. (Raised at The Royal Horticultural Society's Garden.) A.M. May 5, 1961. Plant 5 feet high, 5\frac{3}{4} feet spread, vigorous, compact upright habit, very free-flowering; leaves $6\frac{1}{2}$ inches long, $2\frac{1}{2}$ inches wide, medium dull green. Flower truss 8 inches diameter, 4 inches deep, flat, ten flowers per truss; corolla 3½ inches diameter, 2½ inches long, funnel-shaped, margins entire and slightly crumpled, Saffron Yellow (H.C.C. 7/3) changing to Azalea Pink (H.C.C. 618/2) at margins with flush of Carmine Rose (H.C.C. 621/1).

Degas. (Raised at The Royal Horticultural Society's Garden.) H.C. May 5, 1961. Plant 3 feet high, 4½ feet spread, vigorous, compact upright habit, very free-flowering; leaves 3½ inches long, 1½ inches wide, dark dull green. Flower truss 6 inches diameter, 3 inches deep, compact, flat, nine flowers per truss; corolla 27 to 25 inches diameter, 2½ to 2½ inches long, campanulate-shaped, margins entire, Currant Red (H.C.C. 821), spotting on upper petals very dark red.

WISLEY TRIALS, 1962

Hardy Hybrid Rhododendrons

Langworth. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) A.M. June 7, 1962. Described above. Flowering

from May 29, 1962 (H.C. 1960). (376)

Mermaid. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) A.M. May 8, 1962. Plant 111 feet high, 15 feet spread, vigorous, upright habit, very free-flowering; leaves 5½ to 6½ inches long, 21 inches wide, fairly dark dull green. Flower truss 9 inches diameter, 6 inches deep, fairly compact, dome to conical-shaped, eight flowers per truss; corolla 4 inches diameter, 3 inches long, campanulate-shaped, margins slightly waved, Neyron Rose (H.C.C. 623/3) slightly touched Neyron Rose (H.C.C. 623/2) at margins. Flowering from May 2, 1962. (161)

Telstar. (Raised at The Royal Horticultural Society's Garden.) H.C. May 17, 1962. Plant 31 feet high, 4 feet spread, vigorous, compact upright habit, very free-flowering; leaves 5 to 6 inches long, 2 inches wide, dark glossy green. Flower truss 5½ inches diameter, 41 inches deep, compact, globular-shaped, thirteen flowers per truss; corolla 21 inches diameter, 2 inches long, funnel-shaped, Rose Madder (H.C.C. 23/2) becoming paler and almost white inside, upper throat Oxblood Red (H.C.C. 00823/3). Flowering from May 12, 1962. (171)

Champagne. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) H.C. June 7, 1962. Plant 6 feet high, 7 feet spread, vigorous, upright habit, free-flowering; leaves 61 inches long, 2 inches wide, dark dull green. Flower truss 6 inches diameter, 4 inches deep, compact, flattened dome-shaped, fourteen flowers per truss; corolla 3\frac{1}{5} inches diameter, 3\frac{1}{2} inches long, funnel-shaped, margins frilled, Shrimp Red (H.C.C. 616/3), throat Chinese Yellow

(H.C.C. 606/2). Flowering from June 3, 1962. (292)

Vanity. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) H.C. May 17, 1962. Plant 63 feet high, 82 feet spread, vigorous, compact upright habit, very free-flowering; leaves 6 to 7 inches long, 23 inches wide, fairly dark glossy green. Flower truss 7 inches diameter, 8 inches deep, compact, globular-shaped, eleven flowers per truss; corolla 4 inches diameter, 23 inches long, funnelshaped, margins slightly waved, white slightly edged Rose Madder (H.C.C. 23/2), top of throat very pale yellow with slight green spots. Flowering from May 15, 1962. (136)

Deciduous Azaleas

Humber. (Raised at The Royal Horticultural Society's Garden.) A.M. May 31, 1962. Plant 6 feet high, 8 feet spread, vigorous, slightly spreading habit, very free-flowering; leaves 3-7 inches long, 1½ inches wide, medium glossy green tinged brown. Flower truss 6½ inches diameter, 5 inches deep, compact, globular-shaped, fifteen flowers per truss; corolla 4 inches diameter, 3 inches long, fully expanded funnel-shaped, margins waved, Chrome Yellow (H.C.C. 605/1) edged Porcelain Rose (H.C.C. 620/1), patch on upper throat Saffron Yellow (H.C.C. 7/1). Flowering from May 24, 1962. (318)

Silver Slipper. (Raised by the late Lionel de Rothschild, introduced and sent by Messrs. John Waterer, Sons and Crisp Ltd., The Nurseries, Bagshot, Surrey.) A.M. June 7, 1962. Plant 4 feet high, 7 feet spread, vigorous, spreading habit, very free-flowering; leaves $3\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, medium glossy green tinged brown. Flower truss 6 inches diameter, 4 inches deep, compact, domeshaped, fifteen flowers per truss; corolla 3½ inches diameter, 4 inches long, funnel-shaped, margins finely dentate at tips, white very slightly tinged Azalea Pink (H.C.C 618/3), upper petals blotched Buttercup Yellow (H.C.C. 5/1). Flowering from May 31, 1962. (967)

Tyne. (Raised at The Royal Horticultural Society's Garden.) A.M. May 31, 1962. Described above. Flowering from May 25,

1962 (H.C. 1960). (190)

Whitethroat. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) A.M. May 31, 1962. Plant 4 feet high, 8 feet spread, vigorous, spreading habit, very free-flowering; leaves $2\frac{7}{10}$ inches long, 12 inches wide, light glossy green. Flower truss 4 inches diameter, 2½ inches deep, lax, flattened circular cluster, eight flowers per truss; corolla 11/2 inches diameter, 11/2 inches long, hose-inhose, slight very fine waves at margins, pure white. Flowering from

May 19, 1962 (H.C. 1957). (795)

Arun. (Raised at The Royal Horticultural Society's Garden.) H.C. June 7, 1962. Plant 5 feet high, 5 feet spread, vigorous, compact upright habit, very free-flowering; leaves 3³/₁₀ inches long, 1¹/₂ inches wide, medium to dark glossy green slightly tinged brown. Flower truss 4 inches diameter, 4 inches deep, compact, globularshaped, eleven flowers per truss; corolla 2½ inches diameter, 2 inches long, funnel-shaped, Geranium Lake (H.C.C. 20/2) overlaid Rose Opal (H.C.C. 022/1) on two upper and outer petals. Flowering from May 24, 1962. (319)

Hanny Felix. (Raised, introduced and sent by Messrs. Felix & Dykhuis Ltd., Boskoop, Holland.) H.C. June 7, 1962. Plant 4½ feet high, 6 feet spread, vigorous, compact upright habit, very free-flowering; leaves 3 inches long, 1½ inches wide, medium glossy green. Flower truss 5 inches diameter, 3 inches deep, compact, dome-shaped, ten flowers per truss; corolla 2½ inches diameter, 2¾ inches long, funnel-shaped, Carrot Red (H.C.C. 612/2), upper petals tipped Jasper Red (H.C.C. 018/1) and top petal blotched dark yellow. Flowering from May 22, 1962. (222)

Mersey. (Raised at The Royal Horticultural Society's Garden.) H.C. May 31, 1962. Plant 6 feet high, 6 feet spread, vigorous, compact upright habit, very free-flowering; leaves 4 inches long, 13/3 inches wide, light glossy green. Flower truss 5 inches diameter, 5 inches deep, compact, globular-shaped, twelve flowers per truss; corolla 4 inches diameter, 2½ inches long, funnel-shaped, margins waved, Camellia Rose (H.C.C. 622/1) overlaid Camellia Rose (H.C.C. 622), patch of Chinese Yellow (H.C.C. 606) on upper petal.

Flowering from May 21, 1962. (145)

Strawberry Ice. (Raised and introduced by the late Lionel de Rothschild; sent by Messrs. John Waterer, Sons and Crisp Ltd.) H.C. May 31, 1962. Plant 4 feet high, 4 feet spread, vigorous, compact upright habit, very free-flowering; leaves 4½ inches long, 1½ inches wide, light glossy green. Flower truss 5 inches diameter, 5 inches deep, compact, globular-shaped, twenty-three flowers per truss; corolla 2¾ inches diameter, 2 inches long, funnel-shaped, margins slightly waved, Chinese Coral (H.C.C. 614/3) overlaid Porcelain Rose (H.C.C. 620/1), upper throat Indian Yellow (H.C.C. 6). Flowering from May 22, 1962. (196)

Tamar. (Raised at the Royal Horticultural Society's Garden.) H.C. June 7, 1962. Plant 5\(^3_4\) feet high, 6 feet spread, vigorous, slightly spreading habit, very free-flowering; leaves 3 inches long, 1\(^1_2\) inches wide, medium dull green tinged brown. Flower truss 4 inches diameter, 4 inches deep, compact, globular-shaped, ten flowers per truss; corolla 2\(^1_2\) inches diameter, 1\(^1_2\) inches long, funnelshaped, margins waved, Chrome Yellow (H.C.C. 605), upper petal Saffron Yellow (H.C.C. 7) tinged Chinese Coral (H.C.C. 614).

Flowering from May 21, 1962. (150)

Evergreen Azaleas

Hopeful. (Entered in the trial by The Royal Horticultural Society's Garden.) A.M. May 17, 1962. Plant 2½ feet high, 4½ feet spread, vigorous, spreading habit, very free-flowering, flowers



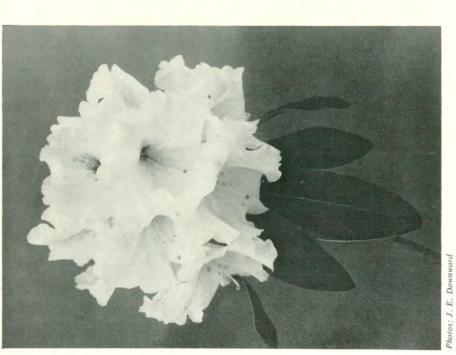


Fig. 58 (left).—Rhododendron 'Elizabeth de Rothschild', A.M. May 24, 1965. Exhibited by E. de Rothschild, Esq., Exbury, near Southampton (see p. 164)

Fig. 59 (right).—Rhododendron dictyotum 'Kathmandu', A.M. May 4, 1965. Exhibited by E. de Rothschild, Esq. (see p. 163)

borne in pairs and threes; corolla 2 inches diameter, 1\frac{2}{5} inches long, fully expanded funnel-shaped, a colour near Scarlet (H.C.C. 19/1).

Flowering from May 11, 1962 (H.C. 1957). (198)

Kathleen. (Sent by Messrs Knap Hill Nursery Ltd.) A.M. May 31, 1962. Plant 2½ feet high, 5 feet spread, vigorous, fairly compact upright habit, very free-flowering, flowers borne in pairs; corolla 1¾ inches diameter, 1¼ inches long, flattened funnel-shaped, a colour near Phlox Pink (H.C.C. 625/1), spotting at top of throat reddish-brown, stamens pink. Flowering from May 23, 1962 (H.C. 1957). (430)

Vuyk's Rosy Red. (Raised by Messrs. Vuyk van Nes, Boskoop, Holland; introduced and sent by Messrs. Walter C. Slocock Ltd.) A.M. May 31, 1962. Plant 1\(^3\)4 feet high, 3\(^1\)4 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs; corolla 2\(^3\)4 inches diameter, 1\(^1\)2 inches long, fully expanded funnel-shaped, Neyron Rose (H.C.C. 623), spotting on upper throat Cardinal Red

(H.C.C. 822). Flowering from May 28, 1962. (269)

Ferndown Beauty. (Raised by Mr. C. E. Brown, introduced and sent by Messrs. D. Stewart & Son Ltd.) H.C. June 7, 1962. Plant 1\(^3\) feet high, 4 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs; corolla 3 inches diameter, 1\(^1\) inches long, funnel-shaped, Rhodamine Purple (H.C.C. 29/2), spotting on upper throat Tyrian Purple (H.C.C. 727). Flowering from June 3, 1962. (123)

Malvatica. (Sent by Messrs. Knap Hill Nursery Ltd.) H.C. May 31, 1962. Plant 3 feet high, 8 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs or threes; corolla $2\frac{1}{2}$ inches diameter, $\frac{3}{4}$ inch long, flattened funnel-shaped, a colour near Phlox Purple (H.C.C. 632/1), spots at upper throat maroon.

Flowering from May 17, 1962. (492)

WISLEY TRIALS, 1963

Deciduous Azaleas

Narcissiflora Plena. (Raised by Louis van Houtte, and sent by Messrs. Sunningdale Nurseries, Windlesham, Surrey.) F.C.C. May 29, 1963. Plant 4 feet high, 5 feet spread, vigorous, upright compact habit, very free-flowering; leaves 3 inches long, $1\frac{1}{5}$ inches wide, light to dull green. Flower truss 4 inches diameter, $2\frac{1}{2}$ inches deep, fairly compact, globular-shaped, ten flowers per truss; corolla $1\frac{1}{2}$ inches diameter, $1\frac{1}{2}$ inches long, tubular, Straw Yellow (H.C.C.

604/1) deepening at centre of tube to Straw Yellow (H.C.C. 604) with faint pink tinge at margins. Flowering from May 25, 1963

(A.M. 1954). (852)

Silver Slipper. (Raised by the late Mr. Lionel de Rothschild, and sent by Messrs. John Waterer, Sons & Crisp Ltd.) F.C.C. June 5, 1963. Described above (p. 175). Flowering from May 30, 1963

(A.M. 1962). (967)

Annie Laurie. (Raised and sent by Mr. Leonard F. Frisbie, Puyallup, Washington, U.S.A., and introduced by Mr. Greg McKinnon, Sumner, Washington, U.S.A.) A.M. May 29, 1963. Plant 5\frac{1}{4} feet high, 4\frac{1}{2} feet spread, vigorous, upright compact habit, very free-flowering; leaves 3\frac{1}{3} inches long, 1\frac{1}{10} inches wide, light glossy green. Flower truss 4 inches diameter, 2 inches deep, compact, dome-shaped, sixteen flowers per truss; corolla 1\frac{4}{3} inches diameter, 1\frac{1}{2} inches long, tubular, Begonia (H.C.C. 619/3) overlaid Begonia (H.C.C. 619/1) changing at margins to Porcelain Rose (H.C.C. 620), centre of petals slightly flushed yellow. Flowering from May 26, 1963 (H.C. 1956). (819)

Hanny Felix. (Raised, introduced and sent by Messrs. Felix and Dykhuis Ltd., Boskoop, Holland.) A.M. May 29, 1963. Described

above. Flowering from May 25, 1963 (H.C. 1962). (222)

Kensey. (Raised at The Royal Horticultural Society's Garden.) A.M. May 29, 1963. Plant 5½ feet high, 3¾ feet spread, vigorous, slightly spreading habit, very free-flowering; leaves 4 inches long, 1¾ inches wide, medium glossy green. Flower truss 6 inches diameter, 3 inches deep, compact, globular-shaped, fourteen flowers per truss; corolla 3½ inches diameter, 2½ inches long, fully expanded funnel-shaped, Chrome Yellow (H.C.C. 605/2) very heavily overlaid shades of Shell Pink (H.C.C. 516) and Poppy Red (H.C.C. 16/2), edged Vermilion (H.C.C. 18/2) on margins of lower petals, blotch on lower centre petal Lemon Yellow (H.C.C. 4). Flowering from May 26, 1963. (302)

Mersey. (Raised at The Royal Horticultural Society's Garden.) A.M. May 29, 1963. Described above (p. 176). Flowering from

May 19, 1963 (H.C. 1962). (145)

Ribble. (Raised at The Royal Horticultural Society's Garden.) A.M. June 5, 1963. Described above (p. 171). Flowering from

June 1, 1963 (H.C. 1960). (908)

Strawberry Ice. (Raised and introduced by the late Mr. Lionel de Rothschild; sent by Messrs. John Waterer, Sons and Crisp Ltd.) A.M. May 29, 1963. Described above (p. 176). Flowering from May 25, 1963 (H.C. 1962). (196)

Sun Chariot. (Raised and introduced by the late Mr. Lionel de Rothschild; sent by Messrs. John Waterer, Sons and Crisp Ltd.) A.M. June 5, 1963. Plant 53 feet high, 7 feet spread, vigorous, upright compact habit, very free-flowering; leaves 51 inches long, 2 inches wide, light glossy green. Flower truss 5½ inches diameter, 43 inches deep, compact, globular-shaped, eleven flowers per truss; corolla 3\frac{3}{10} inches diameter, 2\frac{1}{2} inches long, fully expanded funnel-shaped, Chrome Yellow (H.C.C. between 605 and 605/1) very slightly overlaid Lemon Yellow (H.C.C. 4), blotch on upper petal Indian Yellow (H.C.C. 6). Flowering from May 28, 1963. (969)

Deben. (Raised at The Royal Horticultural Society's Garden.) H.C. May 29, 1963. Plant 43 feet high, 6 feet spread, vigorous, upright compact habit, very free-flowering; leaves 41 inches long, 13/8 inches wide, medium glossy green. Flower truss 51/2 inches diameter, 3½ inches deep, fairly compact, globular-shaped, thirteen flowers per truss; corolla 2½ inches diameter, 2½ inches long. funnel-shaped, Lemon Yellow (H.C.C. 4/2) overlaid Lemon Yellow (H.C.C. 4/1), lower petal nearly covered Indian Yellow

(H.C.C. 6). Flowering from May 26, 1963. (320)

Deveron. (Raised at The Royal Horticultural Society's Garden.) H.C. May 29, 1963. Plant 4½ feet high, 6½ feet spread, vigorous, spreading habit, very free-flowering; leaves 43 inches long, 13 inches wide, fairly dark glossy green much tinged light reddish brown. Flower truss 5½ inches diameter, 3½ inches deep, fairly compact, globular-shaped, thirteen flowers per truss; corolla 21/2 inches diameter, 2½ inches long, funnel-shaped, Chrome Yellow (H.C.C. 605/1) overlaid Lemon Yellow (H.C.C. 4/1) slightly tinged pink at margins, blotch on lower petal Buttercup Yellow (H.C.C. 5). Flowering from May 26, 1963. (316)

Nene. (Raised at The Royal Horticultural Society's Garden.) H.C. May 29, 1963. Plant 51 feet high, 31 feet spread, vigorous, upright compact habit, very free-flowering; leaves 3\frac{3}{8} inches long, 11 inches wide, medium glossy green. Flower truss 41 inches diameter, 4½ inches deep, compact, globular-shaped, fifteen flowers per truss; corolla 31 inches diameter, 2 inches long, fully expanded funnel-shaped, Venetian Pink (H.C.C. 420/3) overlaid Begonia (H.C.C. 619/3), blotch on lower petal Amber Yellow (H.C.C. 505).

Flowering from May 21, 1963. (324)

Rosella. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) H.C. June 5, 1963. Plant 64 feet high, 7 feet spread, vigorous, upright compact habit, very free-flowering; leaves 51/8

inches long, $1\frac{3}{4}$ inches wide, fairly dull green. Flower truss $5\frac{1}{4}$ inches diameter, 4 inches deep, compact, globular-shaped, fifteen flowers per truss; corolla $2\frac{2}{5}$ inches diameter, $2\frac{3}{10}$ inches long, funnel-shaped, Carmine Rose (H.C.C. 621/3) deepening to Camellia Rose (H.C.C. between 622 and 622/1), blotch on lower petal Lemon

Yellow (H.C.C. 4). Flowering from June 2, 1963. (997)

Tees. (Raised at The Royal Horticultural Society's Garden.) H.C. May 29, 1963. Plant 4\(^3\) feet high, 4\(^1\) feet spread, vigorous, upright compact habit, very free-flowering; leaves 2\(^1\) inches long, 1 inch wide, light glossy green. Flower truss 5 inches diameter, 3 inches deep, compact, globular-shaped, nine flowers per truss; corolla 3\(^1\) inches diameter, 2\(^1\) inches long, funnel-shaped, Porcelain Rose (H.C.C. 620/2) overlaid Porcelain Rose (H.C.C. between 620 and 620/1), small blotch Buttercup Yellow (H.C.C. 5). Flowering from May 26, 1963. (382)

WISLEY TRIALS, 1964

Hardy Hybrid Rhododendrons

Betty Wormald. 'George Hardy' × red garden hybrid. (Raised, introduced before 1922, and sent by Messrs. M. Koster & Son, Boskoop, Holland.) **F.C.C.** June 2, 1964. Plant $8\frac{1}{2}$ feet high, 9 feet spread, vigorous, upright habit, very free-flowering; leaves 6 inches long, $2\frac{2}{5}$ inches wide, dark dull green. Flower truss $5\frac{7}{10}$ inches diameter, $6\frac{1}{2}$ inches deep, crowded, globular-shaped, twelve flowers per truss; corolla $3\frac{1}{5}$ inches diameter, $2\frac{3}{10}$ inches long, funnelshaped, very pale pink at base gradually deepening to Tyrian Rose (H.C.C. between 24/1 and 24/2), splashes on upper petal purplish-red. Flowering from May 22, 1964 (A.M. 1935, after trial at Exbury). (172)

The Master. 'China' × 'Letty Edwards'. (Raised in 1936, introduced 1952, and sent by Messrs. Walter C. Slocock Ltd.) H.C. May 19, 1964. Plant $5\frac{1}{2}$ feet high, 7 feet spread, vigorous, upright habit, free-flowering; leaves $8\frac{1}{2}$ inches long, $2\frac{3}{4}$ inches wide, dark dull green. Flower truss 8 inches diameter, 7 inches deep, compact, dome-shaped, fourteen flowers per truss; corolla $3\frac{1}{5}$ inches diameter, $2\frac{7}{10}$ inches long, funnel-shaped, very pale pink with faint flush of Tyrian Rose (H.C.C. 24/3) and heavy flush of Tyrian Rose (H.C.C. between 24/2 and 24/3) on reverse, spotting at throat a colour near Purple Madder (H.C.C. 1028). Flowering from May

15, 1964. (182)

Weybridge. 'Sir Frederick Moore' × R. yakusimanum. (Raised at The Royal Horticultural Society's Garden. This cultivar has not yet been introduced.) H.C. May 7, 1964. Plant 2½ feet high, 3½ feet spread, vigorous, bushy compact habit, very free-flowering; leaves $4\frac{1}{5}$ inches long, $1\frac{3}{5}$ inches wide, dark glossy green. Flower truss $4\frac{1}{5}$ to 5 inches diameter, 4 to 4½ inches deep, compact, globular to slightly dome-shaped, twelve flowers per truss; corolla $2\frac{3}{10}$ inches diameter, 12/5 inches long, funnel-shaped, base white deepening to very pale pink with shading at margins and on reverse of a colour near Tyrian Rose (H.C.C. 24/3). Flowering from May 4, 1964. (43)

Evergreen Azalea

Naomi. kaempferi × oldhami. (Raised and introduced by the late Mr. Lionel de Rothschild about 1933; sent by Messrs. Walter C. Slocock Ltd.) H.C. June 2, 1964. Plant 20 inches high, 36 inches spread, vigorous, spreading habit, very free-flowering; leaves 21 inches long, $\frac{9}{10}$ inch wide, light green. Flower truss $3\frac{3}{10}$ inches diameter, 2½ inches deep, compact, globular-shaped, five flowers per truss; corolla 2\frac{1}{10} inches diameter, 1\frac{1}{2} inches long, fully expanded funnel-shaped, Dawn Pink (H.C.C. between 523 and 523/1) overlaid at margins Empire Rose (H.C.C. 0621), light flush on upper petals Carmine (H.C.C. 21/1), slight spotting on upper petals dull orange-red. Flowering from May 27, 1964. (93)

WISLEY TRIALS, 1965

Hardy Hybrid Rhododendrons

Nimbus. 'Snow Queen' × ? (Raised from a cross made in 1935, introduced 1952 and sent by Messrs. Knap Hill Nursery Ltd., Lower Knaphill, Woking, Surrey.) A.M. June 3, 1965. Plant 43 feet high, 51 feet spread, vigorous, upright habit, very free-flowering; leaves 7½ inches long, 3 inches wide, medium dull green. Flower truss 8 inches diameter, 5 inches deep, compact, globular-shaped, eight flowers per truss; corolla 4 inches diameter, 23 inches long, funnel-shaped, margins slightly waved, white, young florets very slightly flushed pink, bud cream flushed Dawn Pink (H.C.C. 523/3). Flowering from May 24, 1965. (101)

Seven Stars. 'Loderi Sir Joseph Hooker' × yakusimanum. (Raised and sent by the Crown Estate Commissioners, Windsor Great Park, Berks.; not yet generally introduced.) H.C. May 11, 1965. Plant 2½ feet high, 3½ feet spread, vigorous, upright habit,

very free-flowering; leaves $5\frac{3}{4}$ inches long, $2\frac{1}{4}$ inches wide, light to medium dull green. Flower truss $6\frac{1}{4}$ inches diameter, 6 inches deep, compact, dome-shaped, fifteen flowers per truss; corolla 2 inches diameter, $1\frac{3}{4}$ inches long, campanulate-shaped, margins waved and notched, white flushed Dawn Pink (H.C.C. 523/3) along centres of segments, buds a shade of Spiraea Red (H.C.C. 025/2). Flowering from May 7, 1965. (142)

Evergreen Azaleas

Amoena. (Originated in Japan, introduced by Fortune 1850 and sent by Messrs. Knap Hill Nursery Ltd.) A.M. May 11, 1965. Plant 4 feet high, $9\frac{1}{2}$ feet spread, vigorous, spreading habit, very free-flowering; leaves $2\frac{7}{16}$ inches long, $\frac{3}{16}$ inch wide, medium glossy green. Flower truss $1\frac{3}{4}$ inches diameter, $1\frac{1}{2}$ inches deep, compact, six flowers per truss; corolla $\frac{9}{10}$ inch diameter, $\frac{4}{5}$ inch long, hose-in-hose funnel-shaped, margins very slightly waved, Rhodamine Purple (H.C.C. 29/1) with outer base a bright shade of Rhodanite Red (H.C.C. 0022). Flowering from May 6, 1965. (15)

Hinodegiri. (Introduced by E. H. Wilson from Japan under the number 42 and sent by Messrs. Knap Hill Nursery Ltd.) A.M. May 11, 1965. Plant $2\frac{1}{4}$ feet high, $4\frac{1}{2}$ feet spread, vigorous, spreading habit, very free-flowering; leaves $\frac{3}{4}$ inch long, $\frac{1}{2}$ inch wide, medium glossy green. Flower truss $2\frac{1}{4}$ inches diameter, $1\frac{1}{4}$ inches deep, compact, dome to conical-shaped, three flowers per truss; corolla $1\frac{3}{10}$ inches diameter, 1 inch long, funnel-shaped, margins very slightly waved, China Rose (H.C.C. 024). Flowering from April 21, 1965. (89)

Double Beauty. No. 37. G.I. × 'Vuyk's Scarlet'. (Raised and sent by Messrs. Vuyk van Nes, Zijde 11, Boskoop, Holland. Not yet generally introduced.) H.C. May 19, 1965. Plant 1½ feet high, 3½ feet spread, vigorous, spreading habit, very free-flowering; leaves 1½ inches long, ½ inch wide, light glossy green. Flower truss 4 inches diameter, 2 inches deep, compact, dome-shaped, two flowers per truss; corolla 2½ inches diameter, 1 inch long, hose-inhose, funnel-shaped, margins slightly waved, a colour near China Rose (H.C.C. 624/1) flushed slightly darker colour at throat and around margins, speckling at throat dull crimson, wide streak of white along reverse of mid-rib. Flowering from May 10, 1965. (53)

ADDITIONS TO THE INTERNATIONAL RHODODENDRON REGISTER, 1964-65

(a = azalea) (az = azaleodendron)

Aladdin's Light cl. 'Aladdin' × 'Peach Lady'; (Ben Lancaster, Camas, Wash., U.S.A.); plant to 5 ft. in 10 years; lvs. to 9 in. long, 2½ in. wide, auriculatum-like texture; fls. in truss of 12, flaring bell-shaped, 6 petals, 23 in. deep to 4 in. wide, blend of shell-pink and delft rose with radiating lines of deeper colour; late flowering. cl. 'Day Dream' × 'Ice Cream'; (Mr. A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey, England); fls. in loose truss, tubular funnel-Anne George campanulate, salmon pink in bud, fading paler, with deeper markings. cl. [Glenn Dale]; ('Kagetsu' × indicum × (mucronatum × kaempferi)) × 'Tama-sugata'; (B. Y. Morrison, Apricot Honey Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen; 10-year-old plant about 30 in. tall, upright in habit; lvs. narrow, light green; fls. single, 2-3 per head, 2 to 2½ in. diameter, lobes overlapping, centres light, between Hermosa Pink and white, margins broad between Hermosa Pink and Geranium Pink (Ridgway), dots of blotch area almost Carmine on the colour margins, and Ochraceous Buff on light centre areas, pistil normal. To assure the light centres this plant, like all others, must reach a stage of growth with many flowering twigs. Artie Moon cl. Parentage unknown; (Clarence Loeb, Puyallup, Wash., U.S.A.); plant to 2 ft.; fls. in conical truss, to 5 in. wide, lavender with maroon blotch; mid-season. Avril cl. ciliatum × imperator; (Brian O. Mulligan, Seattle, Wash., U.S.A.); plant 18 in. tall, 28 in. wide, cushionlike; lvs. elliptic-lanceolate, up to 13 in. long, 3 in. broad, glabrous; fls. in trusses of 2 to 3, funnel-campanulate, to 2 in. across by 1½ in. long, Amaranth Rose (H.C.C. 550/1), deeper in bud; mid-April.
cl. 'Indiana' × 'Inca Gold'; (Ben Lancaster, Camas, Wash., U.S.A.); plant to 4 ft. in 10 years; lvs. glossy, to Aztec Gold 8 in. long, 3 in. wide, new growth coppery; fls. 18 in a 10in. rounded truss, bell-shaped, to 4 in. wide by 2 in. deep, clear Primrose Yellow (H.C.C. 601/2); early midseason. Baby Bonnet cl. 'Dido' × 'Rosy Morn'; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); lvs. to 4 in. long by 2 in. wide; fls. 12 to truss, open bellshaped, 8-lobed, peach colour, lighter at centre with dark fuchsia pink margins; late mid-season.

cl. [Glenn Dale]; ('Vittata Fortunei' × mucronatum) × (kaempferi × 'Shinnyo no Tsuki'); (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); Badinage evergreen, 4 ft. high and broad after 10 years; fls. double, 2½ to 3 in. with graduated petals, irregular white centre,

Pink (Ridgway).

broad margins of Deep Rose Pink washed with Alizarine

a Becky

cl. [Kurume]; sport of 'Hinodegiri'; (Vosters Nurseries and Greenhouses, Inc., South and Franklin Avenues, Secane, Pa. 19019, U.S.A.); fls. 3 to 4 per cluster, double to triple, 2 in. diameter, Eosine Pink (Ridgway Pl. I), blended with Deep Rose Pink (Pl. XII), depth colour Rose Doree (Pl. I), marks on throat Rose (Pl. XII). Has been grown and reproduced from cuttings through 10 generations; 30,000 plants propagated over period of 2½ years.

a Bergerette

cl. [Glenn Dale]; Seedling # 32666 × 'Musashino'; (B. Y. Morrison, Route I, Box 24, Pass Christian, Miss. 39571, U.S.A); evergreen, 4½ ft. tall after 10 years; fls. single, flat, 2 to 2½ in., tinted white, colour faint and not nameable, washed from edges of petals with varying degrees of a pink hue that is between La France Pink and Shrimp Pink, towards white, rather than in the pure tone, dots of blotch area not conspicuous but a little darker than Shrimp Pink (Ridgway).

Beverly Harvey

cl. Parentage unknown; (raised by Trequa Coen, introduced by Carl Fawcett, Tacoma, Wash., U.S.A.); Ivs. elliptic, to 6½ in. long by 2½ in. wide; fls. 12 to upright truss, funnel-shaped, 5-lobed, to 4½ in. wide by 2 in. deep, Persian Rose (H.C.C. 628/3 to 628/1); mid-May.

Blackhills

cl. Form of *R. lacteum*; (Mr. S. Christie, Blackhills House, by Elgin, Morayshire, Scotland); lvs. 7 in. long, $3\frac{3}{4}$ in. wide, obovate, with thin fawn indumentum below; fls. 23 in well-packed truss, funnel-campanulate, 5-lobed, 2 in. long, $2\frac{1}{2}$ in. broad, Primrose Yellow (H.C.C. 601/2) without blotch or spots. F.C.C. (R.H.S.) 1965.

a Bouffant

cl. [Glenn Dale]; 'Dream' (mucronatum × simsii pink clone) × 'Gunrei'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen; 10-year-old plant 36 in. tall and wide; lvs. abundant, narrow, and somewhat yellow-green; fls. single, 2 to 2½ in. diameter, 2 to 3 per head, with good lobes and somewhat ruffled, not frilled margins, colour deepest in throat, margins almost white, shading inwards to Pale Amaranth Pink to Deep Rose Pink in very centre, dots of blotch area small but distinct, Tyrian Pink (Ridgway), very floriferous.

a Bourdon

very intereus.

(I. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × ('Pluto' (an old "Southern Indica'')); (B. Y. Morrison, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen to evergreen, 4 ft. tall and broad after 10 years; flowers early, double, 1½ to 1½ in., 9 to 12 petals, between Amaranth Purple and Pomegranate Purple, dots on upper petals coming from blotch area Dahlia Purple (Ridgway), pistil usually present and sometimes a few stamens; in Mr. Morrison's garden shows a distinct tendency to flower in autumn and is used as an accent plant in landscape work.

a Bride's Bouquet

cl. [Glenn Dale]; ('Warai-gishi' × 'Kagetsu') × 'Rōgetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, foliage dark green, 'Macrantha'-type, but ends more rounded, habit somewhat columnar; fls. double, about 2 to 2½ in. diameter, the 15 to 20 petals are graduated in size and create a gardenia-like effect, pure white with no sign of any spotting and no sign of any sporting to colour, pistil normal but only an occasional stamen or trace of anther. This clone is early to flower among its kin and in mid-May in Mississippi.

- ADDITIONS—INTERNATIONAL RHODODENDRON REGISTER 185 cl. A form of *R. calendulaceum*; (Crown Estate Commissioners, The Great Park, Windsor, Berks.); Ivs. $3\frac{1}{2}$ in. long, $2\frac{1}{10}$ in. wide; fls. in loose truss of about 6 blooms, $2\frac{1}{2}$ in. wide, $1\frac{6}{10}$ in. long, funnel-shaped, Chinese Coral (H.C.C. 614/1), throat Marigold Orange (H.C.C. 11/1). A.M. (R.H.S.) 1965. Burning Light cl. carolinianum × saluenense; (Mr. and Mrs. James Caperci, Rainier Mt. Alpine Gardens, Seattle, Wash., U.S.A.); spreading plant to 29 in. high by 41 in. across Carousel in 20 years; lvs. very scaly beneath, elliptic with cuneate base, to 1½ in. long by 7 in. wide; fls. 10 to truss, 5-lobed, to 1 in. wide, lavender pink with spotted throat, calyx and pedicels slightly pubescent. cl. [Glenn Dale]. ('Vittata Fortunei' × 'Warai-gishi) × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen to ever-Cayenne green, 4 ft. tall and broad after 10 years; fls. early, double, $1\frac{1}{2}$ to $1\frac{3}{4}$ in., 12 to 16 petals very pointed, somewhat shovel-shaped, Rose Doree, dots on upper petals Tyrian Rose (Ridgway), unopened buds carry a much darker hue, almost Carmine. Charitas cl. 'Carita' × 'Crest'; (Edmund de Rothschild, Exbury, Southampton, Hants.); fls. in well-built truss, large open flat, pale yellow. cl. 'Letty Edwards' 2 hybrid; (A. Bramley, Perrins Creek Charles Begg Road, Kallista, Victoria, Australia); fls. Tyrian Rose (H.C.C. 24/3) fading paler into the centre. cl. [Glenn Dale]; 'Troubadour' × # 158057; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; fls. single, 2½ to 2¾ in. Coral Ace diameter, freely produced, white centre with variable margins of a colour brighter than Old Rose (Ridgway), dots of blotch Eugenia Red on white ground but Tyrian Cordy Wagner
 - cl. 'Goldsworth Orange' × 'Loderi King George'; (Lester E. Brandt, Route 5, Box 542, Tacoma, Wash. 98423, U.S.A.); Ivs. 10 in. long, 3 in. wide; fls. 8 to 9 in truss, 3 in. long, 5 in. diameter, Coral Pink (H.C.C. 619/2) at edge of petals, prominent rays of Burnt Orange (H.C.C. 14/1) radiating from throat, flushed Amber Yellow (H.C.C. 505/1).
- cl. Parentage unknown; (B. Y. Morrison, Pass Christian, Crescendo Miss. 39571, U.S.A.); evergreen; late flowering, double, 10 to 16 petals, camellia type with petals well imbricated, between Scarlet and Peach Red (Ridgway).
- Dame Edith Sitwell cl. A form of R. lindleyi; (Geoffrey Gorer, Sunte House, Haywards Heath, Sussex); cool greenhouse plant; lvs. $5\frac{1}{2}$ in. long, $2\frac{1}{2}$ in. across, slightly scaly below; fls. 4 to 5, semi-drooping, calyx ½ in. long, ciliate, corolla 3½ in. long, almost 4½ in. across, tubular-funnel-shaped, white with pale pink tinge on a few flowers, upper lobe stained greenish-yellow at base. A.M. (R.H.S.) 1965.
- cl. carolinianum × saluenense; (Mr. and Mrs. James Caperci, Rainier Mt. Alpine Gardens, Seattle, Wash., Debijo U.S.A.); upright spreading shrub, 20 in. high by 30 in. across in 15 years; lvs. ovate, base cuneate, slightly scaly below, to 2 in. long by \(\frac{3}{4} \) in. wide; fls. 7 to 8 per truss, funnel-campanulate, 1 in. wide, lavender purple,
- upper throat spotted brown.
 cl. Seedling of *R. taggianum*; (named and introduced by Dr. and Mrs. P. J. Bowman, Fort Bragg, California, Del James

U.S.A.; received from Mr. Del James in 1949, Mr. James having received it as a scion from England in 1947); plant straggly to 8 ft. in 10 years; fls. in loose truss of 2 to 5, very fragrant, funnel-campanulate, broad tube with basal pouches, $3\frac{1}{2}$ in. long by $3\frac{1}{2}$ in. broad, white with chrome yellow blotch in throat, rose pink in bud, sepals large foliaceous.

- a Double Beauty
- cl. [Vuykiana]; unnamed double-flowered seedling No. 37. G.I.× 'Vuyk's Scarlet'; (Messrs. Vuyk van Nes, Zijde 11, Boskoop, Holland); plant 16 in. high, 39 in. spread, free flowering; lvs. 1½ in. long, ½ in. wide, light glossy green; fls. 2 per dome-shaped truss, corolla 2½ in. diameter, 1 in. long, funnel-shaped, hose-in-hose, near China Rose (H.C.C. 024/1) flushed slightly darker colour towards throat and round extreme margins, speckling at throat dull crimson, wide streak of white along reverse of midrib; flowering from May 10, 1965. H.C. (Wisley Trials) 1965.

Elizabeth de Rothschild

cl. 'Lionel's Triumph' × 'Naomi' seedling; (E. de Rothschild, Exbury, nr. Southampton, Hants.); lvs. $6\frac{1}{2}$ in. long by $2\frac{1}{10}$ in. wide, elliptic, auriculate at base, glaucous green below; fls. about 18 per rounded, well-packed truss, corolla open funnel-shaped, $4\frac{1}{2}$ in. wide, $2\frac{3}{4}$ in. long, near Primrose Yellow (H.C.C. 601/3) spotted margon in throat $\frac{1}{2}$ M. (R.H.S.) 1965

a Encore

spotted maroon in throat. A.M. (R.H.S.) 1965.
cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 3\forall ft. tall, 4 ft. broad after 10 years; late flowering, double, 2\forall to 3 in. diameter, 14 to 18 petals, Rose (Ridgway), few dots not conspicuous but flowers appearing to have an undertone of yellow.

a Extravaganza

cl. [Glenn Dale]; Seedling # 32629 × 'Tama-sugata'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen, particularly in dry season, and with conspicuous autumn flowering in the south in U.S.A.; 10-year-old plant 4½ ft. high and about 3 ft. broad; fls. single, 3½ to 3½ in. diameter, with widely overlapping petals and rather flat carriage, white ground heavily striped, flaked and dotted with Tyrian Pink (Ridgway), no two flowers alike, an occasional sector of same, dots of blotch area small, heavy and distinct, Amaranth Purple (Ridgway).

a Fire Magic

cl. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant 4 to 4½ ft. tall, rather columnar in habit and very free flowering from top to bottom; fls. early, double, 1½ to 1½ in. diameter, 16 to 22 petals narrow and pointed, Rose Doree (Ridgway) and the dots Spectrum Red (Ridgway); pistil usually present, stamens rarely.

First Love

Red (Ridgway); pistil usually present, stamens rarely.
cl. oreotrephes × 'Royal Flush'; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); lvs. to 2½ in. long by 1 in. wide; fls. 8 to truss, pink with maroon eye; mid-season.

a Folksong

cl. [Glenn Dale]; Seedling; 36/45 × 'Shikunō'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant 2½ ft. talland broad; fls. single, 2 to 2¾ in. diameter, petals overlapping, white with heavy and showy blotch of sharply divided dots of a hue between Light Jasper Red and Jasper Pink (Ridg-

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way); there is a faint tinting at times on the white ground and a rare stripe of a hue between Rose and Old Rose

(Ridgway).

a Friendship cl. [Gle Mor

cl. [Glenn Dale]; 'Kagetsu' × 'Copperman'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; fls. single, 2\frac{1}{2} to 3 in. diameter, petals overlapping, Rose (Ridgway), with dots in blotch area only a little darker and showing merely as an intensification of the self colour; most striking when planted in mass; mid-season to late flowering.

a Garnet Royal

cl. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant 4 ft. tall and broad; fls. double, 1½ to 1½ in. diameter, 16 to 20 petals, Pomegranate Purple (Ridgway) toning to Acajou Red (Ridgway), bases of petals lighter; carries in garden effect as Bordeaux (Ridgway); the darkest in the series of early-flowering doubles.

Glad Tidings

cl. 'China' × williamsianum; (Ben Lancaster, Camas, Wash., U.S.A.); plant 4 ft. tall in 10 years; lvs. to 6 in. long by 2½ in. wide, cordate; fls. 12 to upright truss, 6-petalled, to 4 in. wide by 2½ in. deep, blend of cream and pink, yellow throat with red flare at base; mid-season.

Golden Pheasant

cl. 'Day Dream' × 'Margaret Dunn'; (Lester E. Brandt, Tacoma, Wash., U.S.A.; cross made 1946, named 1964); plant frozen to ground in 1955, recovered and first bloomed 1962 and again in 1964, now 5 ft. high; fls. 4½ in. diameter, flat, in 8-in. truss, Aureolin (H.C.C. 3), blotch in throat Orange (H.C.C. 12).

Goldfinger

cl. burmanicum × valentinianum; (Sir Giles Loder, Leonardslee, Horsham, Sussex); lvs. $3\frac{1}{10}$ in. long, $1\frac{1}{2}$ in. broad, densely scaly below; fls. 4 to the truss, lax; calyx leafy ciliate; corolla $2\frac{1}{3}$ in. long, 3 in. across, campanulate, Primrose Yellow (H.C.C. 601/2) with faint orange blotch on upper lobe. A.M. (R.H.S.) 1965.

Gratitude

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant 14 in. with spread of 24 in., type of growth as in 'Balsaminae-flora' but more vigorous; late flowering, double, 10 to 15 petals imbricated but more like a paeony type camellia bloom, Deep Rose Pink (Ridgway) with few dots of Tyrian Pink deep down near base of petals.

a Habenera

cl. [Glenn Dale]; (indicum—orange clone × 'Hatsushima') × 'Tama-sugata'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant not more than 4 ft., twiggy, and when once twig patterns are established, flowering is as heavy as in a Kurume clone; fls. single, 2 to 2\frac{1}{2} in. diameter, irregular white centre with margins of Tyrian Pink, blotch area conspicuous with dots of Tyrian Rose (Ridgway).

a Hazle Smith

cl. 'Corona' × occidentale; (Vernon Wyatt, Union, Wash., U.S.A.); plant 5 ft. high by 5 ft. across in 14 years, rounded, semi-compact; lvs. to 4 in. long by 1½ in. broad, twisted; fls. 16 to 18 in upright truss, funnel-campanulate, to 2 in. wide, white with large blotch of Chrysanthemum Crimson (H.C.C. 824/3); late May.

a Hearthglow

Chrysanthenum Crimson (H.C.C. 824/3); late May.
cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 4 ft. tall and broad after 10 years;

a Heigho

- late flowering: fls. double, 10 to 15 petals, imbricated. Rose Doree (Ridgway) flushed Scarlet from centre.
- cl. [Glenn Dale]; Seedling # 32629 × 'Tama-sugata'; B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); a sister seedling to 'Extravaganza'; semi-evergreen, especially in dry seasons; fls. single, of fine circular form with overlapping lobes, Rose with faintly darker tinting towards margin and a conspicuous blotch of heavy patterned distinct dots of Tyrian Rose tending towards Amaranth Purple and extending half way across upper two lateral lobes (Ridgway); distinct from the self coloured sports which sometimes show on the sister seedling; it is not a propagation from such.

Heirloom

cl. [Glenn Dale]; 'Kagestsu' × seedling 32666 (indicum × 'Hazel Dawson'); (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen; 10-year-old plant 4 ft. high; fls. single, 3 in. diameter, centre white, margins between Tyrian Pink and Mallow Purple (Ridgway), dots in blotch area conspicuous, brownish towards Rhodamine Purple when they overlap on the coloured border of

Hill Ayah

the upper lobes. cl. discolor × eriogynum; (raised by the late Mr. E. J. P. Magor, introduced by Major E. W. M. Magor, Lamellen, St. Tudy, Cornwall, England); lvs. 5½ to 7½ in. long, 2½ in. broad, narrow elliptic, pale green below; fls. 8 to 11 in compact truss; calyx green, $\frac{3}{5}$ in. wide; corolla funnel-shaped, 7-lobed, almost 2 in. long and 3 in. wide, between Rose Madder (H.C.C. 23/2 and 23/1), throat spotted Rose Opal (H.C.C. 022), buds Cardinal Red (H.C.C. 822/1), A.M. (R.H.S.) 1965.

Hino Red

cl. Seedling from 'Hino Crimson'; (H. M. Peters, Boskoop); fls. hose-in-hose, 13 in. diameter, Carmine (H.C.C. 21/1); A.M. (Boskoop) 1963. Name first published in Year Book 1963, Exp. Stat. Nurs., Boskoop.

Ita

cl. Grown from seeds of Ludlow, Sherriff and Taylor 3624 of R. hirtipes; (A. C. and J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire, Scotland); lvs. oblong, 33 in. long by 2 in. wide, glabrous below, petiole hairy; fls. 3 to 5 in loose truss; pedicels \(\frac{3}{4}\) in. long, glandular, glutinous; calyx ciliate; corolla funnel-shaped, 5-lobed, 1\(\frac{1}{2}\) in. long and 2\(\frac{1}{2}\) in. wide, Phlox Pink (H.C.C. 625/3) stained and striped Phlox Pink (H.C.C. 625/1). A.M. (R.H.S.) 1965.

Ivan Anderson

cl. [Glenn Dale]; ('Warai-gishi' × 'Hō-raku') × 'Kōkoku'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 7-year-old plant 21 ft. tall; fls. double, petals of graduated sizes, 10 to 15, smaller towards centre and sometimes with a little petaloidy, 2½ to 2¾ in. diameter, irregular white centre, broad margins of Tyrian Rose tending towards Amaranth Purple (Ridgway).

John Skrentny

cl. Selection of R. arboreum; (Ben Lancaster, Camas, Wash., U.S.A., from seeds collected in Darjeeling by John Skrentny); plant to 5 ft. in 10 years; lvs. oblong lanceolate, light fawn indumentum below, to 8 in. long by 13 in. wide; fls. 15 to 18 in round tight truss, clear cherry red, campanulate, to 2 in. wide by 2 in. deep; mid-April.

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Kathmandu cl. S

cl. Seedling of R. dryophyllum; (Lionel de Rothschild, Exbury, nr. Southampton, Hants.); Ivs. 5½ in. long, 2 in. broad, narrowly elliptic, persistent dense cinnamon-brown indumentum below; fls. up to 19 in round well-packed truss, open campanulate, 2 in. long, 2½ in across, white with prominent crimson blotch and some crimson spotting on upper lobe. A.M. (R.H.S.) 1965.

a Keepsake

cl. [Glenn Dale]; 'Kagetsu' × seedling 32666 (indicum × 'Hazel Dawson'); (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant about 4½ ft. high and 3 ft. broad; fls. late mid-season, single, 2½ to 3½ in. diameter, base white, in a somewhat starry pattern, margins between Mallow Purple and Tyrian Pink (Ridgway), the pink being the more conspicuous colour, dots in blotch area conspicuous and showing slightly brownish on the white ground.

Kim

cl. campylogynum × campylogynum var. cremastum; (Mr. and Mrs. James Caperci, Rainier Mt. Alpine Gardens, Seattle, Wash., U.S.A.); spreading plant to 8 in. high by 10 in. wide in 7 years; Ivs. to 1 in. long by ½ in. wide, obovate-elliptic; fls. 2 to 4 per truss, tubular-campanulate, ¾ in. wide by ¾ in. long, pink fading to yellow; calyx bright green, ½ in. long, slightly pubescent; new growth slightly pubescent.

a Largesse

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; 10-year-old plant 4 ft. tall and broad; fls. late, double, 15 to 20 petals, somewhat loose in form, 2¾ in. diameter, Deep Rose Pink with a few dots of Rose Red (Ridgway) deep down on the bases of the upper petals.

Lartag

cl. Hybrid of taggianum; (named and introduced by Dr. and Mrs. P. J. Bowman, Fort Bragg, California, U.S.A. and secured from H. L. Larson of Tacoma); grown for many years in the Pacific Northwest as R. taggianum; very floriferous spreading and drooping bush, to 6 ft. in 10 years; fls. funnel-shaped, narrow tube, to 3 in. across and 3 in. long, rose pink in bud, opening to pure white with small yellow blotch in throat, lobes broad; calyx ½ in. long, narrow sepals ciliated.

Leilie

cl. 'Jaipur' × 'May Day'; (Lester E. Brandt, Tacoma, Wash. 98423, U.S.A.); cross made in 1949; plant now 2 ft. by 3 ft., compact; lvs. 7 in. long, 1½ in. wide, heavy brown indumentum below; fls. 9 to truss, 2½ in. wide, 2½ in. long, Orient Red (H.C.C. 819/2); calyx 1½ in. long.

az Lilian Harvey

cl. racemosum \$\pop\$ × 'Hatsugiri'; (raised by W. Hardijzer, Boskoop, introduced by Fa. J. van Gelderen, Boskoop); fls. 3 to 4 in compact pseudo-terminal truss, funnel-shaped, \$\frac{3}{4}\$ in. diameter, white tinged with pink (Amaranth Rose, H.C.C. 530/3).

Little Minx

shaped, \(\frac{1}{2}\) in. diameter, white tinged with pink (Amaranth Rose, H.C.C. 530/3).

cl. haematodes \(\times\) 'Jock'; (Vernon Wyatt, Union, Wash., U.S.A.); plant 2 in. high by 6 in. wide in 10 years, flat; lvs. to 2 in. long by 1 in. wide, ovate; fls. 6 in loose truss, funnel-shaped, to 1\(\frac{1}{2}\) in. wide, Tyrian Rose (H.C.C. 24); early May.

Loeb's Moonlight

cl. Parentage unknown; (Clarence Loeb, Puyallup, Wash., U.S.A.); lvs. to 7 in. long; fls. in conical truss, up to 6 in. wide, rosy orchid with old rose blotches; mid-May.

a Lost Chord

cl. [Glenn Dale]; 'Dream' × 'Luna' (mucronatum × simsii pink clone) × (kaempferi × 'Shinnyo no Tsuki');

(B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen, 15-year-old plant about 5 ft., columnar habit; lvs. narrow, to obovate, dark green; fls. single, about 3 in. diameter, circular in form with overlapping lobes, margins Rose Red, centres paler than Rose Pink (Ridgway), dots of blotch area distinct, small, Deep Rose pink, stamens 10, pistil normal. Until the plant is well furnished with blooming twigs, only about 50 per cent of blooms will show the light centres.

Lucky Lady

cl. An Exbury Hybrid Azalea seedling; (J. D. Zimmerman, 30 Vanderveer St., Rockville Centre, New York, U.S.A.; plant purchased as an Exbury Hybrid Azalea seedling from Cornfords, P.O. Box 100, Marion, Oregon); fls. single, in huge trusses of 30 to 34, 2½ in. wide, 3 in. long, rich gold with reddish blotch, hardly any fading.

Machrie

cl. A hybrid of R. meddianum; (National Trust for Scotland, Brodick, Castle Gardens, Brodick, Isle of Arran, Scotland); Ivs. ovate to ovate-oblong, cordate at base, glabrous below, 5 in. long, 23 in. broad; fls. 15 in moderately compact truss; calyx 5-lobed, almost same colour as corolla which is funnel-shaped, 5-lobed, the lobes slightly reflexing, 13 in. long, 31 in. wide, Currant Red (H.C.C. 821/3). A.M. (R.H.S.) 1965.

Madame Hugo T. Hooftman

cl. Parentage unknown; (Fa. Hugo T. Hooftman, Boskoop); fls. 15 to 17 in compact truss, Solferino

Purple (H.C.C. 26/1).

Malaguena

cl. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi- to evergreen; fls. early, double, 1½ to 1½ in. diameter, 12 to 16 petals, Begonia Rose flushed Rose Doree (Ridgway), dots on upper petals Tyrian Rose, pistil usually present, stamens missing. In Mr. Morrison's garden shows strong tendency to autumn as well as spring flowering. Garden

Mariner

effect of bloom is a brilliant Coral Pink.
cl. 'Day Dream' \(\preceq\) \(\times\) ('Hawk' \(\times\) 'China'); (A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey, England); fls. 15 to 20 per truss, unfading

Primrose Yellow, greenish yellow blotch, Ochre in bud.

Marion Armstrong cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 10-year-old plant 5 ft. tall, spreading to 3 to 3½ ft.; fls. double, 14 to 20 petals, flat like a formal camellia, Begonia Rose (Ridgway) with very few dots of Carmine on upper lobes; some autumn bloom in Mr. Morrison's garden.

Mary Lou

cl. Illam Azalea Hybrid; (H. Van de Ven, Dickens Road, Olinda, Victoria, Australia); fls. Indian Yellow (H.C.C.

6/1) flushed pink on tip of petals.

Maud Jacobs

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 15-year-old bush now about 20 in. tall and 24 in. wide (this may be less than normal on account of cuttings having been taken); fls. double, 15 to 20 overlapping petals, 3 to 3½ in. diameter, Tyrian Pink (Ridgway) with a few dots of Tyrian Rose in the blotch area, few, if any, stamens, pistil apparently normal. The chief value of this clone is the low spreading habit and extreme floriferousness.

May Blaine

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss.

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39571, U.S.A.); evergreen, 10-year-old plant 3½ ft. tall and broad; fls. late, double, $2\frac{1}{2}$ to 3 in. diameter, 12 to 16 imbricated petals, flat like a formal camellia, Light Mallow Purple, dots on upper lobes, few, Tyrian Rose (Ridgway), pistil usually perfect, few, if any, stamens.

Garden effect of light lavender.

cl. falconeri × niveum; (Mrs. Douglas Gordon, Heathersett, Littleworth Cross, Seale, Surrey); 1vs. 9 in. long, 4 in. wide, elliptic, pale mat-like indumentum below; fls. 42 per round tightly packed truss, oblique-campanulate, 21 in. long, 2 in. wide, white with light flush of Cyclamen Purple (H.C.C. 30/3), small deep stain in

throat. A.M. (R.H.S.) 1965.

[Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; fls. late, double, with somewhat rosette type of doubling, 10 to 15 petals, 2½ to 23 in dignerate cl. [Glenn Dale]; 'Warai-gishi' 23 in. diameter, between Scarlet and Peach Red (Ridgway).

'Mrs. C. S. Sargent' ×? 'Britannia'; (Fa. Felix & Dijkhuis, Boskoop); fls. 18 in compact truss, 3 in. diameter, Persian Rose (H.C.C. 628/1) with a dark

brown spotting on the upper lobe.
cl. 'Bowbells' × Hawk'; (A. R. Heineman, Milton, Wash., U.S.A.); plant to 5 ft. in 13 years; lvs. elliptic, rounded at base, 24 in. long by 14 in. broad; fls. 9 in upright truss, funnel-campanulate, to 21 in. wide, 5lobed, Apricot (H.C.C. 609/3) to Chinese Coral (614/3); early May

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 10-year-old plant about 2 ft. high and broad; fls. late, double with many petaloid stamens, some stamens, and loose arrangement of the 10 to 18 rounded petals, 2 to 2½ in. diameter, centre irregularly white, sometimes tinted, borders between Rose Pink and Pale Amaranth Pink (Ridgway).

cl. [Glenn Dale]; 'Kagetsu' × seedling 32666 (indicum × 'Hazel Dawson'); (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen; fls. 2½ to 2¾ in. diameter, single, somewhat funnel-shaped, centre white with the smallest amount of white on the uppermost lobe, margins Mallow Purple (Ridgway), dots in the blotch area Aster Purple with a faint greenish wash over the blotch

area as well.

cl. impeditum hybrid; (J. D. Ruys, Moerheim Nurs., Dedemsvaart (1950)); fls. 11 in. diameter, Aster Violet

(H.C.C. 38/3).
cl. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi- to evergreen, 10-yearold plant 4 ft. tall and broad; fls. early, double, 1\frac{1}{4} to 1\frac{1}{2} in. diameter, 15 to 20 petals, Amaranth Pink and petals corresponding to upper lobes shaded with Light Phlox Purple, dots on blotch area Tyrian Rose (Ridgway); garden effect a purplish rose. In Mr. Morrison's garden shows a marked tendency to autumn as well as spring

cl. Cultivated in Japan for more than 300 years and not known in wild; lvs. $1\frac{1}{2}$ in. long by $\frac{1}{2}$ in. wide, narrowelliptic, ciliate, hairy below; fls. in twos or threes; pedicels ½ in. long, ciliate; calyx 3/3 in. long, leafy;

Merrymaker

Mecca

Merveille de Boskoop cl.

Mira-Mi Linda

Miss Jane

a Misty Plum

Moerheim

Moresca

Mucronatum

corolla wide funnel-form, $2\frac{1}{2}$ in. long by $1\frac{7}{10}$ in. wide, white with very faint tinge of pale cream on upper lobes.

Mumtaz-i-Mahal

cl. 'Day Dream' × 'Margaret Dunn'; (Lester E. Brandt, Route 5, Box 542, Tacoma, Wash. 94823, U.S.A.); plant 5 ft. by 5 ft. bushy and compact; Ivs. 7 in. long, 2½ in. broad; fls. 9 to 10 to full and compact truss, 2 in. long, 7½ in. wide, 7-lobed, frilled, Amber Yellow (H.C.C. 505) shading to 505/2 at edges, rays of Burnt Orange in throat.

New Romance

cl. 'Lady Bligh' × 'Loderi Venus'; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); lvs. to 5 in. long by 1½ in. wide; fls. 2½ in. across, rose pink in bud opening white; late flowering.

Nicholas

cl. R. ponticum hybrid; (raised by late Lionel de Rothschild, exhibited by Edmund de Rothschild, Inchmery House, Exbury, Southampton, Hants.); lvs. 6 in. long, 2 in. wide, oblanceolate to narrowly elliptic, pale green below; fls. in closely packed truss of some 19 blooms; corolla open funnel-shaped, 5-lobed, 2 in. long, 3½ in. broad, Petunia Purple (H.C.C. 32/1) paling towards the centre, throat and segment of upper segment white, spotted green, A.M. (R.H.S.) 1965.

Noyo Chief

spotted green. A.M. (R.H.S.) 1965.
cl. Hybrid of *R. arboreum* subsp. *nilagiricum*, and grown in the Pacific Northwest of America for some years as *arboreum kingianum*; (Dr. and Mrs. P. J. Bowman, Fort Bragg, California, U.S.A.); Ivs. parsley-green, highly glossy, slightly bullate, elliptic, to 7 in. long and 2½ in. broad, plastered with fawn indumentum beneath; fls. up to 16 in compact truss, broadly campanulate, clear Rose Red (H.C.C. 724) to 2½ in. wide by 2 in. long, erect; plant very floriferous up to 10 ft. high and wide in 10 years; seedlings have bloomed in 3 years but have not come true from seeds.

Oceanlake

Orange Flare

cl. 'Blue Diamond' × 'Sapphire'; (Arthur O. Wright, Milwaukie, Oregon, U.S.A.); plant densely compact; lvs. 1 in. long by $\frac{3}{8}$ in. broad; fls. 4 to 6 per truss, 1 in. diameter, onen flat deep violet blue; April

diameter, open, flat, deep violet blue; April.
cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen, 10-year-old plant now about 18 in. tall and as wide, growth somewhat erect and close; fls. double, 2½ to 3 in. diameter, petals somewhat narrow and clearly cut to base, inner base of each petal between a hue paler than La France Pink or Hermosa Pink (Ridgway), the tips between Geranium Pink and Rose Doree (Ridgway), no blotch area, no trace of stamens and, when present, pistil usually normal though in some cases with a petaloid flag; the flowers approach a tassel-like form and are very striking; late in bloom, end of May and early June in

Oudijk's Favorite

Mississippi. cl. augustinii hybrid; (Fa. le Feber & Co., Boskoop (1958)); fls. 1³/₄ in. diameter, Campanula Violet (H.C.C. 37/1). Flora Nova, Silver Medal (Boskoop), 1958.

a Painted Tips

cl. [Glenn Dale]; Seedling 79/49 (seedling 38/45 × 'Cavendishi') × 'Shinnyo no Tsuki'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen, low growing with spreading

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habit, 10-year-old plant now about 20 in. tall, and wider in spread; fls. single, 2 to 3 in. diameter, not much overlapping of lobes, ground colour an off-white with a slight flush of La France Pink near the tips that are blotched with spot of Rose Doree (Ridgway), the blotch area distinct but not showy, Pinkish Vinaceous, stamens 5, pistil Rose Doree; late in bloom, end of May in Mississippi.

Pearl Diver

cl. 'Ice Cream' × 'Moser's Maroon'; (A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey, England); fls. in compact truss of 18 to 20, pink with yellow eye.

Peeping Tom

cl. wardii × 'Mrs. Furnival'; (Arthur O. Wright, Milwaukie, Oregon, U.S.A.); plant to 3 ft. in 10 years, round semi-compact; lvs. ovate, 3 in. long by 1½ in. wide; fls. 10 to 12 in compact truss, shallow campanulate, 2½ in. wide, white with plum purple eye; May.

Prince Charming

May.

cl. Selected seedling from selfed seeds of *R. schlippenbachii*; (Sir Giles Loder, Leonardslee, Horsham, Sussex); fls. in loose clusters of fours or fives; pedicel \(\frac{3}{5}\) in. long, hairy; calyx \(\frac{3}{10}\) in. long, ciliate; corolla \(3\frac{1}{5}\) in. across, \(1\frac{3}{5}\) in. long, lobes large, \(1\frac{2}{5}\) in. long and \(1\frac{1}{10}\) in. across, Rhodamine Pink (H.C.C. 527/2) with some darker tinging, upper lobe spotted deep crimson. F.C.C. (R.H.S.) 1965.

Ptarmigan

cl. leucaspis × microleucum; (P. A. Cox, Glendoick, Glencarse, Perth); dwarf compact spreading plant, 6 in. high; lvs. oblong up to 1 in. long, densely scaly below; inflorescence a terminal cluster of several 2 to 3 flowered trusses; calyx lobes oblong; corolla broadly funnel-shaped, 5-lobed, ½ in. long, 1 in. wide, white, stamens 10 protruding. F.C.C. (R.H.S.) 1965.

a Red Slippers

cl. [Glenn Dale]; ('Andros' × 'Parade') × 'Keisetsu' = ('Vittata Fortunei' × 'Warai-gishi') × (kaempferi × mucronatum) × 'Keisetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen, 10-year-old plant about 24 in. × 24 in., but the plant has been crowded and these measurements may give a false impression; fls. single with occasional petaloidy of stamens, 2½ to 3 in. diameter, 2 to 4 per head, freely produced and with some tendency to autumn and winter bloom in Mississippi, Rose Red, with dots of blotch area, distinct though not showy, of Pomegranate Purple (Ridgway) which give only the effect of deeper colour at base of flower, stamens 5, some petaloidy, pixil normal

a Rejoice

petaloidy, pistil normal.
cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 10-year-old plant 4 ft. tall and almost as broad, growth habit more open than in other siblings; fls. late, double, 10 to 12 petals opening widely as in a semi-double rose, but individual petals rounded and well imbricated, between Rose Pink and Rose (Ridgway) with some dotting in blotch area of upper petals, Tyrian

a Rose Brocade

Rose, pistil and stamens often malformed.
cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 15-year-old bush now about 4 ft. tall and almost as broad; fls. double, 2½ to 3 in. diameter, 15 to 20 petals, broad, overlapping, Rose (Ridgway), small traces of Tyrian Rose dots in blotch

area of uppermost petals, no stamens, pistil, if present,

apparently normal.

cl. griersonianum × 'Lady Clementine Mitford'; (Major Saltwood

A. E. Hardy, Sandling Park, Hythe, Kent); Ivs. 6 in. long, 1½ in. wide, pale green below, narrowly elliptic; fls. in trusses of 8 or 9; calyx minute; corolla 5- to 7lobed, open funnel-shaped, almost 3 in. long and 4½ in. wide, Neyron Rose (H.C.C. 623/1), reverse Carmine

Rose (H.C.C. 621). A.M. (R.H.S.) 1965.

cl. 'Lady Bessborough' × souliei; (Major A. E. Hardy, Sandling

Sandling Park, Hythe, Kent); lvs. 7 in. long, 2 in. broad, oblanceolate, pale green below; fls. in closely packed truss of some 12 blooms; corolla open funnel-shaped, frilled, $2\frac{1}{5}$ in. long, $3\frac{1}{2}$ in. across, Rhodamine Pink (H.C.C. 527/3), throat flushed amber with darker spotting, Rhodamine Pink (H.C.C. 527/2) on the corolla reverse. A.M. (R.H.S.) 1965.

cl. 'Sir Joseph Hooker' × yakusimanum; (Crown Estate Commissioners, Windsor Great Park, Berks.); lvs. 5\frac{1}{2} in. long, 2\frac{1}{2} in. wide, light to medium dull green; fls. white, flushed Dawn Pink (H.C.C. 523/3) on centre of segments, buds a shade of Spiraea Red (H.C.C. 025/2); fls. in trusses averaging 16, 64 in. diameter, 6 in. deep, dome-shaped; corolla 2 in. diameter, 13 in. long, campanulate, margins waved and notched. H.C. (Wisley

Trials) 1965.

elliottii × 'Sarita Loder'; (cross made by Rt. Hon. M. A. C. Noble, M.P., Strone, Cairndow, Argyll, cl. elliottii × Scotland, seedlings raised and grown by Sir George Campbell, Bt., Crarae, Argyll, Scotland); lvs. oblongoblanceolate, including the petiole up to nearly 10 in. long, 2 to 3 in. wide, glabrous; fls. 17 to 18 in large racemose umbel, broadly tubular-campanulate, nearly 3 in. long, fleshy, 5-lobed, Signal Red (H.C.C. 719/3)

with numerous deeper spots and 5 nectar pouches. cl. 'Day Dream' × 'Margaret Dunn'; (Lester E. Brandt, Tacoma, Wash. 98423, U.S.A.); fls. 10 to 12 to truss, facing outwards, 3½ in. wide, 1½ in. long, 7-lobed, Chrome Yellow (H.C.C. 605) shading to 605/2 at

edges, Burnt Orange rays of spots in throat.

cl. 'General Sir John du Cane' × griffithianum; (Edmund de Rothschild, Exbury, nr. Southampton, Hants., England); fls. white, flushed pink, with green markings in throat. P.C. (R.H.S.) 1965.

Sir George Sansom cl. lacteum × 'Luscombei'; (Geoffrey Gorer, Sunte House, Haywards Heath, Sussex); lvs. $4\frac{3}{10}$ in. long, $2\frac{1}{5}$ in. broad, base auricled; fls. 15 in tight globular truss; corolla 2½ in. long, 3 in. wide, campanulate, pale yellow prominently tinged pink, buds rosy pink. A.M. (R.H.S.)

1965

Snow Goose cl. 'Day Dream' ♀ × 'Ice Cream'; (A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey); fls. 10 to truss, open funnel-shaped, white in bud opening

to white, with large yellow blotch.

cl. discolor ♀ × 'Lodauric Iceberg'; (A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey); fls. 12 to the truss, large, white, open funnel-campanulate with bronze throat; selected for R.H.S. Trials, Wisley, 1965.

cl. [Glenn Dale]; Parentage unknown; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); semi-evergreen, foliage excellent and ample at blooming time, 10-year-old plant 4½ to 5 ft., somewhat open in

Seven Stars

Shadow Secretary

Shah Jehan

Shangri La

Southern Cross

Spring Bonnet

habit; fls. single, 2 to 23 in. diameter, 2 to 3 per head, lobes nicely overlapping, a garden effect of clear pale pink, centre of each flower almost white, with a deepening tone to the margins of Pale Amaranth Pink, almost Amaranth Pink on actual margins (Ridgway), dots of blotch area distinct, darkening, when on the deeper tones of the lobes, to Tyrian Pink, stamens 5 to 8,

pistil normal; blooming in early May in Mississippi.
cl. 'Marion' × 'Mrs. C. S. Sargent'; (Fa. Felix & Dijkhuis, Boskoop); fls. 16 in compact truss, 3½ in. diameter, inside Magenta (H.C.C. 27/3) with brown spotting on upper lobe, outside Magenta (H.C.C. 27/2). Flora

Nova, Silver Medal (Boskoop) 1958.

cl. [Glenn Dale]; ('Vittata Fortunei' × 'Warai-gishi') × 'Pluto'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen to semi-evergreen, 10-year-old plant about 4 ft. tall and broad; fls. early, double, 1½ to 13 in. diameter, 16 to 18 petals, Geranium Pink, dots on upper lobes Tyrian Rose (Ridgway), pistil usually missing, stamens rarely; garden effect of bright coral pink but distinct from 'Malaguena'; strong tendency to autumn bloom as well as spring flowering in Mr. Morrison's garden.

cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen, 10-year-old plant 4 ft. tall and broad; fls. late, double but appearing like a single flower with a crest of small irregular inner petals, some of them with the vestiges of anthers showing, Mallow Purple with blotch area Aster Purple (Ridgway) showing only towards the bases of petals in the upper section.

cl. 'Belle Heller' × catawbiense var. album; (D. G. Leach, Brookville, Pa., U.S.A.); plant 4 ft. tall, 6 ft. across in 11 years from seeds, compact habit; lvs. 5 in. long by 2 in. broad, elliptic with faint white stippling above; fls. 20 to a full 6 in. diameter pyramidal truss, widely funnel-shaped, 3 in. wide, white but occasionally variable to very pale pink (Nickerson 2.5RP 10/2) with bold dorsal blotch, spotted strong yellow (2.5Y 7/10).

cl. griersonianum × macrophyllum; (George Baker, Astoria, Oregon, U.S.A.); plant to 6 ft. in 10 years, upright, rounded; lvs. to 7 in. long by 2 in. wide, oblong elliptic; fls. 15 in upright truss, wide bell-shaped, 5-lobed, up to 3 in. wide and 2½ in. long, soft rose red, top petal

spotted darker. cl. [Glenn Dale]; 'Warai-gishi' × 'Kagetsu'; (B. Y. Morrison, Route 1, Box 24, Pass Christian, Miss. 39571, U.S.A.); evergreen; growth low, slow, forming a plant broader than tall and notable in that the white that appears in the centre of flowers may be slow to appear, usually not dependable till the plant is mature; fls. late, double, 23 to 3 in. diameter, petals narrow and rather irregular, giving a loose appearance, 16 to 20, close to Old Rose (towards Venetian Pink) (Ridgway).

cl. Form of *R. campanulatum*; (Royal Botanic Garden, Edinburgh, 3, Scotland); lvs. oblong-elliptic, 3 in. long, 1½ in. wide, covered below with rich cinnamon brown felted indumentum; fls. 13 in fairly loose truss; corolla funnel-campanulate, 11 in. long, 2 in. wide, the 5 lobes spreading and waxy in texture, Phlox Purple (H.C.C. 632/3) spotted Pansy Purple (H.C.C. 928). A.M. (R.H.S.) 1965.

a Starfire

Spring Glow

Stormcloud

Swansdown

Walluski Chief

Waltztime

Waxen Bell

Winifred Kenna

cl. Parentage unknown; (Clarence Loeb, Puyallup, Wash., U.S.A.); lvs. to 6 in. long; fls. in conical truss, to 4 in. wide, orchid with purple blotch; mid-May.

a Wintertime

cl. 'Aladdin' 9 × 'Amoena'; (Experimental Station f/t Nurseries, Boskoop); fls. erect. 1½ in. diameter, Geranium Lake (H.C.C. 20/1), A.M. (Boskoop Trials) 1963. Name published by Ir. F. Schneider in *De Boomkwekerij* vol. 18, nr. 9, 8.3, 1963.

Yangtze Bend

cl. Form of *R. uvarifolium* grown from seeds of *Forrest* 10639; (Royal Botanic Garden, Edinburgh, 3, Scotland); lvs. oblanceolate, 9 in. long, $2\frac{1}{2}$ in. broad with plastered whitish indumentum below; fls. up to 26 in large compact truss; corolla funnel-campanulate, 5-lobed, 2 in. long, $2\frac{1}{2}$ in. wide, Rose Pink (H.C.C. 427/3) spotted and blotched Indian Lake (H.C.C. 826/3). A.M. (R.H.S.) 1965.

Corrected Description

Ruby Bowman

cl. fortunei ♀ × 'Lady Bligh'; (cross by Dr. Bowman, 160 Brandon Way, Fort Bragg, California, 1940, named and exhibited by Druecker 1953); plant first bloomed in 1950; fls. Tyrian Rose (H.C.C. 24/1-2), Blood Red base to throat (H.C.C. 823/17). P.A. (A.R.S.) 1951.

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