

LILY

Special Conference Number

This includes all the papers read to the Lily Conference, together with the discussions which followed them. It will thus form the most important issue of recent years. It is also larger in size than previous issues and there are six pages of colour plates as well as black and white illustrations, including the striking new lily 'Limelight', which received an F.C.C. when shown at the Lily Conference Show. There are also discussions on Fritillaria and Nomocharis opened by Rear-Admiral Paul Furse and Major W. G. Knox Finlay respectively. In addition to the Conference Report the Lily Group Discussion on *Eremurus*, which was opened by Sir Frederick Stern, accounts of hybrid lilies at Edinburgh and of lilies at Quarry Wood, of new *auratum* x *speciosum* hybrids raised in New Zealand and of lilies in Eastern Germany, as well as a report of the Lily Show, are included. The book is dedicated to Dr. S. L. Emsweller and The President, The Hon. Sir David Bowes Lyon, has also written a short tribute to the work of Sir Frederick Stern for the Lily Group.

Price 15s. U.S.A. \$2.25
Postage and packing 1s. 3d.

DAFFODIL AND TULIP

This is a full-length book of about 160 pages with two colour plates, Narcissus 'Debutante', one of Mr. J. L. Richardson's best new pink trumpet daffodils and the other a group of Mr. D. W. Lefeber's hybrid tulips Colour Parade.

Important articles on daffodils include a Survey of the best Exhibition Daffodils of 1959 by Mr. David Lloyd, an account of the Daffodil Trials at Wisley by Mr. Herbert Barr and a useful symposium on the use of Pre-emergence Herbicides in Daffodil and Tulip Crops, with contributions from a research station and a big grower in this country and from a research station in U.S.A. The American part of the book is particularly strong this year with articles by such famous authorities as Mr. John C. Wister, Mr. Grant Mitsch, Mr. Harry Tuggle, Mr. Willis Wheeler and Mrs. R. C. Watrous, who discusses Miniature Daffodils in America.

This year there are also two very important contributions on Tulips, one on Raising and Introducing New Tulips, by Mr. D. W. Lefeber of Lisse, the other on Broken Tulips and Virus in Tulips, by Prof. E. van Slogteren. The latter is also illustrated with small coloured plates.

Price 12s. 6d. U.S.A. \$2 post free
Postage and packing 1s. 3d.

Obtainable from the Secretary

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

THE RHODODENDRON AND CAMELLIA



THIS issue contains an unusually interesting symposium on aims and methods in breeding hybrid rhododendrons and azaleas and a number of the most prominent raisers have contributed to it. The main rhododendron garden described is Mr. A. C. Gibson's at Rhu, Dunbartonshire where a number of interesting large-leaved hybrids have been raised, and Mr. H. H. Davidian continues his account of rhododendrons in the Royal Botanic Garden, Edinburgh. There are also articles on rhododendrons and camellias from many parts of the world, and especially from the United States and New Zealand, and there are authoritative descriptions of a number of varieties of *Camellia japonica*.

COVER ILLUSTRATION

Rhododendron albrechtii

Colour photograph by
J. E. Downward

YEAR BOOK—1960

THE ROYAL HORTICULTURAL SOCIETY

12s. 6d. postage and
packing 1s. 3d.
U.S.A. \$2 post free

ACKNOWLEDGEMENTS

TO THIS ONLINE EDITION

The volumes of the *Rhododendron and Camellia Year Book* issued between 1954 and 1963 could not have been published online without the generosity of others.

The Rhododendron, Camellia & Magnolia Group extend their thanks to the descendants of the contributing authors, and others who are now responsible for the copyright, for permitting those words to be reproduced in this format.

Despite our diligence in seeking the current copyright holders, there may be authors whose work is still in copyright who we were unable to trace, for which we apologise. The Group's 'Takedown Policy' may apply in this case; please visit

<http://www.rhodogroup-rhs.org/takedown-policy>

for details.

This material is made freely available for
research purposes only.

Copyright in the text remains with the authors and
further copying or reuse of this work is expressly
prohibited.

2025

1
11-00



Photo, J. E. Downward

R. albrechtii. An unusually fine form shown by LIEUT.-COL. SIR EDWARD BOLITHO, K.B.E., D.S.O., in Class 11 at the Rhododendron Competition on March 24, 1959 (see p. 74)

THE RHODODENDRON
AND CAMELLIA
YEAR BOOK

1960

NUMBER
FOURTEEN



LONDON

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

1959

PUBLISHED DECEMBER 1959

Editors

N. K. GOULD

P. M. SYNGE, M.A., F.L.S.

Year Book Committee

SIR GILES LODER, BT. (*Chairman*)

DR. J. MACQUEEN COWAN, C.B.E., V.M.H.

COL. THE LORD DIGBY, D.S.O., M.C., T.D.

H. G. HILLIER, F.L.S., V.M.H.

G. H. PINCKNEY

J. L. RUSSELL

SIR ERIC SAVILL, K.C.V.O., C.B.E., M.C., M.A., V.M.H.

MRS. R. M. STEVENSON

PRINTED IN GREAT BRITAIN BY
SPOTTISWOODE, BALLANTYNE AND CO. LTD.
LONDON AND COLCHESTER

CONTENTS

	<i>Page</i>
Foreword. By SIR ERIC SAVILL, K.C.V.O., C.B.E., M.C., M.A., V.M.H.	vii
Glenarn, Rhododendrons in 1959. By A. C. GIBSON	9
The American Rhododendron Society Test Garden. By J. HAROLD CLARKE, PH.D.	13
A Symposium. Aims in Breeding Rhododendrons, including Azaleas. By LORD ABERCONWAY, F. E. W. HANGER, V.M.H., MAJ.-GEN. E. G. W. W. HARRISON, C.B., C.B.E., M.C., M.A., COL. SIR JAMES HORLICK, BT., CAPT. COLLINGWOOD INGRAM, F.L.S., V.M.H., MR. MICHAEL NOBLE, M.P., MR. EDMUND DE ROTHSCHILD, SIR ERIC SAVILL, K.C.V.O., C.B.E., M.C., V.M.H., THE EARL OF STAIR, K.T., D.S.O., V.M.H., MRS. R. M. STEVENSON, MR. G. DONALD WATERER	19
Rhododendrons in the Royal Botanic Garden, Edin- burgh. Part II. By H. H. DAVIDIAN, B.SC.	42
Rhododendrons in New Zealand. By W. DOUGLAS COOK	54
Rhododendron Problems Answered. A Beginner's Guide. By F. E. W. HANGER, V.M.H.	60
The Propagation of Rhododendrons by Budding. By JOHN S. DRUECKER	69
Rhododendron Competition, 1959. By PATRICK M. SYNGE	71
The Rhododendron Show, 1959. By LANNING ROPER	77
The Seattle Chapter (American Rhododendron Society) 1959 Rhododendron Show. By HARRY R. MADISON	91
11th Annual Tacoma Rhododendron Show. By LEONARD F. FRISBIE	96

Rhododendron Notes:

<i>R. dalhousiae</i> at Ballywater Park, Co. Down. By GRACE, LADY DUNLEATH	99
A Remarkable Display of Evergreen Azaleas in 1873. By ALLAN G. LANGDON	99
Pruning of Old Azaleas. By ANNE NOBLE	100
<i>R. ponticum</i> as an Epiphyte. By GEORGE GRAHAM	101
A Visit to Portugal. By SIR GILES LODER, BT.	103
Caerhays Camellias and Shrubs. By JULIAN WILLIAMS	107
Camellias at Underway, West Porlock. By NORMAN HADDEN	115
Camellias in New Zealand. By COLONEL T. DURRANT, D.S.O., M.B.E., T.D.	117
Camellias at Longwood Gardens, Kennett Square, Pennsylvania. By DONALD G. HUTTLESTON	124
A Trip to see <i>Camellia granthamiana</i> . By CYNTHIA G. BASHALL	129
Camellia Competition, 1959. By ROBERT E. ADAMS	132
Camellia Notes:	
<i>Camellia</i> × <i>williamsii</i> 'Golden Spangle'. By H. G. HILLIER, F.L.S., V.M.H.	138
Thirty-nine Popular <i>Camellia japonica</i> Varieties. By C. E. PUDDLE and F. E. W. HANGER, V.M.H.	139
Camellias and Rhododendrons which received Awards in 1959	162
Awards to Rhododendrons after Trial at Wisley, 1959	164
Rhododendron and Camellia Committee for 1959	168
Index	170

ILLUSTRATIONS

FIGURES

<i>Rhododendron albrechtii</i>		<i>Frontispiece</i>
		BETWEEN PAGES
1-4	The American Rhododendron Society's Test Garden, Oregon	16-17
		FACING PAGE
5	Rhododendron 'Rosenkavalier'	} 32
6	Rhododendron 'Morvah'	
7	Rhododendron 'General Wavell'	} 33
8	Rhododendron 'Fleece'	
9-10	Rhododendrons in the Royal Botanic Garden, Edinburgh	48
11	<i>R. grande</i> in New Zealand	49
12	Rhododendrons at Pukekura Park, New Zealand	64
13	<i>Rhododendron sinonuttallii</i>	65
14	<i>Rhododendron ponticum</i> as an epiphyte	65
15	<i>Rhododendron dalhousiae</i>	80
16	<i>Rhododendron wardii</i> 'Ellestee'	81
17	<i>Rhododendron chaetomallum</i>	81
18	Evergreen azaleas at Bath in 1873	96
19	An unusually fine evergreen azalea	96
20	<i>Camellia japonica</i> 'R. L. Wheeler'	97
21	<i>Camellia japonica</i> 'Rubescens Major'	97

	BETWEEN PAGES
22-25 Camellias in Portugal	112-113
26-29 Camellias in New Zealand	} 120-121
30-32 Camellias at Longwood	
33-35 Camellias at Underway, West Porlock	128-129
36 The Peer Trophy exhibit at the Camellia Competition, 1959	} 152-153
37-45 Varieties of <i>Camellia japonica</i>	

FOREWORD

READERS will find the 1960 *Rhododendron and Camellia Year Book* not only intensely interesting, but amusing as well. They will enjoy the account of MR. A. C. GIBSON's Job-like persecutions which he describes in the article on his garden at Glenarn—if only for the fact that he won through in the end! This is a most refreshing and interesting article, starting with calamities and ending with great successes.

Then we have a Symposium contributed by various breeders of rhododendrons in the British Isles. Readers will discover that nearly every contributor has a different approach to hybridizing, and that those who recommend one particular line or approach are condemned by others, a robust series of short articles which will give readers much food for thought—and quite a lot of entertainment.

We have, also, a fascinating description by CYNTHIA G. BASHALL of her trip to see *Camellia granthamiana* growing on the slopes of Tai Mo Shaan.

We are fortunate, too, to be able to include an article by SIR GILES LODER on a visit to see camellias in Portugal, a country where this genus has been favoured for so many years.

COLONEL T. DURRANT has contributed a most interesting article on plant life in New Zealand, including a description of some of the early planting of camellias in that country and the work which is being done at the present time.

A somewhat similar, and equally interesting, article by Mr. W. DOUGLAS COOK on rhododendrons in New Zealand is also worthy of note. We are glad to have the second part of MR. DAVIDIAN's description of the Rhododendrons in the Royal Botanic Garden at Edinburgh.

Camellia enthusiasts will be most grateful to MR. CHARLES PUDDLE, and to MR. HANGER, for their painstaking description of certain *Camellia japonica* varieties grown in this country. This, we hope, is the beginning only of such an important task. We welcome also the article by MR. JULIAN WILLIAMS on Camellias and other shrubs in his wonderful garden at Caerhays where he has been trying to trace the original plants and parents of the varieties of *C. × williamsii*.

This year, for the first time, the R.H.S. staged a *Rhododendron* Competition for early-flowering species and hybrids. MR. SYNGE's description of this Competition is most interesting, and it is sincerely hoped that more gardeners will enter for the Competition next year.

For our coloured plate we have used a photograph of *R. albrechtii* from SIR EDWARD BOLITHO's garden at Trengwainton. It is a particularly fine form of this beautiful species.

ERIC SAVILL

Chairman, R.H.S. Rhododendron and Camellia Committee

GLENARN, RHODODENDRONS IN 1959

By A. C. GIBSON

WHEN we took over this house and its patch of around thirteen to fourteen acres at Rhu, Dunbartonshire, in January 1927, we came into an inheritance of some of the bigger old hybrids which surround the lawn. I can give some measurements presently. At that date, and barring the hybrids, there were at least two outstanding plants, one *R. falconeri*, almost certainly from HOOKER's 1848 seed, and a huge plant of *R. thomsonii*, of perhaps about the same vintage. The latter succumbed to snow breakages in the bad winter of 1947; it was broken to bits by the weight of snow, but the former, *R. falconeri*, still thrives and flourishes. And then back to the gale of February 1927, which will long be remembered in the west of Scotland. It smote us well and true and proper, and knocked down over seventy very big trees, coniferous and deciduous, and having almost no outside help at that time, we had to get going and clear up the fallen stuff and the debris underneath. Perhaps that was the main reason for our idea to make good the open patches provided, after the fallen mess had been cleared up. We were more than usually lucky at that time and we have been ever since, in many friends who owned fine plants and bequeathed to us seedlings, layers of good things, and so forth. Those beginnings have since repaid the kindness of so many enthusiasts who gave us a start at the time. Woe is me, that so many of those kind and enthusiastic people are now away from this world.

Anyway, that February 1927 gale made us work like niggers and, by and by, some of the smaller stuff got a grip, started to grow and as years went on even deemed it proper to start flowering. The earliest and perhaps precocious flowers, were a terrific thrill, and so they are to this day on any newcomer which flowers for the first time. And in that connection we now know after more than thirty years' hard labour on the problem, that the first flowers on any hitherto unflowered rhododendron, should neither be damned nor praised (often the former is the case!). A first flower or two upon a new affair is so very often disappointing. Give it a year or more (it will most likely not flower again in a hurry) and then see, when it comes into full fig, so to speak, whether it is worth its place or whether, after twenty or more years watching, it is perhaps not worthy and should be quietly cut out and bonfired to make room for something which may prove to be better.

In 1927 when, as I say, providence decreed that we should take an interest in the vacant spaces, a good old friend suggested that we should keep a log book of any plants, very small ones at that time, and this we did. That book (known perhaps irreverently to my family) is known as the Rhododendron Bible!

We cannot claim that it is perfect in any respect, but we can claim that it is a loose-leaf affair, with a page for each entry showing the source of origin, the donor, seed collector's number, and so on and so forth, with many embroideries in subsequent years, both flattering and the reverse. *And*, most important, an index of the names and pages to which one has to look to find case histories of most of the plants.

That tome now has the names and addresses of something over five hundred different rhododendron plants, either species or blue-blooded hybrids. In the latter class we of course give pride of place to the wonderful warriors which surround our plain sloping lawn. Many of these are what one is forced to describe as "Bad Reds", but by their measurements they must surely be among the earliest of the crosses made between the red *R. arboreum* and the very hardy *R. catawbiense* from America. The colours vary and we have already found it necessary to shift a few of the *real* reds from such a position when their superlative colour clashes abominably with those red giants. But those giants have their place, particularly when mown grass goes up to their flowering point, right down to grass level.

For the rest, I suppose that we are lucky in having an annual rainfall of about 70 inches, with that rainfall I should add that we have a midge population in accordance, and that we are on a slope from our top point to our entrance gate. We have a couple of small burns which can go dry in a droughty period and a retentive loamy soil.

We have our problems, too, in the point of Honey Fungus. We make no doubt that this is a legacy from trees cut down in the past and the roots of the trees being left in the ground—*in situ*. Perhaps that Honey Fungus does not come out and make casualties, until a lapse of a good many years. Honey Fungus is a brute and a killer. We also have what seems to us to be a pest, in the shape of the so-called "Bud Blast". It seems mainly to be confined to *R. thomsonii* and its progeny, particularly 'Shilsonii' (*thomsonii* × *barbatum*). Some of these *thomsonii* plants are affected, and particularly with the *barbatum* cross the whole affair is subject to that habit of dropping-off of buds, just before they are due to flower. We cannot explain it!

And then, on the same problem of pests, we have some abominable little flying affair which seems to choose *R. mallotum*, with its very furry new growth wherein to lay its eggs and hatch out, in due course, a vile little caterpillar-creature which seems to come from nowhere and yet has a passion for *mallotum* and one or two others of the Felty leafed rhodos including *haematodes*. Why choose those affairs and not lay your eggs (from the point of view of the parent I mean!) on more congenial stuff.

Many of the rhododendrons here have taken a year off in 1959. They did their job superbly in 1958 and they can well be allowed a year with growth and no flowers to re-furbish, particularly the big-leaved species. Almost all have sat quiet and not flowered in 1959.

We notice another point, too. The size and the pigmentation (if I have the right word, the colour I mean) can vary year by year. Take this 1959 year for example, and a very poor year for flowering, we are all of the idea that the trusses are much smaller than usual and the colours are not so vivid as one should expect. And I cannot claim that the sun has been worse than usual, or that my spectacles have, as yet, been blackened by a mixture of midges and sweat!

I also mention the dates of flowering in 1959, splitting them into the first and second fortnights of March. We had some cold weather until the end of February 1959. I think our worst frost in over thirty years has not exceeded 16° F. below freezing point. Some of these would have been in flower in February barring frost.

1959—First fortnight in March

phaeochrysum, *ciliatum*, *praecox*, *arboreum*, *forrestii* var. *repens*, *fargesii*, *planetum*, *sutchuenense*, *barbatum*, *coryphaeum*, 'John, Holms' (*arboreum* × *barbatum*), *megeratum*, *selense*, *shepherdii*, *dasykladum*, *leucaspis*, × *nobleanum* (*nobleanum* can start flowering in November and go right on to May), *cyanocarpum*, *spiralile* var. *weihsiense*, *heptamerum*.

1959—Second fortnight in March

moupinense, *mallotum*, *erythrocalyx*, *stewartianum*, *moupinense* × *leucaspis*, *eclectum*, *pocophorum*, *oreodoxa*, *meddianum*, *argipeplum*, *lutescens*, *floccigerum*.

And here are some measurements of a few of the veteran tribe:

R. falconeri

Height 28 feet; diameter 33 feet; circumference 103 feet.
Collar 6 feet 4 inches; two trunks each of 3 feet 7 inches.
(See Fig. 46 in The Rhododendron Year Book, 1950.)

Red arboreum Hybrid

Height 35 feet; diameter 50 feet; circumference 157 feet.

15 trunks—Biggest five are: 2 feet 11 inches; 2 feet 8 inches; 3 feet 1 inch; 3 feet 4 inches; 3 feet 3 inches.

Red arboreum Hybrid

Collar boss 14 feet, composite.

6 trunks—4 feet 6 inches; 2 feet 0 inches; 3 feet 10 inches; 3 feet 5 inches; 2 feet 9 inches; 3 feet 0 inches.

The collar boss as expressed is rather like the head massif of the Cape Buffalow, *Bos Caffer*. This plant has the large collar boss, as I attempt to describe, and the measurements on ground level are given.

So also are the measurements of its various ramified trunks, at about 4 feet from ground level. This affair has layered itself well and truly far beyond the ambit of the original plant and those layers now bid against the parent in size and health.

R. macabeanum

3 feet high in 1936, 25 feet high in 1959; collar boss 3 feet 5 inches.

THE AMERICAN RHODODENDRON SOCIETY TEST GARDEN

By J. HAROLD CLARKE, PH.D.

(*President, The American Rhododendron Society*)

THE American Rhododendron Society since its founding in 1946 has had numerous projects, but none more ambitious nor more satisfying than the National Test Garden in Portland, Oregon. Soon after the Society was started it seemed desirable to certain members that a variety collection and Test Garden should be established. As the Society was started in Portland, and incorporated under the laws of Oregon, and as most of the membership at that time resided in Portland and vicinity, it was only logical that the garden project should be started in that city. Land adjacent to Sam Jackson Park was first acquired for the Society's Garden, but there were serious difficulties involved in developing that site and it was later released.

In 1950 the late MR. C. I. SERSANOUS, then President of the Society, conceived the idea of obtaining a very promising site located not far from his home in the Eastmoreland section of Portland. The place desired, which seemed to be ideal for the purpose, was an island in Crystal Springs Lake, a body of water fed by natural springs, lying within the Eastmoreland Golf Course. At one time a Shakespearean garden had been started on the island, but interest in that had apparently lapsed and the two large boxwoods, still to be seen, were the only visible evidence of that project.

MR. SERSANOUS approached the City Council of Portland and persuaded them to pass an ordinance permitting the American Rhododendron Society to use the island, as long as it wishes, for the purpose of growing and testing rhododendrons and azaleas. According to the agreement the Society shall furnish the plants and get them established, after which the City Park Department will maintain the area, furnish water and the services of a man as custodian or caretaker.

It was obvious from the beginning, and from the wording of the ordinance, that a great deal of volunteer work would have to be done by members of the Society. That work has been done by a devoted band, small in number, but great in accomplishment, that has been working on Saturdays, or whenever the opportunity offered, to establish the plantings on the island. Clearing had to be done, paths laid out, and arrangements made for orderly establishment of

rhododendron and azalea plants where they would be in suitable environment, and in happy co-existence with their neighbours, from the standpoint of size, colour, and blooming season.

There is a causeway to the island so that it can be serviced by truck. It soon became evident that this approach would not only be useful for getting supplies to the island, but it would also permit easy access by wandering boys who might want to play on the island, or even to gather rhododendron blooms. In order to prevent unauthorized persons visiting the area after closing hours, MR. SERSANOUS had built, at his own expense, a 6-foot Cyclone fence across the whole side of the island, so that access could be gained only through a gate which could be locked.

A Test Garden Committee took over the actual work of developing the garden under the chairmanship of MR. JOHN BACHER, a landscape nurseryman and well-known horticulturist. At MR. BACHER's retirement, because of poor health, the chairmanship was turned over to MR. C. T. HANSEN, who has been Chairman of the Test Garden Committee since that time. Although the credit for the success of the garden should go to many people who have contributed plants, or worked in various ways, special credit must go to these three: MR. C. I. SERSANOUS, who conceived the idea and who arranged for the Society to be granted the use of the island by the City of Portland, MR. JOHN BACHER, who was Test Garden Committee Chairman for a number of years, and to MR. C. T. HANSEN the present Chairman.

The first planting was made in 1950, at which time two forty-year-old 15-foot 'Cynthia' rhododendrons were moved in to flank a bronze tablet set in a large block of granite. The tablet bears an appropriate inscription beginning with these words: "Here in the charm of this exquisite garden living beauty may ever dwell in full glory." Incidentally, these large plants were moved to their present location with no apparent check to their growth. They bloomed the year they were moved and have continued to grow vigorously and bloom each year since that time. At the unveiling of the monument on May 5, 1951, there were appropriate ceremonies with the Mayor and City Council taking part.

The development of a large collection of horticultural varieties and species proceeded with reasonable speed, but it soon became evident that one thing was lacking. There was no provision for the tender rhododendrons which were needed to make the collection reasonably complete. A campaign was started, plans were drawn up and MR. SERSANOUS offered to provide the major part of the money

needed to build a cool house, to hold the collection which had been accumulating in the care of members of the Society. A quonset-type building with a plastic roof, electrically heated and ventilated, was built in 1956. It not only provided facilities for maintaining the collection of tender species, but included a covered area, or porch, on three sides, which gave considerable space for exhibitions. Since construction of the cool house the regular annual show of the Portland Chapter of the American Rhododendron Society has been held in this covered area.

The latest construction at the Test Garden has involved the bringing in of many tons of volcanic rock to form the basis for a rock garden on the slope at the north eastern end of the island. This area, some 300 feet in length, has been partially planted, but its further development is still an active project of the Test Garden Committee.

Although the island itself contains about four acres, it soon appeared that more space was needed. It seemed obvious that a reasonable area should not be planted to rhododendrons but kept in lawn, from the standpoint of overall appearance, and for the enjoyment of the public which visits the garden. The City Council was approached again, and a peninsula, several acres in area, near the island, and extending into the lake, was included within the original agreement. The City constructed a necessary foot-bridge on to the peninsula, and another from the peninsula to the island. They also developed a parking space on S.E. 28th Street, the nearest access highway.

The entrance to the island is from the parking space, just across the street from Reed College. The path to the planted areas leads down a series of steps between some fast-growing trees of *Cedrus atlantica* var. *glauca* to a foot-bridge across a deep ravine in which flows a clear, spring-fed stream of running water. It is hoped eventually to develop the sides of this ravine into a planting area for some of the large-leafed species. Here it is always cool and moist in summer and relatively protected during cold winter weather. The bridge leads to the base of the peninsula where, on the left, one sees a mass planting of about a hundred Mollis azaleas. On the right are plants of a number of the old standard rhododendron varieties, and still further to the right a path leads off into the partially developed peninsula area.

Crossing the peninsula, one approaches the bridge leading to the island itself. At this point numerous waterfowl are usually in evidence. Mallard ducks with their families, and other species native to the area, have developed a very friendly attitude toward visitors,

who frequently feed them from the bridge. Occasional nests of these supposedly wild ducks are found in the mulching material around the rhododendrons.

From the bridge, to the left, can be seen the rock garden with some of the larger plants, on the high ground beyond, visible above it. Still further to the left is the cool house, blending admirably into the surrounding trees. These trees, of Douglas fir and other native species, add a great deal to the natural attractiveness of the island. Many are 18 inches in diameter at the base and provide not only the dappled shade that is needed but the rugged, furrowed trunks offer fine contrast to the smooth green of the rhododendron leaves.

The island itself rises perhaps 12 to 15 feet above the surrounding water. This permits the trees to extend their roots down where water is always plentiful, and so they do not compete so seriously with the more shallow rooted rhododendrons. The soil is a fertile clay loam, well adapted to rhododendrons and most other horticultural plants.

The larger rhododendron specimens are mostly to be found in the northern third of the island and especially in front of the cool house where there are representatives of many of the better horticultural varieties. At the south end of the island there are groups of species, especially of the Triflorum Series, and on the east side a large area devoted primarily to azaleas. At the present time the azalea collection contains representatives of the important groups but is probably not as complete as the collection of rhododendrons of the other series. One large bed devoted to new varieties from Pacific North west breeders is rapidly being filled with some very fine things.

Partly because of the favourable climate of the Portland area, where the winter temperature seldom goes much below 15° F., and summer temperatures are not too high, plant growth has been very satisfactory. True, there was a freeze in early November 1955, which eliminated some of the large-leaved species, but that was unusual, and plans are made to re-establish the species which were killed. The rainfall in Portland is mostly concentrated during the winter months, and so means of supplying water artificially have been provided for use during the summer. The plants, in large beds, have been mulched with sawdust, granulated fir bark, or other suitable material.

The exact number of plants, and the exact number of species and horticultural varieties, in the garden at any one time, is a little difficult to determine because changes are constantly being made. At the present time there are about 3,000 plants, mostly of blooming



AMERICAN RHODODENDRON SOCIETY'S TEST GARDEN, OREGON

FIG. 1—Path through the varieties of *R. Loderi*



Photos, Dr. J. Harold Clarke

FIG. 2—Path leading to the footbridge on the island



FIG. 3—Path through the Azalea Section of the Rhododendron Garden



Photos, Dr. J. Harold Clarke

FIG. 4—Azaleas accent a path junction

size. This includes approximately 300 named varieties, and 225 species. Practically all of the series are represented. There would be little point in trying to enumerate the outstanding rhododendrons. There are some very fine plants of named clones of the Naomi group. Several forms of Loderi seem to be very happy in this environment. Some of the *R. augustinii* selections are rather outstanding because they are good forms and because they are well displayed along the path at the end of the island. Very early in the spring, plants of *R. sutchuenense* var. *geraldi*, and a few days later, *R. calophytum*, make a magnificent sight. Throughout the year there are either plants in bloom, plants showing beautiful autumn coloration, or beauty of unusual foliage to lure the garden enthusiast.

This Test Garden, established before there were Chapters of the American Rhododendron Society, began as a Society, rather than as a Chapter, project. In view of its origin and extent the Directors of the Society have voted to consider it as the National Test Garden. There are also official A.R.S. Test Gardens in other cities, which are maintained by some of the sixteen local Chapters. It is true, of course, that Portland Chapter members have done the actual work in this garden, and no American Rhododendron Society funds, derived from members' dues, have been used in its development. Some contributions were made from other areas at the time the cool house was constructed, but, in general, the funds have come from Portland Chapter members.

In the natural course of events, if the plantings are extended as rapidly as they have been in the past, the entire island and peninsula area will, within a few years, be planted to capacity. Already some plants, presumably planted at reasonable distances, have grown to such an extent that they have had to be moved so they may have more space.

A portion of the area is used as a Test Garden for new American hybrids. Here plants are grown for observation and judging to determine if they are worthy of the Test Garden Certificate, the highest award the American Rhododendron Society confers on plants.

Obviously an area as large as this without a variety of plant material might be somewhat monotonous, especially when the rhododendrons are out of bloom. The fine stand of trees originally on the island helps to relieve this situation but other ornamental plants have not been excluded. There are several clones of magnolias, several types of Japanese maples and other appropriate woody plant material. Bulbs are being used in strategic places to give

colour, variety, and accent early in the season. The landscaping and development of this area with voluntary labour is a big project. However, if it develops as well in the next few years as it has in the past, it will establish even more firmly its claim to being one of the most important beauty spots of the City of Portland, and of the Pacific Northwest.

Portland has long been known as the "City of Roses". As the Test Garden and its beauty attracts more visitors, Portland should become known more and more as the "City of Rhododendrons".

A SYMPOSIUM
AIMS IN BREEDING
RHODODENDRONS INCLUDING
AZALEAS

LORD ABERCONWAY

Bodnant, Denbighshire, North Wales

When I learnt of this symposium, and was asked to contribute in the light of our past experience and future plans at Bodnant, my pleasure at the prospect of reading, in the contributions of our rivals, as much as they might feel inclined to divulge of their plans and intentions, outweighed my natural laziness as a writer.

There is undoubtedly a vast field uncovered in the hybridizing of rhododendrons. Much has been done, but in, as yet, comparatively narrow channels. For instance, vast numbers of hybrids, stretching back through many generations to reach the species, have been made from the earlier-flowering red elepidote rhododendrons; such hybrids mostly have, as their ultimate species stock, *barbatum*, *thomsonii*, *forrestii* var. *repens*, *haematodes*, red *arboreum*, and other related species. Similarly, red hybrids of *griersonianum*, and of *elliottii*, *facetum* and *eriogynum*, have been made in great numbers. I rather doubt whether such strains are capable of much further improvement. Certainly, efforts in this direction will be less rewarding than the breaking of fresh ground.

The same, too, can be said of the pink and the white hybrids of the *Arboreum* and *Fortunei* Series.

The only exception to this principle is, in my view, that more can be done in crossing the *Forrestii* subseries with other species or hybrids of the *Neriiflorum* series or with *aperantum*: really low-growing free-flowering plants, different from each other in foliage and in shape and form of truss and bell, will always be welcome in any garden, and there is room here for variety.

So far I have been writing mainly of the crimson or scarlet elepidotes. The very deep reds, maroon or burgundy coloured, can undoubtedly be developed further with advantage, based primarily on *didymum* and *haemaleum*. It is a pity that the deep plum coloured

variety of *cerasinum*, with its fine waxy sheen, has so far proved a poor parent.

Indeed it is surprising how many fine species, when used as either seed parent or pollen parent, not merely show recessive as opposed to dominant characteristics, but produce downright poor offspring. *R. irroratum* has been most disappointing as a parent, and I have yet to see a hybrid of *yakusimanum* worthy of its fine parenthood. In fact many charming species remain practically unused as parents. For instance *roxieanum* with its pointed collar of leaves and its tight truss of deeply blotched flowers, might produce some attractive offspring. One looks forward to seeing it crossed with, for instance, *calophytum*, *griffithianum*, *morii* (itself a good subject for similar treatment) and a white *arboreum*.

In the field of yellow elepidote hybrids much ground remains to be covered. Wonderful hybrids have been made based on *campylocarpum*, *wardii*, *caloxanthum*, and similar species, and in this direction no great improvement can be looked for. But species like *wasonii* and *lanatum* have, so far as I know, seldom if ever been used as parents. These crossed with *wardii* and *campylocarpum* and their hybrids should give worthwhile results.

I now turn to the lepidote hybrids. Here, surprisingly little has been done, apart from hybrids of the Cinnabarinum and Maddenii series, and hybrids between *augustinii* and blue Lapponicums.

The Triflorum series surely lends itself to much more intensive efforts than have been devoted to it. Hybrids of *oreotrephes* and *yunnanense* have been made with the Cinnabarinum Series, and some cross-breeding within the Triflorum Series has been done. Some of the loveliest of the Triflorums are those, deep wine coloured, of the Polylepis subseries, such as *amesiae*, *concinnum*, *polylepis* itself, and particularly *pseudoyanthinum*. These could well be interbred, or crossed with *cinnabarinum* var. *roylei*. And there are charming small lepidote rhododendrons, deep plum coloured or purple, such as *saluenense*, *calostrotum*, *baileyi* and *campylogynum*, and the varieties of the latter, *cremastum* and *myrtilloides*, that would well hybridize with the Polylepis subseries to make a lower-growing range of plum coloured and deep purple lepidote rhododendrons. Again, hybrids between the polylepis subseries and the deep purple-blue Lapponicums such as *russatum*, *ravum* and *cuneatum*, should make a race of plants similar in form and habit, but dissimilar in colour, to 'Bluebird', 'Blue Tit' and 'Blue Diamond'.

The same principle can be applied to both the white Triflorums and the yellow Triflorums. *R. lutescens* has, indeed, been extensively

and successfully crossed with a wide variety of other rhododendrons, but, as it flowers early, its potential mates are indeed limited, unless they are forced. *R. bauhiniiflorum* and *ambiguum* on the other hand could well be crossed with each other and with the yellow Lapponicums, *muliense*, and *chryseum*. Yellow and red when crossed make orange: possibly a yellow Triflorum crossed with the pink *davidsonianum* might produce something quite novel. *R. davidsonianum* in turn, crossed with the less common pink variety of *hippophaeoides* should give a pleasant result. It is indeed surprising that the best pink form of *davidsonianum*, grown originally both at Caerhays and by Mr. MAGOR, should have been so little used for hybridizing. Admittedly, pink is a risky colour to mix, and seekers after novelty who crossed *davidsonianum* with, for instance, *augustinii*, would surely spoil two splendid parents.

Finally, in the miniature field there must be great potentialities in hybridizing within and between the Lapponicum, the Saluenense, the Campylogynum, the Lepidotum and the Anthopogon Series, either by matching colour fairly nearly, and hoping to get the best qualities of both parents as to form, habit and floriferousness, or else by boldly experimenting with colours.

But I shall have little sympathy with anyone in due course who comes sadly to show me the result, in terms of wasted effort and hideous flower, of putting these ideas into practice.

* * *

Mr. F. E. W. HANGER, V.M.H.
Curator, R.H.S. Gardens, Wisley

All rhododendron crosses should be the subject of much thought, nothing should be done haphazardly or in a curious frame of mind. When using species or hybrids as parents no trouble should be spared to obtain the best possible forms for hybridizing. A breeder must possess a sound, complete knowledge of the plants she or he is handling. This must include acquaintance with their habit, hardiness, colour and good lasting qualities and even their faults or limitations, for it is by the betterment of these failings that improvements are produced.

With between 700 and 800 species described in the *Rhododendron Handbook*, the possibilities are innumerable and careful observation will reveal the fact that less than a quarter of these have been used for the production of new hybrids. I must admit that I, personally,

am very partial to primary crosses between species, but primary hybrids only open the door to greater expectations from successive generations of possibilities.

Back crossing can be most successful, for example at Wisley *R. 'Fusilier'* (*griersonianum* \times *elliottii*) was re-crossed with *R. elliottii* the result being *R. 'Beefeater'*, awarded a First-class Certificate at Chelsea in 1959 and the Reginald Cory Memorial Cup for 1958, which is awarded to encourage the production of hardy hybrids of garden origin. Again, *R. 'Tally Ho'* (*griersonianum* \times *erogynum*) was back crossed with *R. erogynum* resulting in *R. 'Rozenkavalier'*, which received the Award of Merit on June 8, 1959.

It must be remembered that the trusses of *R. elliottii* and *erogynum* are very full with many more flowers per truss than *R. griersonianum*, and when the two are mated it is highly probable that the resulting hybrid will carry lax trusses with fewer flowers, but back crossing rectifies this fault and, in the cases quoted, improved the colour, making a truer intensified red.

Intensification of colour is another important aim in the production of better rhododendrons. For example, the hardy hybrid, *R. 'Adriaan Koster'* (used as the female plant), crossed with a very fine yellow form of *R. litiense*, has produced the Wisley family of *R. Moonshine*, '*Adriaan Koster*' being creamy white with pale yellow centre (and of good plant form) mated with the yellow *litiense* produced these outstanding hardy, good yellow hybrids, the hardness originating from '*Adriaan Koster*' and the colour of yellow from *litiense*.

The breeding of hardy medium-sized rhododendrons for the everyman's garden to withstand full sun must be the goal of the future and here *R. yakusimanum* is a species with all the qualities to attain this ambition. However, care must be taken to assure that the wonderful characteristics of *R. yakusimanum* are not lost by thoughtless crossing.

This everyman's rhododendron must be hardy, compact and dwarf in habit, free and late flowering, with fine upstanding, well formed trusses of flowers. *R. yakusimanum*, of the Ponticum Series, has all these qualities, giving every possibility of creating a new race of rhododendrons. Used as the female seed-bearing parent, the progeny will retain the dwarf, compact habit and also flower at a very early age (some crosses as early as two and a half years from seed).

The betterment of such an outstanding species for garden purposes is very difficult, but a variety of colour is welcomed and can

be attained if careful thought is given when hybridizing with other hardy rhododendrons which have the necessary qualifications.

At Wisley approximately fifty crosses have been made between such parents with very promising results, so promising that the Rhododendron Trials Committee, when visiting Wisley to judge the Hardy Rhododendron Trials, selected six as worthy of inclusion in the trials.

We have an outstanding species of the same Series (Ponticum): *R. Chrysanthum*, here at Wisley. It is a plant 4 feet in diameter and not more than 15 to 18 inches in height, being perfect in shape and rivalling *R. williamsianum* in attractiveness of form. The flowers are deep cream yellow, but unfortunately open about the second week in April, which makes them susceptible to early spring frosts. This particular plant has been hybridized with various other later-flowering yellow species and hybrids to improve the colour, hoping to produce yet another new race of hardy rhododendrons for planting in full sun for garden purposes.

* * *

MAJ.-GEN. E. G. W. W. HARRISON, C.B., C.B.E., M.C.
(*St. Tudy, North Cornwall*)

When I was asked to write on my aims in breeding rhododendrons I began to realize just what little purpose there had been in my methods, and how greatly my efforts had been conditioned by chance and opportunity, and the whim of the moment. True, I do study the Rhododendron Studbook, and that can give ideas, and reduce some of the risks and pitfalls, but that is rather a different matter to the pursuit of a definite and settled policy.

Inevitably there are some parents to which one is especially attracted for some reason or another. *R. williamsianum* is such a one for me because its progeny are almost invariably suitable for a small garden; they are of good habit, and have attractive and distinctive foliage; when crossed with a red, white, or yellow the resulting colour is usually clear pink, devoid of blue. On the other hand, there are not many flowers to a truss in its hybrids, and if you look at the forty-six registered *williamsianum* crosses you will find only three have secured an A.M., and not one an F.C.C.

R. callimorphum ♀ × *williamsianum* produced a typical hybrid—a rounded, level bush, leaves dark and cordate, flowers a clear pink, with up to nine flowers in a truss, the flower being $1\frac{3}{4}$ inches across and $1\frac{1}{2}$ inches long, and the plant very floriferous.

I was much attracted by the cross 'Barclayi' \times *williamsianum* ♀, which I saw at Lamellen, and so did the same cross using 'Barclayi' as the seed parent. The result was interesting in that of the six plants that have so far flowered, each has been either a deep red or a clear shell-pink, and no flower has shown colour mid-way between the parents. There are up to eight flowers in a truss and the flowers measure up to $2\frac{3}{4}$ inches wide and $2\frac{1}{4}$ inches long. Plants with dark flowers have darker foliage, and in the case of two of them the young foliage is as deeply bronze as I have ever seen.

The shape of both flower and truss in some forms of *irroratum* are to my mind very beautiful, and the same may be said of *lacteum*, but neither of these species has been extensively tried as a parent, nor have they been very successful, though *campylocarpum* \times *irroratum* is a beautiful plant, and 'Dr. Stocker' \times *lacteum* is outstanding. I have crossed *irroratum* with *williamsianum*, with ('Barclayi' \times *williamsianum*) pink form, and with (*lacteum* \times *sinogrande*), but the plants have not flowered yet.

'Lady Chamberlain' is perhaps one of the best examples of crossing a hybrid with one of its parents, and I wonder whether this technique should not be further exploited. *R. augustinii* \times 'Blue Tit' has given me some beautiful garden plants, all slightly different in colour, size of flower, or number of flowers in a truss. 'Blue Tit' crossed with *impeditum* has given a small, well shaped, rounded bush with star-like flowers of excellent colour in one or two plants.

R. griersonianum has been so extensively used that it is not easy to find another species flowering at the same time that is likely to produce an outstanding hybrid with it. But the *griersonianum* hybrids have naturally not been so extensively used and I was pleased with the cross 'Tally Ho' ♀ \times (*griersonianum* \times *kingianum*). In this batch the flowers are all close to the beautiful *griersonianum* red, but the shape of truss and the number of flowers in it, differ widely. The average is twelve to fourteen flowers in rather a loose truss, but one plant produces a tight truss of nineteen flowers as its best effort to date, presumably following more closely its *kingianum* grand-parent.

R. concatenans is only recorded as a parent in ten crosses, but 'Trewithen Orange', 'Alison Johnstone', and 'Peace' are outstanding children, particularly I think 'Alison Johnstone' as a garden plant. My trial of *concatenans* with *oreotrephes* has not produced an outstanding plant; it is more tree-like than 'Alison Johnstone' or 'Peace', and the flower is not nearly as good. I have

tried it too with *augustinii* and *chasmanthum*, but it is too early to judge the result.

R. euchaites has only nine registered progeny as opposed to the twenty-four under the parentage of *neriiflorum*. Crossed with another good red an excellence of colour seems such a certainty that I wonder *euchaites* has not been more used. My cross with 'Apache' has corrected that plant's floppy habit, and the result is a dense rather fastigiate bush; the flower is excellent in colour, but not outstanding in size, and the truss is the shape of *thomsonii*. The cross with *beanianum* is again outstanding in colour, but the size of flower and the number of flowers in the truss are disappointing; the plants are not fastigiate. *R. euchaites* crossed with *thomsonii* has given well-shaped plants, fastigiate in habit, with dark foliage with mid-rib and veins in some instances a strong red colour, but there has been no flower yet.

I wonder whether we try the experiment of self-pollinating a really good hybrid frequently enough. It is such a simple way of obtaining a number of plants on their own roots, all differing a little from one another, and in my very limited experience nearly all of them may be good. From seed collected from the original Lamellen 'Damaris', out of six plants that have flowered, only one was a poor one. None was as good in colour as 'Damaris' itself, but in every other respect the flowers and trusses compared most favourably with the parent. I have repeated the experiment with other outstanding hybrids, but the plants have not flowered yet. It would be interesting to know from the experts what are the chances of a successful crop of plants.

The crossing and raising of rhododendrons is such a simple and fascinating pastime that I wonder more amateur gardeners do not practise it. It may be difficult enough to raise a first-class plant, but it is easy enough to raise something that gives one pleasure. I think that if some general hints of guidance were given it would encourage more people to try, and so with very limited experience I start the ball rolling:

- (a) The progeny of two closely related species can be visualized with fair accuracy, and they will not differ much from each other.
- (b) Widely differing parents will produce a crop of plants that differ widely from one another.
- (c) The crossing of two good reds will produce progeny of a good red colour almost with certainty.

- (d) The progeny of a red crossed with a white, or near white, is usually most disappointing in colour.
- (e) The crossing of a yellow with a white or pale pink is enhanced if there is a blotch in either parent.
- (f) Certain parents mark their progeny very strongly in some particular, whatever the other parent may be, e.g. *williamsianum* and *orbiculare* for shape of leaf and habit; *cinnabarinum* for shape of flower; *thomsonii* for shape of truss; *lacteam* for leaf formation; *arboreum* for shape of truss.

I imagine a long list of likely trends could be drawn up which would be of great value to those interested in hybridization.

* * *

COL. SIR JAMES HORLICK, BT.
Isle of Gigha, Argyll

As my efforts at crossing rhododendrons ended in 1940 I am afraid that my attempts will be of little interest to anyone wishing to start nowadays. For although I started to grow rhododendrons only some thirty-four years ago the situation today is so entirely different as to be almost unbelievable.

In modern parlance, when I started in 1926 rhododendrons, with the exception of the commercial hardy hybrids, of which 'Pink Pearl' may be taken as a particularly lovely example (she was the only one I had ever heard of), were not on the map so far as the general public were concerned. I was one of them, for I only started to take an interest in gardening in 1925 when remaking my garden at Sunninghill and so neither knew of nor personally any of the big names in the rhododendron world, that handful or more of amateurs who grew the species and certain hybrids in big gardens spread throughout England, Scotland, Wales and Ireland.

It was at this moment that I had a wonderful piece of luck. MR. LIONEL DE ROTHSCHILD had bought MR. LOWINSKY's magnificent collection at Tittenhurst, Sunninghill, and had commissioned MR. GOMER WATERER of Knaphill to sell the surplus. Tittenhurst was straight across the road from me and from the moment I entered that garden I became a rhododendron fan. I could not believe my eyes. My Head Gardener then was an old boy called NYE, of the old school, fustian and a bowler hat, a first-class propagator and a grand plantsman. We selected plants, selected their sites, dug immense holes, opened them up, inspected them and if all right, lifted them and they were in in half an hour, surrounded by wads of good sound

stuff. Big *thomsonii*, *barbatum*, 'Shilsonii' and so on, as well as a number of small *barbatum* \times *discolor* hybrids—they all lived, we never lost one.

MR. GOMER WATERER was a wonderful help to me both in advice and in getting me plants I wanted such as *Loderi*, *rex*, *campylocarpum elatum* and, wonders, two *griersonianum* which I kept under glass. Then I bought some of MR. SLOCOCK's lovely *campylocarpum* hybrids and some of the best Dutch hybrids.

Meanwhile, at the Rhododendron Shows, NYE and I inspected the species and later hybrids and heard all about hybridization, so we decided to try our hands at it—needless to say, we knew nothing of lepidotes or elepidotes and crossed them freely to start with.

We started in 1928—eight crosses, four of which materialized—*Loderi* \times 'Langley Park' was No. 1; alas, it has disappeared! I lost a number of plants during the war, as did most people.

I do not think we had any particular plan but with occasional diversions we stuck to *thomsonii*, *barbatum*, 'Shilsonii' *euchaites*, *campylocarpum elatum*, *Loderi* and *griersonianum*, and very lucky we were considering how ignorant we were, for I have over fifty good hybrids of my own in my Scottish garden and I lost over twenty others in an accident just after the war. The biggest number of crosses ever done in one year was in 1932, when we did sixty-seven—only three worth while—whilst in 1931 we did thirty-one, of which six are alive and named.

In crossing I prefer to use at least one species, although sometimes one succeeds with two hybrids. I have one beautiful one 'Glory of Athlone' ('Earl of Athlone' \times 'Glory of Leonardslee') but I think it is very chancy work.

So many angles and facets must be considered when contemplating a cross—colour, habit, hardiness, size amongst other things. NYE and I produced one or two dreadful colours, plants which had to be burnt immediately.

It always amazes me what very different plants can appear from one seed pod. As an illustration. I crossed *griersonianum* with 'Loder's White' and raised twenty-five plants. Twenty-three were completely worthless, one was a pretty thing and one was a really good rhododendron, which I named 'Flamingo'.

To everyone who is embarking on this fascinating occupation there will come that thrilling moment—the first of one's own hybrids to flower—and it really will not matter much whether it proves to be a dud or a future F.C.C.!

*

*

*

CAPTAIN COLLINGWOOD INGRAM, F.L.S., V.M.H.

Benenden, Kent

Many years ago, I believe it was sometime in the late twenties, J. C. WILLIAMS gave me some seed of a cross he had made between *R. auriculatum* and *R. griffithianum*—that very handsome hybrid which was subsequently named 'Isabella' by G. H. LODER. On reaching maturity all the plants raised from this seed have borne exceptionally large, lily-shaped white flowers with a delicate scent. Selecting the finest of these seedlings for a mother plant I have obtained from it a number of very promising hybrids among which are some that have a late flowering form of a LUDLOW and SHERRIFF *R. wardii* as their pollen parent. It is upon these that I am hoping to obtain a really large-blossomed yellow variety—an ambition the realization of which has hitherto eluded me.

If I had my time over again I would, when choosing potential parents, always bear in mind the desirability of a compact and shapely inflorescence: in my opinion far too many of the much-vaunted varieties now in general cultivation are spoilt by their loose and rather floppy flower-heads. Another of my aims would be the creation of a race of rhododendrons that would combine hardiness and floral beauty with a capacity to withstand the long dry spells that are sometimes, if all too rarely, experienced during the summer months in the eastern counties of England. For this objective one of the species I would certainly employ is *R. moupinense*. Possibly because of its epiphytic habits in nature, I have found this rhododendron by far the most resistant to drought conditions in my garden. A fault which would, of course, have to be overcome is its exceptionally early flowering season, a failing which, in my climate at any rate, nearly always results in its blooms being damaged or completely destroyed by late spring frosts. This disability has to a great extent been eliminated in 'John Marchand', a charming and very floriferous cross made with *R. sperabile*. This hybrid always flowers several weeks later than its seed parent and therefore usually escapes frost injury. In this product of an alliance between a lepidote and an elepidote species, a combination which is supposed to be difficult to achieve, we have, perhaps, a stepping stone towards an entirely new race of drought-resisting rhododendrons. As 'John Marchand' has already set seeds when crossed with *R. wardii* I can see no reason why it should not prove equally compatible with other elepidote species. In view of my age proof of this assumption will have to be left to others.

*

*

*

MR. MICHAEL NOBLE, M.P.
Argyll, Scotland

Anyone today who starts making hybrids has, fortunately, the experience of those who have been working on this fascinating line, for the past twenty-five years, as a guide. It is possible without great risk to follow two plans. The first and least adventurous is to follow the successes of past growers and, provided good forms of species or hybrids are used, it is a relatively quick and cheap way to get a large quantity of good garden plants. We have made a large number of crosses with *R. elliottii* or *R. griersonianum* as the parents, which are not very original, but which will, we hope, produce some good reds, particularly as with most of our crosses we have kept to the same colours in both parents. We found this policy paid best with our earlier azalea crosses: it gave more consistent plants, which is important if one has not the staff nor the nursery space to grow many thousands of seedlings, many of which ought to be discarded when they flower.

We know that we cannot achieve the results which Bodnant or Exbury have done and we have therefore tried, as our second plan, to widen the existing field of hybrids by rather specializing in the tender species. Nearly all our present plans are based on crosses with one of the Maddenii Series as one parent.

It might well be argued that it is unlikely that we shall improve on the parents, but there are some things worth pursuing. Most of the Maddenii Series, and particularly some of the most beautiful, are not elegant plants. Almost all of them are on the borderline of hardiness. We hope to improve the hardiness and the shape of the plants by crossing with *burmanicum* and *ciliatum*, for example, and there are opportunities for producing some fine yellows and perhaps good pinks. If shape can be improved, hardiness and stamina increased and scent maintained, we may, we hope, give some pleasant plants to gardeners on the west and south coasts.

* * *

MR. EDMUND DE ROTHSCHILD (*Exbury, Hants*)

The International Rhododendron Register recently compiled by DR. H. R. FLETCHER—a long and arduous task—made me realize the amount of hybridizing that has been done since the First World War. A mere estimate is about 10,000 rhododendron and azalea clones registered to date, and probably an equal number exist which have not yet been recorded.

How many of these I wonder are the result of a carefully thought-out breeding programme? Not very many I fear. My father once told me that any worth-while hybrid must be an improvement on at least one of its parents but preferably on both, otherwise it should be destroyed. It is not easy to set a standard as high as this, but unless some criteria are set I can foresee DR. FLETCHER's register being published in many volumes.

What then should one attempt to do in crossing a rhododendron? Many tell us they wish to prolong the flowering period. My father was continually working to that end and he had some success, but I wonder if this is really worth while. We have rhododendrons from Christmas until the end of May and early June in abundance. Then a few continue through the latter part of June and July. Some of these late hybrids can be rated fairly high, but in the strong July sun they do not seem to have the beauty and certainly not the excitement of the mid-season rhododendrons and in a drought period, such as we have just experienced, they look anything but happy. In July we have our roses, geraniums, herbaceous and bedding plants and so many other flowers with intense colours that the softer hues of spring flowers like rhododendrons are to a large extent paled to insignificance. We all like daffodils, but would we think them so wonderful if they flowered in mid-summer? Personally, I believe that the existing flowering period from January to the end of June is long enough.

Rhododendrons are now becoming popular for use in small shrub gardens and therefore there still remains much work to be done in producing the lower growing compact type of plant such as the *williamsianum* hybrids.

Perhaps it is for this reason that many breeders have been using *R. yakusimanum* as a parent, but alas from our experience at Exbury this species, although one of the most beautiful of all, is not proving a good parent. In many crosses of this plant, so far we have found nothing worth registering that has flowered and therefore we have little faith in it as a good parent, especially if you bear in mind that the hybrid must be an improvement on at least one of the parents, and it certainly will have to breed a most wonderful hybrid to do this.

R. hyperythrum may be a good parent. We have a promising batch of seedlings from this crossed with 'Crest' (Hawk). Perhaps several good hybrids can still come from *R. souliei* and the same applies to *R. wardii* and *R. fortunei*, but wherever possible one must make sure a good form is used, particularly in such a variable species as any of the three just mentioned. For the next few years we shall be

flowering hybrids from R. 'Crest' (Hawk). From the few that have already flowered, the seedlings show great promise and it might also be a good idea to make the cross of R. Hawk again. My father made the original cross quite early in his breeding programme and then much later remade the cross. He never lived to see this result. R. 'Crest' is from the later hybridization and did not flower until about 1954. There were only about ten plants from this batch; all good and all totally different from the original Hawks. I wonder if he used the pollen from the same parent plants for each cross or whether he selected different forms. There is one thing certainly worth remembering and that is that in the seed pan it is not always the biggest and most vigorous of the seedlings that results in the best flower.

As there are now so many half-hardy hybrids in cultivation we are concentrating on the more hardy type and to this end have remade R. Naomi. Some of the seedlings have already flowered and we are confident that when selected we shall have some superior flowers to this already well-known cross.

With so much emphasis on rhododendron hybrids, we do tend to forget the species that have given us these beautiful children. Rhododendron hybrids are planted in most gardens today and often in large numbers. How often are species sought after? However good the hybrid is, to me it somehow seems to lack that subtle quality so often apparent in a species.

*

*

*

SIR ERIC SAVILL, K.C.V.O., C.B.E., M.C., V.M.H.

The Great Park, Windsor, Berks.

It is a comparatively easy undertaking to breed hybrid rhododendrons, but it is not so easy to express on paper the objects which one has in mind when pollinating various flowers with pollen from a different species or from a hybrid clone. Hybridizers seem to have an instinct! Clearly, however, the object of hybridization is to aim at achieving a better flower than that of either of the parents, and a plant with perhaps a better constitution, more attractive foliage, and a plant which is capable of withstanding our climatic conditions; but this is to generalize. What are hybridizers really aiming at? Within the range of species rhododendrons most of the colours are well defined. There are whites, there are yellows, there are reds, there are mauves, and so on, but there are not, on the whole, pastel shades, or flowers where the base is of one colour, lightening

to another at the tips of the petals. It is clearly, therefore, one of the objects of hybridizers to achieve new and distinct colour shades. A primary cross between two species will give a fairly accurate and constant result in the flowers of its progeny and, again speaking generally—there are few primary crosses which have not already been made.

It seems to me, therefore, that in order to obtain new breaks in colour, in the character of plants, in foliage and in growth, hybridizers must now concentrate on crossing existing hybrids with species and alternatively selected hybrids with hybrids. The wastage from such crosses is enormous in that probably 95 per cent of the progeny are fit only for the bonfire, but the remaining plants are very often of outstanding quality.

At Windsor, we have been experimenting with this type of crossing for several years and, as a result, have now some most interesting and beautiful clones. For example, we have used the various forms of Jalisco ('Dido' \times "Lady Bessborough"); 'Jalisco Elect' \times 'Fusilier' has given us 'Winkfield', A.M. May 1958, a plant with an almost indescribable salmon-sunset colouring (the Rhododendron Committee's description being "pinkish-yellow freely suffused with pink, throat tinged crimson and crimson spotted, reverse stained mandarin red"). This clone has a good strong bushy habit with bold foliage, derived without doubt from the blood of its six species ancestors; *campylocarpum elatum*, *decorum*, *dichroanthum*, *discolor*, *elliottii* and *griersonianum*. Another such hybrid is 'Grilse', A.M. May 1957 ('Jalisco Eclipse' \times 'Fusilier') the flowers being an "undefined reddish shade of porcelain rose, with dark crimson spots in the throat and on the upper lobe". It sounds ghastly, but, nonetheless, is most beautiful, and unusual. Other crosses made along these lines include R. 'Isabella' \times 'Azor', which has produced a good late-flowering rhododendron, 'Cranbourne', A.M. June 1957, the colour of the flowers being varying shades of tyrian rose with large red blotch. Of interest in this cross is the fact that only this one clone, 'Cranbourne', was considered good enough to keep out of the fifty seedlings pricked out. We also have high hopes of R. 'Dido' as a parent and made a large number of crosses in 1951. Most as yet have to flower, but a plant of 'Dido' \times 'Grosclaude' produced one truss of flowers in 1958, and again in 1959, of a wonderful salmon-rose shade with a complete hose-in-hose flower, like a Canterbury bell, no doubt from the influence of the large calyx of both *haematodes* and *dichroanthum*, *haematodes* being one of the parents of 'Grosclaude' and *dichroanthum* one of the parents of



FIG. 5—R. 'Rosenkavalier' A.M. June 9, 1959. Shown from the R.H.S. Gardens, Wisley (see p. 163)



Photos, J. E. Downward

FIG. 6—R. 'Morvah' F.C.C. May 5, 1959. Shown by LIEUT.-COL. SIR EDWARD BOLITHO, K.B.E., D.S.O., of Trengwainton, Penzance (see p. 163)



FIG. 7—R. 'General Wavell' A.M. June 23, 1959. Shown by CAPT. COLLINGWOOD INGRAM, V.M.H., The Grange, Benenden, Kent (see p. 163)



Photos, J. E. Downward

FIG. 8—R. 'Fleece' A.M. April 21, 1959. Shown by MRS. R. M. STEVENSON, Tower Court, Ascot, Berks. (see p. 162)

'Dido'. Will it make a good rhododendron hybrid? It is too early to tell as yet. We await, with interest, the first flowering of 'Dido' \times 'Sarita Loder', 'Dido' \times 'Sunrise', 'Dido' \times 'Goshawk' and 'Dido' \times 'Helen Webster', among others.

That is one line of thought. There is another, which has already had interesting results; to produce small compact plants which will scale with the modern garden but which have largish flowers. For this purpose it is necessary to use as one parent such species as *R. yakusimanum*, *forrestii* var. *repens*, *hyperythrum*, and *williamsianum*, or dwarf hybrids such as 'Elizabeth' (*forrestii* var. *repens* \times *griersonianum*), 'Aries' (*thomsonii* \times *neriiflorum*) and 'Cilpinense' (*ciliatum* \times *moupinense*).

Several other hybridizers have been working on these lines, and quite a lot of the *yakusimanum* hybrids have been seen at the R.H.S. Halls from time to time. We have used *yakusimanum* with some of the smaller-growing yellow species and hybrids, with *souliei*, both the white and the pink form, and even with one of the Loderi clones. Many of these hybrids show great promise, and are attractive both in flower and foliage.

There seems to be ample scope yet for new plants in the rhododendron world, but unfortunately breeding is bound to slow down owing to the fact that there are now few people who can afford both the labour and the ground for growing seedlings on over a period as long as ten years in some cases, before the plants reach flowering age.

* * *

THE EARL OF STAIR, K.T., D.S.O., V.M.H.

Lochin Castle, Stranraer

Having been asked to write something on the subject of my aims in breeding of rhododendrons, azaleas and making hybrids, for a symposium of contributions by *English* Growers, perhaps although a Scotsman working with an English gardener, I may not be entirely disqualified.

I am blessed with the possession of a pretty extensive garden, in a reasonably temperate climate, constructed by one of my forebears about 250 years ago and revived, after complete neglect, and added to by my grandfather during the latter half of the nineteenth century. I have had a more or less free hand with it, but with a vastly reduced staff and finances for approaching the last fifty years. Naturally my continuous aim during that time, has been the endeavour to preserve

and, if possible, add to the beauty of the place and the collection of plants, trees and shrubs there. In this I have been most ably and zealously aided by my head gardener, MR. R. W. RYE, for the last thirty years, following seven years with R. FINDLAY.

As, in everything except the violent winds, we are particularly suited to the cultivation of rhododendrons and azaleas, we have devoted most attention to these. But as the climate agrees equally with brambles which, if left to themselves, would turn the whole place into jungle in a very few years, the fight against them is pretty continuous.

In my grandfather's time we got most of HOOKER's collection from the Himalayas, including a couple mentioned in his book which do not appear to have survived anywhere else: *R. nobile* and *R. batemanni*, which are now gigantic plants. In my time, assisted by the Royal Botanic Garden, Edinburgh, and many friends, we have added a very large number of plants from China and elsewhere, collected by FORREST, KINGDON-WARD, ROCK, SHERRIFF and others. Like many other folk, we have been trying to improve upon nature by hybridizing these, a most interesting but probably over-presumptuous ambition, as although many quite beautiful crosses have been achieved, only very few are really any great improvement on either of their original parents.

One of our objects was to prolong our already very long flowering season, beginning as it often has done, in October with the old hybrid *R. nobleanum*, which often bears flowers right through the winter. This is followed usually by one of HOOKER's *arboreum* type, *R. batemanni*, early in February, and a *dauricum* hybrid made by the late SIR JOHN STIRLING MAXWELL, I think this is *R. praecox* crossed again with *dauricum* ('Early Gem'). Almost as early, is HOOKER's *nobile*, a *campanulatum* type with large leaves and pink flowers.

For lateness, we began by crossing *R. eriogynum* with *R. diaprepes*, which were then the latest red and the latest white we had then flowered, to try to get a late pink. This is now (in late July) in full flower.

Not long ago I brought a flower of this up before the Committee for an award, but when I saw my specimen after a night in the train, on a table between a good scarlet hybrid and a lovely apricot coloured azalea, shown by MR. COLLINGWOOD INGRAM, I was horrified and quite surprised that it even received one vote—and that only for its lateness. Since then, however, I have seen it as a centrepiece of a stand at a show, surrounded by white *R. auriculatum* and other white flowers, where it certainly quite retrieved its reputation.

I am pretty sure, however, that a direct cross between a pure white and a red does not produce a pink which entirely satisfies me. We later tried crossing a cream-coloured Loderi with *griersonianum*, with which RYE was sufficiently pleased, to name it 'Lady Stair', but I have never been really satisfied with it. I suppose *R. griersonianum* has been used for crossing more than almost any other rhododendron, but in my humble opinion, although many of those made with another red parent are extremely good, very few—if any—are any real improvement upon *griersonianum* itself.

We have also been trying to get a really good yellow, generally using *R. lacteum* as one parent, but this has been most unsatisfactory. The few results which we succeeded in producing had the *lacteum* leaf but a washy, colourless flower.

R. johnstoneanum crossed with *R. chrysodoron* produced a fairly good yellow called 'R. W. Rye' but as it flowers in early April and late March and does not stand much frost, it is apt to get spoilt and easily loses its stamens. We are now awaiting the results of using *R. wardii* \times *R. chlorops* and *R. chlorops* \times *R. 'Hawk'*.

For reds, other people have made and named several of the crosses which we had been trying, such as 'Fusilier' (*R. facetum* \times *R. griersonianum*) which with us is a very strong-growing and quite hardy plant, but which in the exceptionally hot and dry weather here this summer had most of its flowers withered up by the heat when hardly open. The very late red hybrid which I rank highest is named 'Gwilt King' (*R. kingianum* or *zeylanicum* \times *R. griersonianum*). I do not know who made and named this, but I think we had tried it using a plant we grew here from seed that I took from a bush at Newara-Elia in Ceylon. I think that our most successful scarlet is *R. euchaetes* \times (*R. griersonianum* \times *R. haematodes*), which I call 'Review Order', so called from the perfect scarlet of a guardsman's tunic.

For a white, our 'Lord Stair' (*R. lindleyi* \times *R. taggianum*) has proved to be a very pure white trumpet of a lily-like description and very sweet smelling. This is probably just a little hardier than either of its parents and flowers freely in the open here. As it grows very upright and rather slender, we are trying planting it to grow up practically through plants of *R. 'Review Order'*, which is more low-growing and spreading and should offer some protection to the roots of the 'Lord Stair' as well as affording a perfect foil to each other's colour when they are in flower together.

Being of an obstinate as well as a persevering nature, I am still trying to bring off, what I am told is impossible, the crossing of

certain lepidote with elepidote species, but as I am well on in my eighty-first year, I can hardly expect to see the result of many more of our efforts, nor was this made more likely by some enthusiast, who dead-headed one plant of which we had endeavoured to fertilize the flowers this year, and had labelled the fertilized heads. This will not deter us however; although RYE also is not in his first youth either, we have hopes that those who succeed us may appreciate the results and carry on.

*

*

*

MRS. R. M. STEVENSON

Tower Court, Ascot, Berks.

At Tower Court in our very early days, my husband and I discussed first and decided upon crosses to be made, then I set forth to be the "busy bee". We aimed for the late-flowering in order to continue the flow of rhododendron blossoms—the same scheme applied to azaleas.

From our expanding collection of species we found the Fortunei Series most helpful, as also the subseries Parishii of the Irroratum Series; also Auriculatum Series along with the *R. griersonianum*.

Next we aimed for colour and how to improve upon certain shades.

At one period the fashion seemed to be for reds—we aimed here for the orange based reds and not for the blue reds; and last, but really most important of all, was to bring in hardier plants, so if we were working with a tender series such as the Parishii, I had to find the healthiest and most vigorous plant first, and then select the finest truss, either to use as the seed bearer or for its pollen; here we produced Rhododendron 'Red Cap' (*didymum* × *eriogynum*) and R. 'Romarez' A.M. (*griersonianum* × *kyawii*).

We also aimed for crossing in one colour; namely, a yellow with a yellow such as our R. 'Rima' (*valentinianum* × *lutescens*): 'Mozari' (*R. concatenans* × *R. ambiguum*); 'Electra' (T.C. var.) (*R. chasmanthum* × *augustinii*); 'Azamia' (*R. augustinii* × *rusatum* (*cantabile*)).

We often crossed choosing first class forms in a Series alone; namely, *augustinii* × *augustinii*, aiming to get the green eye, white style and anthers in order to show up as also better the blue. These are known at Tower Court as the T.C. trials—further example, *lutescens* × *lutescens*, and one out of our first batch named *R. lutescens* 'Bagshot Sands' received an A.M.

R. pseudoyanthinum \times *pseudoyanthinum*—by selecting the reddest we produced a rich plum or claret shade known at Tower Court as our A.1. form. We have a third generation in which we hope to have passed our A.1. form—*R. yunnanense* \times *yunnanense*, aiming here for the red blotch.

I maintain through selection and crossing our finest forms in a Series or species alone, its progeny became acclimatized and therefore hardier, we have a fine example of this.

In "The Species Collection" which has now been moved to Windsor Great Park, we had in the Fortunei Series one plant only of *R. diaprepes* F.11958, which looked, and was, very sick; my husband was afraid it would die, so he asked me to self pollinate it, to make sure it would be true *diaprepes*; this I did, the pods ripened and produced a tremendous amount of seed and eventually we planted the seedlings out; all are fine trees and extremely hardy—whereas the original *diaprepes* from this expedition were considered to be very tender; in fact we destroyed a whole batch of another lot of *diaprepes* F.27727 for the same reason.

I feel sure now if I had taken the trouble with this F.27727 number its progeny would have been the same as F. 11958. Incidentally our *R. diaprepes* var. *gargantua* A.M. was among my seed of F.11958.

I have often wondered why we never reset all the expeditions' seeds, aiming for acclimatization—presumably we had too much on hand with all the various expeditions and trying our hand at hybridization in our early days; furthermore, as our quantities of plants grew up we needed more and yet more room to house them all.

After having aimed for later hybrids I then had great fun trying to establish earlier ones—but the frosts usually beat me, particularly our cross R. 'Tessa'. I think I lost two years, but finally had a bright idea. We used to bring pot plants of *R. x praecox* into the house for indoor decorations, why should I not pollinate under cover? And so I did, using *R. moupinense*, which was still outdoors as the pollen parent, and at long last I produced 'Tessa'.

Our hybrid R. 'Polar Bear' was bred for a very different purpose; when we were creating, collecting and making the gardens we considered our north-east boundary too exposed, and because we were tired of battling with *R. ponticum* of which there were and still are many useful hedges, which were in those early days quite out of hand, we thought, why not have a hedge of something interesting, but it had to be fast growing!

Because we were so deeply immersed in rhododendron species, why not choose two species of tree form, but they must be of a neutral shade in order not to clash with any other plantings! In our enthusiasm we picked out *R. diaprepes* and *R. auriculatum* for both were white, our neutral shade—splendid. On went the good work, seed in profusion appeared, nursery beds were filled and from there, out went half a mile along our north-east boundary. In addition, other places for screening, then they grew and grew and soon flower buds appeared—we waited breathlessly, and lo and behold, white blossoms, heavily scented arrived at the end of July!—with no other competition! So *R. 'Polar Bear'* holds its own "Court".

And now this so-called hedge, when in full flower, looks exactly like a huge snow-drift.

Some breeders prefer to get a loose truss "firmed" and to sit upright and have no use for the hanging or loose types. I am unable to agree with this—for having spent so much time among our Species Collection, I feel nature has produced so many magnificent and various forms all superbly balanced in remarkable range of colour. There are only few exceptions, where one might say nature has made a mistake.

I can only think why we all strive to better nature by hybridizing is the thrill of having first selected the two parent plants, aiming for colour, form, early or late flowering, etc., and make believe to ourselves that we are far more clever than nature.

On the whole I feel that the grex of first crosses of the species usually turn out 99 per cent uniform—but second or multiple grex would find many variations, hence the ruling for clonal names being essential for furthering production.

Azalea crosses I think are more of a lottery.

Hybridizing has become a tremendous "game" and in my opinion far too many are being produced, only a few exceptions can be classed as good. I have already mentioned that the species are "balanced"; by this I mean the flower is in proportion to the set-up of the whole bush—colour tones perfectly with its foliage, the size of truss and individual flower is in uniform with its immediate foliage.

All these good points I feel and fear get lost, when man or woman steps in to be the "busy bee".

When hybrids arise, particularly from multiple crosses, I consider they are wholly out of balance and become gross with only a very few exceptions.

This does not apply in first crosses, for the characters of both

parents predominate usually, and many fine hybrids have been the result.

*

*

*

A NURSERYMAN'S APOLOGIA

MR. G. DONALD WATERER

The Knap Hill Nursery, Surrey

The nurseryman who hybridizes rhododendrons and who is obliged to sell the plants he produces, approaches the subject in a way which differs markedly from that of the private grower. Briefly summarized, his aims are: (1) vigour of growth; (2) beauty of flower and form; (3) the greatest possible degree of hardiness, and (4) ease of propagation by vegetative means. The private grower on the other hand is concerned chiefly with: (1) beauty of flower and form, and (2) hardiness in relation to his local environment.

Between the two wars, the private growers, using new species, sought to raise a new race of rhododendron hybrids which would in time replace the older hybrids raised by nurserymen. Many beautiful plants were produced and were acclaimed at the annual rhododendron shows, where, in a rarefied atmosphere, the nurserymen were apt to feel as any one might feel who dared to show a mongrel at Cruft's. Hybrids between species and hybrids which could boast a species as one parent were *de rigueur*.

Now, in an age when the private grower may himself be a nurseryman, the aims of the nurseryman are more widely appreciated. After all, what is the commercial value of a rhododendron, however beautiful, if it is not a good grower and if it will not stand up to weather conditions experienced in the small gardens, scattered throughout this country, where rhododendrons are so enthusiastically grown? The comical situation now arises in which the private grower who has become a nurseryman grows many of those old hybrids which formerly he scorned, having realized that their commercial value is still high.

The nurseryman is aware that if the private grower, years ago, with the wealth of new material which was at his disposal, had hybridized with the outlook of a nurseryman, the situation today would probably have been very different. 'Pink Pearl', still a best seller, would have been cast upon the rubbish heap. Indeed, it is quite extraordinary that her reign has lasted so long.

The marriages which are now being quietly arranged between the beautiful children of beautiful and delicate parents and the less

beautiful but more commercially sound offspring of a bygone age, will show that the hybridization of rhododendrons is still in its infancy.

Consider these examples of present-day needs, gleaned from remarks made mainly at the Chelsea Flower Show:

"I want to plant a rhododendron hedge. It must be really dense and bushy. It must grow like mad to six feet, but I don't want it to grow any taller. The flowers must be geranium-scarlet—I can't bear the least trace of blue in my reds. What do you suggest?"

"I yearn for a rhododendron as 'U' as *augustinii* and as ebullient as 'Fastuosum flore pleno', for a *very* cold garden in the Birmingham area. Is there such a thing?"

"I have an open grassy area which I want to surround with rhododendrons. I adore sun-bathing but for that, of course, one needs *absolute* privacy. I have seen a lot of exciting things in Cornwall such as Loderi and 'Cornish Cross', but I have come to the conclusion that they are either not quite hardy in my garden or that they are too leggy. It seems to me that the good old hardy hybrids are what I really want."

"Yes, it is *very* beautiful, but I can't afford a large plant and if I have a small one, I shall be dead before it even flowers."

"I am very fond of plummy colours and the flowers with huge gaudy blotches, but everywhere I go I see nothing but reds and the plants are often not growing very well. I think too many reds are a mistake. Who decides the colour of the day?"

Great emphasis is laid on the first of the nurseryman's hybridizing aims, namely vigour of growth. Owners of small gardens, either consciously or unconsciously, value good healthy foliage as highly as they value the flowers. The purely decorative qualities of rhododendrons are now closely linked with their functional value. The neighbour's back door or washing must be hidden, and if that can be done by planting something more attractive than laurel, so much the better.

The nurseryman must constantly look ahead and when a great many hybrids of one type are being produced, he must seek inspiration for another type of hybrid and forecast the needs of the public some years hence. He must be prepared to persuade the public to take an interest in the plants he is growing for them. The more

seedlings he produces the more rigorous he must be in the selection of those he wishes to propagate. A great enthusiast has recently raised fifteen thousand seedlings from one cross. With a look of defiant heroism he has stated that he intends to propagate only twelve of them. One wonders if perhaps three or two or even one of them would not serve his purpose better, however difficult the choice might be.

The Victorian nurseryman had the sense to bestow one name on each seedling they selected for propagation. If there were two such seedlings from one cross, each seedling was given a different name. It is now possible for two or more seedlings from one cross to bear the same grex or group name but not of course the same clonal name. When they are put on the market under the group name, purchasers who have ordered one plant under one name may be infuriated to find that they have received another plant which legitimately bears the same name. The full blast of their fury is brought to bear not so much on the raiser but on the nurseryman who is bold enough to sell plants which have been named in such a manner.

RHODODENDRONS IN THE ROYAL BOTANIC GARDEN, EDINBURGH

PART II

By H. H. DAVIDIAN, B.Sc.

WE now proceed to the Praecox Border which is an extension of the Rhododendron Walk towards the west. An outstanding feature is an exceptionally fine specimen of *Rhododendron galactinum*, 15 feet high and as much across, with good foliage and most attractive large trusses of white bell-shaped flowers. The plant is uncommon in cultivation, but is worthy of being widely grown.

A short distance further on, we come upon *R. trichocladum* (Farrer No. 876), 8 feet high, which covers itself with masses of funnel-shaped yellow flowers in May. Among the early flowering rhododendrons to be seen is a form of *R. sutchuenense*, 12 feet high and as much across. In March it provides a fine display of colour with its white bell-shaped flowers which are produced with great freedom. It is hardy in a sheltered position, but the flowers are apt to be destroyed by early spring frosts. The species was introduced into cultivation by WILSON in 1901 from Western Hupeh, China, where in woods at 5,000–8,000 feet, it grows up to 20 feet or more in height.

Special reference must be made to the uncommon *R. wiltonii*, of the Taliense Series, introduced by WILSON from Western Szechuan in 1904. It is 9 feet high, with dark green leaves, bullate above, covered below with brown indumentum, and is exceedingly charming when adorned in April or May with a profusion of pink flowers with a crimson blotch (Fig. 9). The plant is quite hardy, and is well worth a place in every collection of rhododendrons. We pass several fine rhododendrons which give delightful colour displays throughout the season. Across the path, a most graceful plant of *R. puralbum* (Forrest No. 10616—the type number) is of exquisite beauty with its pure white saucer-shaped flowers which are produced abundantly in May.

We now proceed to the new border, below Inverleith House, and here we find a large number of rhododendrons which were recently planted, including *R. wasonii*, *R. orbiculare*, *R. thayerianum*, *R. watsonii*, *R. bureavii*, and *R. venator*, all of which are flourishing in well-sheltered positions. Here also grows a small group of *R. japonicum*, a few feet high, which makes a great show with large,

widely funnel-shaped reddish flowers in May. The species is highly rated, and is one of the best of its Series.

Across the road leading to the View Point, the main attraction in May, is a group of *R. aberconwayi* (McLaren No. U 35A), 3–5 feet high, with saucer-shaped white flowers with a few crimson spots.

We leave the new border and walk up the hill towards the Copse. On the lawn, bordering the main road, we come upon a large group of *R. dauricum* var. *sempervirens*, 8 feet high. In March, when it escapes the frost it provides a blaze of colour with funnel-shaped deep rose-purple flowers.

COPSE

The Copse is situated towards the north side of the Garden, a short distance from the West Gate. Wide grassy paths divide it into several sections, and each of these contains many interesting rhododendrons. These provide a wealth of colour in the shelter of conifers and high holly hedges.

At the south side, there is a fine specimen of *R. lutescens*, a distinct member of the Triflorum Series. The beautiful yellow flowers, in axillary clusters, appear freely in February or March, but unfortunately, they are liable to be destroyed by early spring frosts. An attractive feature is the young growths, bronzy-brown in colour.

Across the path, we find a splendid plant of *R. cinnabarinum* var. *roylei*, discovered by HOOKER in the Himalaya in 1849. It is 10 feet high and as much across, very free-flowering and exceedingly attractive when laden with deep plum-crimson, tubular-bell shaped flowers in May or June. Further on, at the margin of the path, an exceptionally fine specimen of *R. concatenans* (Kingdon-Ward No. 5874—the type number) comes into view. This plant is 5 feet high, and is always greatly admired not only for its large, bell-shaped flowers of apricot colour, but also for the bluish-green young growths, covered with a glaucous sheen. Near by, among the many border plants, one of the finest is *R. valentinianum* (Rock No. 22302), 3 feet high, covered with a profusion of yellow flowers in March or April. The species is hardy in a sheltered position, and is worthy of being widely cultivated.

Proceeding to the west side of the Copse, the main feature is a plant of *R. yakusimanum*, of the Ponticum Series, introduced into cultivation by the late MR. LIONEL DE ROTHSCHILD. It is 3 feet high, with leaves fawn woolly beneath, and most charming young growths covered with a white indumentum. The white tinged pink flowers which appear in May, are of great beauty and attract attention. The

species is quite hardy, and should be a most valuable acquisition for every garden.

Towards the centre of the Copse, we come upon a beautifully shaped specimen of *R. wvarifolium* (Forrest No. 10292), one of the earliest of all rhododendrons to burst into bloom. It is 12 feet high and as much across, with remarkable young foliage, pale green above, covered with a white indumentum below. The species is quite hardy, but as it flowers in March or early April, a sheltered position should be provided.

The later-flowering rhododendrons include a perfect specimen of *R. wardii*, one of the finest of the yellow-flowered species. The plant is 8 feet high with rounded leaves and openly cup-shaped flowers which appear freely in May. The species is widely distributed in Western China at elevations of 10,000–14,000 feet. Among the several forms in cultivation, one introduced by LUDLOW and SHERIFF differs from the type in having a large crimson blotch at the base of the corolla. The Neriiflorum Series is represented here by several interesting plants. These include a particularly fine specimen of *R. neriiflorum*, 12 feet high and as much across, which covers itself to the ground with crimson flowers in April or May.

AZALEA LAWN

We now proceed down the hill to the Azalea Lawn which forms a conspicuous and spectacular feature in the Garden. Here we find masses of azaleas, mainly hybrids, 2–8 feet high, which provide vivid colour displays with an abundance of flowers in June and July. Quite apart from the beauty of their flowers, these plants are well worth growing for the attractive autumn colouring of the foliage.

At the east side, we find a large group of *R. viscosum*, up to 6 feet high, which makes a grand show when smothered with deliciously fragrant, narrowly tubular-funnel shaped flowers, in July. It is a native of the United States where it is known as the Swamp Honey-suckle, and was introduced into cultivation in 1734.

Further up the lawn, is a group of *R. arborescens*, also a native of the United States, from whence it was introduced in 1818. In June or July, it is extremely effective with its white or pink fragrant flowers, produced with the utmost freedom. It is 4–5 feet high, although in its native home it reaches 15 feet.

We now leave the Azalea Lawn, and as we walk towards the Peat Garden, we get a glimpse of a splendid specimen of *R. occidentale* growing at the margin of the pond. The plant is 12 feet high, and provides an admirable display with its pink, widely funnel-

shaped fragrant flowers in June. The species is perfectly hardy, and was introduced from the United States in 1851.

PEAT GARDEN

The Peat Garden which forms the northern border of the Woodland Garden, is situated a short distance from the East Gate. It consists of terraces, divided by paths into several sections, and these contain a large number of Chinese and Himalayan low-growing rhododendrons.

At the east side, along the margin of the lawn, the main feature is a plant of *R. impeditum*, compact in growth, 1½ feet high, which no one can fail to admire when covered with purplish-blue flowers in April. The species is very hardy and generally considered to be one of the best of its Series.

Across the path is *R. microleucum* (Forrest No. 22108—in part), the albino of the Lapponicum Series. It is a compact shrub, 1½ feet high, and provides a glorious display with its white flowers in April or May. The species is hardy, very free-flowering, and deserves the First Class Certificate which it received in 1939. Here also grows *R. imperator* (Kingdon-Ward No. 6884—the type number), discovered by KINGDON-WARD in Upper Burma in 1926 growing on granite cliffs at 10,000–11,000 feet. This is a prostrate spreading shrub, a few inches high, with large, single or paired deep pinkish-purple flowers which are produced so freely, that they completely hide the foliage. The species is hardy, but to obtain the best results some shade and protection from wind should be provided.

Among KINGDON-WARD's discoveries in Upper Burma, a particularly fine plant is *R. nitens*, of the Saluenense Series, 2 feet high, with deep pinkish-purple, widely funnel-shaped flowers. It is an extremely valuable plant in that it is a late-flowerer, the flowers appearing in July or sometimes in August.

Near by, along this border, we come upon a delightful plant of *R. hanceanum* var. *nanum*, of the Triflorum Series, compact in growth, 4 inches high. It is very free-flowering, and provides a mass of colour with its large, yellow flowers in April. The plant is hardy, easy of cultivation, and worthy of being widely grown. An extremely fine sight in April or May is a compact specimen of *R. russatum*, 2½ feet high, with deep purple-mauve, widely funnel-shaped flowers produced with great freedom. The species is fairly widespread in North and North-West Yunnan at elevations of 11,000–14,000 feet. Several forms are in cultivation, varying in habit and height, in leaf size, and in flower size and colour. The plant is very

highly rated, and should be in every collection of rhododendrons. Other noteworthy species include *R. scintillans*, 2 feet high, with deep blue-purple flowers, discovered by FORREST in North-West Yunnan in 1913, growing in open marshy pasture; and *R. stictophyllum* (Rock No. 24385) a compact shrub of 2 feet covered in April or May with deep rose-purple flowers.

Further along, across the path, is *R. tephropeplum* (Kingdon-Ward No. 6303), 3 feet high, which cannot fail to impress us with the beauty of its deep rose-purple flowers in April or May. It was discovered by FARRER in North-East Upper Burma in 1920, growing abundantly on rocks and cliffs at an elevation of 10,500 feet. The species is very variable and grows up to 5 or 6 feet high. It is quite hardy, and is easy to grow. We cross the glade, and near the margin of the lawn we find an exceptionally charming plant of *R. glaucophyllum* var. *tubiforme* (Ludlow & Sherriff No. 2856), a native of the Himalaya. This is a somewhat compact shrub, 3 feet high, and makes a wonderful show with its long tubular rose-pink flowers in April or May. The plant is quite hardy, a vigorous grower, and worthy of more general cultivation.

We now proceed up the glade to the upper Peat Garden, situated across the tarmac road. Here we find a large collection of low-growing rhododendrons, planted on peat terraces.

At the west side, an outstanding feature is *R. lepidostylum*, compact in growth, 3 feet high, discovered by FORREST in Western Yunnan in 1919. It is a remarkable foliage plant, with beautiful young bluish-green leaves covered with a glaucous sheen. In May or June it provides a fine display with its broadly funnel-shaped yellow flowers. The plant is hardy and should be included in every collection of rhododendrons. Further up the path, there is a delightful plant of *R. pumilum*, a prostrate shrub, 6 inches high, with pink bell-shaped flowers which are produced freely in May. The species is one of the smallest of all rhododendrons, and was discovered by HOOKER in the Himalaya in 1849. In cultivation it is hardy but should be given some shade and protection from wind.

Across the path, the main attraction is an excellent plant of *R. forrestii* var. *repens*, one of FORREST's trophies from North-West Yunnan. It is a creeper with dark green foliage, very free-flowering and exceedingly attractive with its large, single or paired crimson flowers in May. Although the species is hardy, it is difficult in culture. It is a slow grower, and many years are needed before it flowers freely. It should be pointed out that some forms in cultivation produce no more than a few flowers during the season.

The *Campylogynum* Series is represented by several specimens of *R. campylogynum* var. *myrtilloides*, compact in growth, 1 foot high, all of which flower profusely in May or June. The tiny bells, situated on long flower-stalks, vary in colour from pinkish-purple to plum-purple.

Along the border, near the main road, we find a remarkably fine specimen of *R. tsariense* (Ludlow & Sherriff No. 2766), compact in growth, 2 feet high, with leaves beautifully covered with cinnamon-brown wool beneath, and bell-shaped, white tinged pink flowers which appear in May. The species was discovered by LUDLOW and SHERRIFF in Southern Tibet in 1936. In cultivation it is hardy in sheltered positions, and is well worth a place in every collection of rhododendrons.

Near the margin of the lawn is a small group of *R. ludlowii*, one of the most interesting in the Uniflorum Series. These plants are 3-4 inches high, with large, bell-shaped yellow flowers appearing in May. LUDLOW and SHERRIFF discovered the species in South-East Tibet in 1936 at 13,500 feet. Although a slow grower, it flowers at a remarkably early age.

Other fine rhododendrons growing here include *R. intricatum*, 3 feet high, covered in April with pale lavender-purple flowers; and *R. pemakoense* (Kingdon-Ward No. 6301—the type number), a compact shrub of 1 foot, with large, pinkish-purple flowers produced in great profusion, in March or April.

At the east side, a conspicuous feature is a large plant of *R. williamsianum*, compact in growth, 4 feet high, which provides a glorious display with masses of pink bells in April. The young bronzy growths are most distinctive, but are apt to be destroyed by late spring frosts. The species was discovered by WILSON in 1908 in Western Szechuan where it is said to be of rare occurrence.

Here also grows *R. racemosum* (Forrest No. 19404), a compact shrub of $2\frac{1}{2}$ feet, with deep rose axillary and terminal flowers which are produced abundantly in April. The species is widely distributed in Western China at elevations of 7,000-14,000 feet. Among the many variants in cultivation, the small forms up to 3 feet are well suited for the Peat Garden and Rock Garden.

ROCK GARDEN

We now proceed along the winding grassy path to the Rock Garden, which covers an area of $2\frac{1}{2}$ acres. Here we find a galaxy of alpine plants from all over the world, including a very large collection of dwarf rhododendrons.

At the west side, we come upon *R. radicans* (Forrest No. 19919—the type number), a creeper which roots itself as it grows along the surface of the ground. The flowers are large, widely funnel-shaped, and dark rose-purple in colour. Although this hardy plant was severely damaged by heavy frosts last winter, it has now produced an abundance of vigorous new growths.

On the north side, among the many rhododendrons to be noted, is a perfect specimen of *R. leucaspis* (Kingdon-Ward No. 6273—the type number), compact in growth, 2 feet high, discovered by KINGDON-WARD in the Tsangpo Gorge, Tibet, in 1924 at 10,000 feet. The large beautiful white flowers appear freely in February or March, but are apt to succumb to a heavy frost.

Along the north margin of the centre area, an unusually attractive sight is a group of *R. camtschaticum*, a deciduous shrub of 9 inches, with masses of large, rose-crimson flowers in May. A remarkable feature is that the plant layers itself as it grows along the ground.

Special reference must be made to *R. nivale* (Cooper No. 3483), situated towards the centre of the Rock Garden. This is a small compact shrublet of 9 inches, with tiny leaves, very free-flowering, with widely funnel-shaped, pinkish-purple flowers. HOOKER discovered the species in the Himalaya growing on bare slopes of the mountains at 16,000–18,000 feet. The plant is very hardy, but is a slow grower and somewhat difficult in culture. Although very rare in rock gardens, it is worthy of being widely grown.

A prominent feature in the Rock Garden is a large group of *R. ferrugineum*, the “Alpine Rose of Switzerland” which gives one of the most delightful of all colour displays with masses of tubular-bell shaped, rose-purple flowers. It has the added advantage of being a late-flowerer, the flowers appearing in June or July. The species is a native of the European mountains from whence it is said to have been introduced in 1752.

As we proceed eastward, we come upon an excellent specimen of *R. sargentianum* (Wilson No. 1208—the type number), one of the finest of WILSON’S discoveries in Western Szechuan. This is a compact shrub, 1 foot high, very free-flowering and extremely beautiful with its yellow flowers in May.

A short distance further on, is a small group of *R. lapponicum*, rare in cultivation, first introduced in 1825. These plants are straggly, 3–4 inches high, with widely funnel-shaped, deep purplish flowers. The species is a slow grower, and reputed to be difficult in culture. It should be grown in cold gardens, and is well worth attempting.

At the east side of the Rock Garden, a charming sight in April



RHODODENDRONS AT THE ROYAL BOTANIC GARDEN,
EDINBURGH

FIG. 9—*R. wiltonii* (see p. 42)



Photos, Royal Botanic Garden, Edinburgh

FIG. 10—*R. rhabdotum* in the Rhododendron House (see p. 53)



Photo, Douglas Elliott

RHODODENDRONS IN NEW ZEALAND

FIG. 11—*R. grande*

or early May, is a plant of *R. hippophaeoides*, 3 feet high, bearing a profusion of pale lavender-blue flowers. Along the border, across the path, is *R. dasypetalum*, a compact shrub, 2½ feet high, which no one can fail to admire when covered with deep purple-rose flowers in April.

We now walk to the south side, and here also we find many interesting rhododendrons of diverse form and colour. One of these is *R. calostrotum* (Farrer No. 1045), a compact shrub of 1½ feet, which makes a great show when smothered with large, saucer-shaped pinkish-purple flowers in May or June. An attractive feature is the young foliage, bluish-green in colour.

THE RHODODENDRON GLASSHOUSE

The Rhododendron Glasshouse provides shelter to a large collection of rhododendrons which are not hardy out of doors along the east coast. It consists of a centre area containing several large-sized species, with surrounding borders which are given to medium-sized and small rhododendrons.

At the north border we find *R. nuttallii*, the largest-flowered of all rhododendrons. The plant is 9 feet high, with large leaves markedly veined below, and beautiful young growths, deep purple-red in colour. The flowers are 6 inches long, tubular-bell shaped, pale yellow with an orange blotch. The species was discovered by T. J. BOOTH in the Himalaya in 1852 at 4,000–5,000 feet, where it grows up to 30 feet high, often as an epiphyte on other trees.

Along the margin of this border, there is a fine specimen of *R. parryae*, introduced from the Lushai Hills, Assam, at an elevation of 6,000 feet. It is a spreading shrub, 5 feet high and as much across, with large white flowers with a yellowish-orange blotch, and received the First Class Certificate in 1957.

In the centre area, a noteworthy feature is a magnificent specimen of *R. arboreum*, raised from seed sent by WALLICH from Nepal presumably in 1818. The plant is 20 feet high, with leaves silvery-white beneath, and compact trusses of crimson flowers which appear freely in February or March. It may be remarked that in the Himalaya, the crimson-flowered *R. arboreum* grows up to an elevation of 7,000–7,500 feet. In general cultivation, it is grown successfully in sheltered gardens along the west coast and in the south.

Near by, is a plant of *R. elliotii* (Kingdon-Ward No. 7725), 12 feet high, which seldom fails to display the beauty of its bell-shaped, crimson flowers with darker spots, in June. The species was discovered by SIR GEORGE WATT on the Naga Hills, Manipur, Assam,

in 1882, during the Government Demarcation Survey, growing at an elevation of 9,000 feet. It was introduced into cultivation by KINGDON-WARD from the same region in 1927.

Also to be seen is *R. sinogrande* (Forrest No. 20819), 15 feet high with large trusses of creamy-white flowers with a crimson blotch. This magnificent species is a native of Western Yunnan, Eastern Tibet, North-East Upper Burma and Assam, growing up to 50 feet high at elevations of 7,000–14,000 feet, and was discovered by FORREST in Western Yunnan in 1912. It has the largest leaf of all rhododendrons, up to about 3 feet in length and 1 foot or more in width. Several forms are in cultivation, varying mainly in leaf shape and size. Out of doors the plant should be given a well-sheltered position.

Here we also find a splendid specimen of *R. kyawi*, 15 feet high, with beautiful foliage and large trusses of tubular-bell shaped crimson flowers. The species was named after MAUNG KYAW, Burma Forest Service, who discovered it in North-East Upper Burma in 1912, at an elevation of 6,000 feet, and was introduced by FORREST from the same area in 1919. It is rare in cultivation, but is a most desirable rhododendron wherever it can be grown.

Another remarkable plant here is *R. maddenii*, 12 feet high, discovered by HOOKER in the Himalaya in 1849. It is very free-flowering, with large, sweetly scented white flowers which are produced in June.

We now come upon an imposing plant of *R. grande*, 20 feet high, which is worthy of special notice for its handsome foliage and beautiful trusses of creamy-white flowers with a deep purple blotch. The species is a native of the Himalaya where it is said to form forests at 8,000–10,000 feet.

We find several specimens of the well-known *R. crassum*, discovered by DELAVAY in Yunnan about 1885, and first introduced by FORREST in 1906. These plants are 6–12 feet high, with large fragrant white flowers, with a yellowish-green blotch. It may be of interest to point out that the species is widely distributed in North and West Yunnan, South-East Tibet, and North-East Upper Burma, at elevations of 5,000–14,000 feet, and varies considerably in habit and height, in leaf shape and size, and in flower size. These variations are evident in plants in cultivation. The species is also remarkable for its long flowering period. One of the plants in the Glasshouse flowers in May, two or three others in June and July, whilst another opens its flowers in August. The plant thrives out of doors in the Garden in well-sheltered positions.

An outstanding feature is a superb specimen of *R. griffithianum* (Cooper No. 2315), 20 feet high, with lovely bark, handsome foliage, and large bell-shaped white flowers of exquisite beauty. The species was first introduced by HOOKER in 1849 from the Himalaya, where at elevations of 6,000–9,500 feet, it grows up to 50 feet high. Several forms are in cultivation, varying in leaf size and flower size. The species is very highly rated, and well deserves the First Class Certificate which it received as far back as 1866.

A most interesting species here is *R. giganteum* (Forrest No. 18458), the giant of rhododendrons, discovered by FORREST in South-West Yunnan, in 1921, at 9,000–10,000 feet. This plant is 20 feet high, and first produced large trusses of deep rose-crimson flowers in 1956. The corresponding herbarium specimen collected by FORREST on the eastern flank of the N'Maikha-Salwin divide, South-West Yunnan, in 1919, is said to be a tree of 80 feet, the girth of the trunk being 5 feet 7 inches at 5 feet from the ground, growing in open forest at 9,000 feet. However, according to further specimens also collected by FORREST in the Shweli-Salwin divide, Yunnan, in 1931, the tree reaches a height of 100 feet in heavy forest. In cultivation out of doors it is suitable for sheltered gardens in mild localities.

Other noteworthy species include *R. megacalyx*, 9 feet high, with large fragrant white flowers, discovered by KINGDON-WARD in East Upper Burma, where in rain forest, at 7,000–8,000 feet, it reaches a height of 25 feet; *R. griersonianum* (Forrest No. 15815—the type number), 12 feet high and as much across, with bright scarlet flowers which are produced abundantly in June; and *R. magnificum* (Kingdon-Ward No. 9200—the type number), 12 feet high, introduced from the Burma-Tibet frontier where it grows up to 60 feet high.

Here also grows *R. falconeri*, 18 feet high, with creamy-white flowers, first introduced in 1850 from the Himalaya where it attains a height of 50 feet, at elevations of 7,000–13,000 feet. In general cultivation it is one of the hardiest of all large-leaved rhododendrons. It is an exceptionally fine species with beautiful bark, large leaves rugulose above, with rust-coloured wool beneath, and large trusses of bell-shaped flowers. Several magnificent specimens are to be seen in gardens in the west and south.

Along the east border, towards the north end, there is an excellent specimen of *R. dalhousiae*, one of HOOKER's finest discoveries in the Himalaya. The plant is 10 feet high, and makes a grand show in May with its large, tubular-bell shaped pale yellow flowers which

gradually fade to white. In its native home, the species often grows as an epiphyte on the trunks of oaks, magnolias and other large trees at elevations of 6,000–9,500 feet.

At the margin of this border we find *R. chrysodoron* (Forrest No. 25446—the type number), 6 feet high, which gives a fine display with its yellow flowers in February or March.

A short distance further on, we come upon a splendid specimen of *R. cubittii*, 12 feet high, with flaking bark, discovered by G. E. S. CUBITT in North Burma in 1909, at an elevation of 5,500 feet. In March it provides a wealth of colour with its large, widely funnel-shaped white flowers tinged with pink.

An outstanding feature along this border is *R. lindleyi* (Kingdon-Ward No. 8546), 10 feet high, with large, scented white flowers which are produced freely in May. The species is one of HOOKER's discoveries in the Himalaya where it grows up to 15 feet high in dense mixed forest and on rocks, often as an epiphyte on large trees, at elevations of 6,500–10,000 feet. In cultivation it is grown satisfactorily out of doors in milder localities.

Further along, situated in a corner, is a plant of *R. ciliicalyx*, 9 feet high, with lovely reddish-brown flaking bark and beautiful widely funnel-shaped white flowers.

Among the later-flowering rhododendrons, an exceptionally fine sight in June is a plant of *R. eriogynum* (Forrest No. 13508—the type number), 12 feet high, with a profusion of bell-shaped crimson flowers. It was discovered by FORREST in Western Yunnan growing in open thickets at 9,000 feet. In general cultivation the species is suitable for gardens in the west and south.

Along this border, there are several specimens of *R. supranubium*, 5–12 feet high, discovered by FORREST in 1910, on the eastern flank of the Tali Range, Western Yunnan, at 11,000–12,000 feet. These plants are very free-flowering, and provide a mass of colour in May, with widely funnel-shaped white flowers, tinged with pink.

Mention must be made of *R. lochae*, 2½ feet high, with tubular-funnel shaped crimson flowers. The species is the only native rhododendron of Australia, found in Queensland, growing up to 12 feet high in the crevices of granite rocks, and as an epiphyte on palms and other trees, at elevations of 3,500–4,000 feet.

At the west border, is a fine plant of *R. iteophyllum*, the narrowest-leaved of the Maddenii Series. It is 3 feet high, very free-flowering and most attractive with its funnel-shaped, white flowers in May. Another rhododendron at this border, worthy of notice, is *R. delavayi*, 15 feet high, with large compact trusses of deep crimson

flowers. The species is a native of Western Yunnan and North-East Upper Burma growing up to 35 feet high at elevations of 6,000–11,000 feet.

Among the many interesting rhododendrons at the south side, is a large plant of *R. formosum*, 12 feet high, covered in May with widely funnel-shaped white flowers. The species has long been in cultivation, having been introduced from Assam in 1845.

Here also grows a charming plant of *R. rhabdotum* (Ludlow & Sherriff No. 21257), 5 feet high, with large tubular-bell shaped pale yellow flowers, with a large orange blotch and five crimson bands on the outside. The species is a native of the Himalaya, growing up to 12 feet, often as an epiphyte, at elevations of 5,000–8,000 feet. (Fig. 10)

Finally, many other interesting rhododendrons are also to be seen in this great collection, and it should be stated that ever since the beginning of the present century, rhododendrons have taken a place of great importance in the varied activities of the Royal Botanic Garden, Edinburgh.

RHODODENDRONS IN NEW ZEALAND

By W. DOUGLAS COOK

I DO not know when the first rhododendrons came to New Zealand. They created no impression on my mind, whereas I can remember large bushes of camellias in Auckland in 1890. They must surely have been in New Zealand as early as camellias, but, being more fussy as to conditions, probably did not become popular. The first I owned, I bought in 1910.

In 1914 I secured what was then quite a collection from THOMAS HORTON, in Hastings. These survived my four war years, and were moved on my return. Not many of these old hardy ones remain today. I think now that probably that horrible stock *ponticum* took charge, and the scion died.

In those days New Zealand probably had none but the old hardy types FREDERICK STREET writes about, though amongst those I bought in 1914 were at least three Himalayan hybrids.

Speaking broadly, New Zealand's east coast from East Cape to Oamaru, or even from North Cape to Oamaru, is not good rhododendron country. North of East Cape it is too warm, and south of East Cape to Oamaru, too dry an atmosphere. Many people in this area may say that I have never seen theirs, and that they do wonderfully well. There may be cool moist spots in that area, as there may be one clever child in a family.

Actually there is not a very adequate rainfall in the summer months on the east coast to keep these plants happy and clean.

We have, in the east, a long stretch of good climate. The westerly gales have swept across the Tasman sea, picking up all the moisture they had time to in their hurried passage. They have deluged the west and the central mountain backbone with rain, and have torn the west to pieces. After the first twenty miles over the east side of the north-south mountain range, they have no more moisture and little more energy left, so pass quietly over to the Pacific, where they slowly pick up more moisture, and, sick of looking for more land to the west to deluge, they return tired and fairly respectable to give our east coast some rain in winter.

Sometimes, something upsets them in the Pacific, and they return in February to give us an awakener in the form of a devastating flood. That sort of treatment rhododendrons just will not stand for—and a rhododendron can be just as sulky as anything else that is

unhappy. Well, no one wants unhappy plants when there are so many prepared to be happy in a good country.

From Oamaru South, and Dunedin in particular, rhododendrons do well. On both the east and the west of the Southern Alps for twenty to thirty miles they get enough rainfall and a congenial soil, and they thrive.

I would not say the North Island is good rhododendron country, except close to the mountains and in all the high country, and from Hawera through Taranaki along the coast. Pukeiti Rhododendron Trust property is in this Taranaki area on the range running from Mount Egmont (8,260 feet), but at a height of only 1,000 feet at the Lodge.

THOMAS HORTON of Hastings put a good selection of rhododendrons on the market as far back as 1905. Probably he had more then, than the Taranaki Nurseries. HORTON had limestone country for fifty miles all around him, so was doomed. Taranaki Nurseries boomed and sold the same old rhododendrons year after year, with very few new ones till twenty years ago.

It was not until we formed the N.Z. Rhododendron Association, at Palmerston, that Britain's best started to come in, and, from then on, it was a real race to get the best forms of all the species, and the very best in hybrids. I think F.C.C.s came first, then A.M.s and then anything we heard well spoken of.

Today, New Zealand has a very creditable collection available if people are members of the N.Z. Rhododendron Association. This Association has a membership of between 200 and 300, and each member may buy two species and two hybrids per year at a very reasonable rate, and often some azaleas also, but we do not sell to non-members, and, as a rule, try not to offer anything to members that they can buy from nurseries. That's fair enough.

As an Association we are getting in probably more than all the nurserymen in New Zealand put together, but—we import scions as a rule, and have to wait till a bush is large enough to have scions taken from it. No member can come along with a bag of notes and get a hundred of the best: he takes his turn. New species and new varieties are offered every year, but never enough of all to satisfy everyone. It is a wonderful Association. Every year, about October, all who can get away go on a tour by coach and private cars of private gardens and parks in some distant district where rhododendrons do well. Last year we started at Christchurch and toured to Dunedin. We had morning tea, lunch and afternoon tea in different gardens for three to four days. It is a most enjoyable and friendly tour. The

nearest thing I know of in Britain is the Gardens Cruise run by the National Trust for Scotland in the *Meteor*. But if such things get too big, it ruins all the friendliness.

I do not know in what year, but perhaps in the 1930's, the late EDGAR STEAD visited the late LIONEL DE ROTHSCHILD. He was given azalea seed by MR. ROTHSCHILD and started raising, crossing and selecting. This was going on at Exbury and at Ilam in New Zealand at the same time. Each produced truly wonderful azaleas.

I have a large collection of Exbury azaleas at Eastwoodhill, but not one of the selected forms from Ilam. I bought from MR. STEAD 36 cull azaleas—lovely colours but small blooms. I understand some of the best Ilam azaleas are in America, but I am not sure that any have ever been available of the best products of Ilam azaleas in New Zealand. It is a pity, I think. One cannot compare the two sets of plants, Exbury and Ilam, until they are grown in similar conditions in the same garden. Not that I want to compare them. A good thing is always a good thing whoever breeds it, but some people seem to want to decry one or the other. No one in New Zealand can compare them. I have seen Ilam azaleas at their best, and I have seen Exbury at their best, but only in one garden and in similar conditions can comparisons be made.

MR. STEAD also produced some rhododendrons comparable with anything England has. It would be hard to equal his I.M.S. now called 'Irene Stead'. This, and many other good Ilam rhododendrons have been available to members of the N.Z. Rhododendron Association, and I have quite a number here. What they do in this garden does not do them justice. They are very lovely hybrids, but I fear that little really authentic is known about their parentage.

MR. L. E. JURY also made crosses, and turned out some lovely things from *R. griersonianum*; but, here again, no written tally was kept of most.

I do not think we in New Zealand have yet started registering "Who's who in N.Z.", but certainly many lovely things have been produced. Too many people play at crossing, and then *guess* at the parents.

I am certain that at Pukeiti we can grow rhododendrons as well as they grow in the Himalayas or in China, but the story of Pukeiti is too long for this article. It is a Private Trust owning 900 acres of New Zealand forest in which the members are making roads, paths and clearings, and planting rhododendrons and anything else beautiful which will thrive there. It was chosen as the ideal climate in New Zealand in which to grow rhododendrons to perfection. We are

determined, in time, to make it the most beautiful park in the Southern Hemisphere.

At present 150 to 200 hybrids and species are listed in the trade in New Zealand, but this list includes all the old ones I bought in 1914—many long since superseded by better types and varieties.

The N.Z. Rhododendron Association and the Pukeiti Rhododendron Trust are both importing scions of Britain's best—usually direct from the garden in which they were produced. The N.Z. Rhododendron Association produces for members, whereas Pukeiti Rhododendron Trust sells no plants but produces plants for its own planting on its own property. We all joined Pukeiti to *give* to a great ideal, and we are well started on our way, and on the right lines. I could not have believed that so many people would so willingly and so generously give of their money and their time.

One man, our Curator, ROBIN BAYLY, is the only permanent man, yet at weekends, groups of men are to be seen on all sorts of essential works, while the ladies look after certain areas of small things.

The property, all donated free of cost, now contains 900 acres, mostly in forest. Paths have been made and will be extended well into the forest. Clearings have been made along these paths, and groups of one kind planted in a clearing—the number depending on the area cleared. Most are planted with room to grow to more or less maturity. One large area was cleared with bulldozers—the Hybrid Block—but this was not the success expected: too big an area without protection from the furious westerly gales I spoke of earlier. Even so, the hybrids are doing well, and are sturdy well-shaped compact bushes from 3 to perhaps 5 feet high according to variety—mostly about 3 feet.

In one gully we have mostly large-leaved species and varieties, as well as some hybrids presented by a member in Scotland.

These simply revel in the conditions, and I hope that some day, when we can raise enough from seed, we may have a whole gully of these large-leaved species grown in forest without any clearing, so that they may luxuriate as they did in their native homes. I shall not mind, if, under these conditions, they never flower. Their foliage is sufficient and magnificent.

On one slope of ferns, below a path, is a patch of tall but light bush underplanted amongst the ferns with *R. nuttallii*. In the mossy tree branches overhead, and on the fern and moss-covered rotting logs on the ground they look very happy but, to flower, I think we may have to let in more sun.

R. nuttallii \times *lindleyi* does well, but I hope no one will ever present

us with a collection of the tropical species from Burma—Pukeiti is *not* tropical. At the same time I am ambitious enough to hope that on a warm face of Pukeiti Hill, high up, we may be able to grow jacaranda and perhaps the scarlet Alberta Magna.

When I look at DR. FLETCHER's *International Rhododendron Register* I wonder if it is any use mentioning the name of any rhododendron or azalea we grow. At a rough guess, DR. FLETCHER lists 9,000 rhododendrons and azaleas. That is a very wonderful and valuable book. I wish DR. FLETCHER would come and list all the trees and shrubs I grow at Eastwoodhill. I have got to do it some day, but I dread it!

The availability of good new rhododendrons from nurserymen in New Zealand is not too good. The rhododendron is popular where it grows well, but it is sad that they do not do well on the eastern side of this long and lovely country.

However, I have come to the conclusion, by trial, that deciduous azaleas will thrive in our eastern, sunny climate and dry atmosphere. We have just come through two drought summers, and have lost no azaleas. Rhododendrons, on the other hand, have been a heart-break.

Here, I have a big collection of all the old varieties named in catalogues, and most of the Exbury and Knap Hill deciduous hybrids. I am quite happy to abandon rhododendrons in favour of deciduous azaleas, with one exception. The only happy rhododendron at Eastwoodhill is 'Fragrantissimum'—our best plant measuring 18 feet in diameter and 13 feet in height.

'Iverys Scarlet' does remarkably well and 'Sir Robert Peel', dating from 1914, are all 20 to 25 feet in height. *R. arboreum* in various forms is shooting away in one stem to tree growth, and these have all stood the drought well.

On the west coast, in spite of their gales, rhododendrons are popular, and most of the newer British hybrids from the N.Z. Rhododendron Association I am sure are happy. Both this Association and Pukeiti are doing excellent work. Both import.

Pukeiti will one day rank as one of the most beautiful parks in the world. We have land enough for a hundred years of planting, and the setting of New Zealand bush with its ferns and streams is almost perfect.

As our world-wide membership increases, we will have more imports, and will extend our planting further into the bush. It is entirely a private Trust run by the members. We want no Government grant. We want to be always free to develop our ideal Park as we think best.

Some day New-Zealand-raised hybrids may be made available to the public, but at present only one, 'Kaka', is on the market, as far as I know from catalogues.

A lot of hybrid rhododendrons have been raised in New Zealand and put on the market as unnamed seedlings with parentage given. Most of these are trash and I think such a practice should be condemned.

A few reputable growers have raised excellent hybrids but not many have kept records of the parentage.

However, MR. EDGAR STEAD of Ilam has raised many thousands and selected a few for his own garden, the balance being offered to his friends to select from when in flower. Many are probably as good as those selected for Ilam.

The following are the best of the plants selected for Ilam:

'Irene Stead'	Loderi Pink \times Loderi Pink
'Edgar Stead'	'Ilam Alarm' \times 'Shilsoni'
'Ilam Orange'	(Ilam <i>arboreum</i> \times 'Pink Peach') \times <i>dichroanthum</i>
'Ilam Apricot'	(Ilam <i>arboreum</i> \times 'Pink Peach') \times <i>dichroanthum</i>
'Ilam Cornubia'	Ilam <i>arboreum</i> \times 'Shilsoni'
'Ilam Alarm'	Ilam <i>arboreum</i> \times Pink <i>griffithianum</i>
'Ilam Canary'	
'Ilam Violet'	(<i>chasmanthum</i> \times <i>augustinii</i>) \times <i>russatum</i>
Scarlet King g.	
'Red Glow'	'Ilam Alarm' \times <i>griersonianum</i>
Scarlet King g.	
'Koko'	'Ilam Alarm' \times <i>griersonianum</i>

JAMES DEANS of Homebush has raised some excellent rhododendrons, but I do not know them. C. E. JURY has also raised a great many hybrids, and named a few, but I have not been able to buy any of the named plants of his raising.

There is no registration of names in New Zealand, which I think is a pity.

RHODODENDRON PROBLEMS ANSWERED

A BEGINNER'S GUIDE

By F. E. W. HANGER, V.M.H.

Question. For the first time this spring I have hybridized several rhododendrons. When will the seed pods be ready for harvesting and what would be the best compost for germination?

Answer. Unfortunately you have not mentioned the type of rhododendrons hybridized, but from the end of October onwards the seed pods should be watched very carefully, and at the first sign of the capsules opening they must be gathered for safe keeping. Leave the seeds on the parent plants as long as possible to enable them to be fully matured and when the pods have attained that brown, dry appearance denoting ripeness, and are at the point of splitting, they must be collected immediately and dried, ready for sowing in the following January or February. If at all possible collect the seed during dry weather, place carefully in labelled packets, and, at the first opportunity, enter the crosses in your stud book, giving each hybrid a different number.

Various composts have been tested for raising rhododendrons from seed, but a mixture of good granulated peat and a little silver sand cannot be beaten. This peat should have a low pH of somewhere between 4 and 5, in which the seedlings will live and exist for years, and once they have become hardened off no disease or fungus seems to affect them.

* * * * *

Question. I would be grateful if you could give me some information about late-flowering azaleas. I wish to purchase about four azaleas, either evergreen or deciduous, flowering in midsummer to July and hardy enough to support our cold winds at 500 feet. I can give some protection if needed. I would prefer to have different coloured ones—crimson and deep rose, salmon and white would be ideal.

Answer. The latest of all deciduous-flowering azaleas is *R. prunifolium*, which eventually reaches 10 feet in height. This rhododendron has tubular funnel-shaped clusters of light

orange-red to crimson flowers. In normal seasons it is at its best during the first fortnight in July.

A second late-flowering species, usually flowering at the end of June is the Swamp Honeysuckle—*R. viscosum*. It has glaucous to green leaves, the flowers are very fragrant, narrow tubular-funnel shaped, in clusters, white, resembling in every way the blooms of honeysuckle. This species is a little variable, but at all times one of the best of all late-flowering deciduous azaleas, quite bushy in habit, and up to 8 or 9 feet.

Two late-flowering evergreen azaleas are *R. obtusum* var. *macrostemon*, which is dwarf in habit, orange-red in colour and flowers in late June, and *R. obtusum* 'Kokin-shita', which is much the same in habit and colour as *macrostemon* but with reddish spotting in the flowers. Not quite so late, but later than the majority of the evergreen azaleas is *R. indicum* f. *balsaminaeflorum*, sometimes called *rosaeflorum* by the trade. This is undoubtedly an outstanding dwarf plant with double salmon-rose flowers and is at its best in early June.

* * * * *

Question. I have recently purchased a new set of mist propagating sprayers and I would be grateful for any information you could give me on the propagation of the following types of azaleas: Knaphill, mollis and species. On the other hand, I have heard that azaleas are extremely difficult to grow from cuttings. Do you think it would be better if I layered them?

Answer. Evergreen azaleas root quite easily under mist conditions, providing the cuttings consist of current year's growth, taken about 3 inches long, towards the end of July.

Mollis varieties are being rooted in Holland, quite 80 per cent under what the Dutch term as "Sweat Lights", that is a frame having two lights, one inside the frame immediately on top of the cuttings and the second light in its normal position at the top of the frame. In Dutch nurseries the water table is very high indeed, it is only necessary to dig a hole approximately one foot deep to find water, and in many cases the water canals are at a higher level than the nursery bed. In such positions it is only necessary to water cuttings lightly when inserted, after which no watering and practically no attention is necessary. The secret of the whole operation apparently lies in the fact that as the cuttings never become dry at the roots there is no necessity for lifting the lights other than very rarely

in order to remove decayed foliage matter. In this way the leaf of the cutting remains moist the whole time and the more water drips there are on the inside glass surface the happier the propagator.

This, as you will realize, is more or less the same principle as mist technique. With the double-glass propagation the foliage is always moist, and the whole idea with mist is to keep the surface of the leaf constantly wet, the aim of the two operations being more or less identical.

The same can be said of the Knaphill azaleas, as I am given to understand from the best growers in Holland that they have now given up the idea of grafting and are inserting their cuttings by these means. However, a word of warning, I am told by responsible people that these deciduous azaleas rooted from cuttings will not last for a long period of years as do the seedling or layered azaleas.

My advice to you is that if you only need a few dozen plants it would be far better to get these by layering, which can be done more or less at any convenient time during the year, afterwards needing no particular attention until the rooting operation is completed.

* * * * *

Question. A friend of mine, living in the locality, sold his house on June 17 and has offered to give me quite a large number of rhododendrons from his garden, providing I supply the labour to dig them up. When would be the best time to move the plants, the new tenant takes over next October?

Answer. It is claimed that rhododendrons will move at any time during the year, providing they have adequate water during and after the operation. This more or less is correct, as rhododendrons have a very fibrous root system, but at this time of year, immediately after flowering, the plants should be left as long as possible enabling them to make their new growth before being disturbed. By late September this growth will have become reasonably hard and the moving of rhododendron plants can be carried out with every safety.

Prepare holes in your garden for the new rhododendron positions beforehand, and should the ground be at all dry it is a good plan to fill the prepared holes with water a couple of days before planting. After planting, water the plants well in. All rhododendrons when moved should have a good ball of

soil attached to the roots, the size of the ball to be determined by the size of the plant.

* * * * *

Question. I have bought a bungalow at Goring-by-Sea and have had a special bricked bed prepared and filled with acid soil (the soil at Goring is alkaline) and I have planted it with deciduous azaleas. They are in flower at the present time and are looking very beautiful, and I am wondering whether you can give me any further advice as to the management, including pruning (if necessary), and general care of these plants.

Answer. I believe that you have taken on an almost impossible task in trying to grow azaleas at Goring-by-Sea. You have made a very good start and apparently you realize the difficulties as you have built a special brick bed and filled it with suitable acid soil. I sincerely hope that this brick bed has been erected in the highest possible part of your garden and that it stands above the natural alkaline soil, also that you have not dug a hole, bricked it round and then filled it with soil. If this is the case, as the years go by the moisture from the alkaline soil will eventually penetrate into your azalea bed and upset the balance of the soil, subsequently killing the plants.

As regards pruning, if your plants are on their own roots (and not grafted) then very little pruning will be necessary other than (if you wish) to cut back the long straggly growths. Personally, I like to see these leading shoots tiering up above the plant, making for some elegance and beauty. Do not allow your azaleas to become dry for want of watering.

* * * * *

Question. I have two rhododendrons growing in tubs in front of my house. Last year they flowered profusely, but this year there is no blossom on one and very little on the other, but there is much growth. All spent blossoms were picked off last year. Are they likely to bloom next year and can anything be done to encourage this?

Answer. The profusion of flower the first year must have taken a tremendous amount of energy from your plants, and it is not surprising at all that the following year the plants bore only very little blossom. However, I would say that this is a blessing in disguise inasmuch that now the plants are established in their tubs, they will flower next year at the point of all the strong growths made this year. On no account must the plants be

allowed to become dry, and a little feed of liquid farmyard manure would be beneficial. From the material sent, your plants appear healthy in every respect, but it will be wise to allow the plants full sun to ripen the young growths, thus arresting flower bud formation.

* * * * *

Question. The rhododendrons in my small woodland garden are getting far too large and I have insufficient labour to transplant them. Can rhododendrons be pruned hard back?

Answer. Rhododendrons, providing they have a rough type of bark, can be pruned severely after which they will break into new growth from really hard wood and reform into nice shapely bushes. If the rhododendrons are on their own roots little harm will befall them, but should they be grafted on to the *ponticum* stock a very sharp look-out should be kept to prevent the suckers from taking command. These should be removed as soon as possible by pulling out rather than cutting off with secateurs or some other instrument.

Should the rhododendrons needing to be pruned have smooth bark such as *R. thomsonii* and *R. barbatum* or their hybrids, it is advisable not to prune hard back, as such plants are very shy of breaking into new growth from the smooth hard stems. Rhododendrons should be pruned at the end of March, or, if preferred, immediately after flowering.

* * * * *

Question. I have recently purchased a house with a quite nice open garden in the north-east part of the country. I am told that the soil here is lime-free and I have noticed quite a number of wild rhododendrons growing in the district. The house is located on the north side with the garden running south but it is fully open to sun and wind and I should really like to grow a few rhododendrons; can you advise me on the best varieties to purchase?

Answer. Your observations that the wild *ponticum* rhododendrons do well in the district indicate that it will be quite safe for you to attempt to grow rhododendrons in your garden. Providing you begin with truly hardy varieties, classified as "A" in the *Rhododendron Handbook*, Part II—Hybrids (hardy anywhere in the British Isles and may be planted in full exposure if desired).

It is also fortunate that you mentioned your house is situated on the north part of your garden, as you may begin planting



Photo, Douglas Elliott

RHODODENDRONS IN NEW ZEALAND

FIG. 12—Rhododendrons at Pukekura Park



Photo, Douglas Elliott

FIG. 13—*R. sinouattalii* in Mr. C. E. JURY'S garden in New Zealand



Photo, County Times

FIG. 14—*R. ponticum* growing as an epiphyte on a cork oak at
Dunrobin, Co. Wick (—101)

rhododendrons near the house, sheltered from the north winds, with confidence. The house will provide just that extra shelter from the north necessary to obtain full benefit from your plantings. The following six rhododendrons should do very well:

- R. 'Purple Splendour'—deep purple with black spot
- R. 'A. Bedford'—lavender with dark eye
- R. 'Blue Peter'—pale lavender-blue with deep blotch
- R. 'Mrs. Anthony Waterer'—white with yellow blotch
- R. 'Sappho'—white with dark blotch
- R. 'B. de Bruin'—dark red.

This collection of six could be planted if needed in full exposure to sun and wind, and the following six could be planted in positions near the house, sheltered from north and east:

- R. 'Britannia'—bright scarlet
- R. 'Mrs. Furnival'—light pink, sienna blotch
- R. 'Mrs. G. W. Leak'—pink with brown-purple blotch
- R. 'Mount Everest'—white
- R. 'Mother of Pearl'—blush, turning to white
- R. 'Thunderstorm'—deep red, pure white stamens.

All these rhododendrons flower at the end of April onwards and should, in normal years, miss the early spring frosts.

* * * * *

Question. My garden, which was just a wild bit of woodland garden with oaks, silver birch, firs and masses of *ponticum* rhododendrons, has now been planted with quite a number of rhododendrons and azaleas. The soil is peaty and rather acid with plenty of leaf mould from the trees above, but in spite of this many of the hybrid rhododendrons are very shy of flowering. The azaleas and *ponticum* rhododendrons flower well and I would be grateful if you could advise me on the best treatment to induce the hybrid rhododendrons to flower, or is this inherent in the plants?

Answer. The hardy flowering rhododendrons need plenty of light and for preference are best grown in positions sheltered from the north and east winds, but in full sun. They will, however, do very well in very slight shade, but should the shade be too heavy the plant makes extra growth which cannot be ripened

by the summer sun and will not produce flower buds. Therefore, I believe the answer to your question is give your plants as much light as possible.

* * * * *

Question. I have recently successfully rooted some rhododendron cuttings—mostly Maddenii and Edgeworthii Series and also Triflorums. Due to lack of space in my greenhouse I wish to dismantle my propagating frame and therefore will have to pot up these cuttings. I am most anxious to have your advice on the best method of doing this and what medium is best to use. I have to pot up in pots as my garden soil is limy.

Answer. Rhododendrons are easily transplantable and I should advise you to lift your Maddenii and Edgeworthii rhododendrons and pot them into 4-inch pots, using the compost as follows:

2 parts granulated peat
2 parts lime-free loam
1 part coarse grit or sand

with the addition of a little bonemeal, approximately a handful to the bucketful of compost.

Keep the newly planted cuttings in a closed house and well syringed until they are re-established. The Triflorums can be treated in the same manner, but remember the Maddenii and Edgeworthii Series are more tender than the Triflorums.

I note that you live in Swansea and if you have a very favoured garden you may grow the Maddenii and Edgeworthii Series out of doors, but here at Wisley we fear to think of such luxuries.

* * * * *

Question. About five years ago I purchased a plant of *R. barbatum*.

I planted it in a border facing north, giving it plenty of peat and leaf mould. The plant is thriving well and produces fresh leaves every season, but has never had a flower. I have been advised to move it, but I have not much space and it would have to be a few yards from a clematis, where I put mortar rubble. I have seven clematis and they do very well. I shall be most grateful for any help.

Answer. This particular rhododendron is a very fine early-flowering species, which requires a sheltered position in the most favoured woodlands of the country. Here at Wisley, we have several large plants which grow away well, but very seldom

give us flower, due mostly to the early spring frosts which kill the flowering buds before they open.

I have closely examined the spray you sent, and it is definitely *R. barbatum*, but unfortunately the leaves show yellowish markings, which indicates that the soil probably contains a certain amount of lime. You have stated that you have added mortar rubble to the soil which helps your clematis to grow away splendidly, but such material in the ground would be detrimental to the ericaceous plants such as rhododendrons.

R. barbatum does not flower until the plant is of considerable size and I suggest that it would be a wise plan to leave your plant where it is and top dress it annually with rotten leaves or granulated peat to a depth of $1\frac{1}{2}$ inches. This plant is a grand rhododendron for favourable sheltered woodlands, but it is not an ideal selection for your district of North-West England.

* * * * *

Question. Kurume azaleas seem to be coming more and more popular each year, but I would like to propagate my plants to provide extra plantings in the garden and also to give to friends. Will you please tell me the best means of increase?

Answer. These azaleas are easily propagated by taking cuttings of current year's growth during late July or early August. The soft cuttings should be about 2 to 3 inches in length and would easily root with heel attached, but this is not essential. Smaller cuttings, less than 2 inches, are usually too soft and tend to damp off. Cuttings longer than 3 inches need their very soft tops pinched out to balance the cutting.

A compost consisting of 2 parts sand and 1 part granulated peat is suitable. The cuttings should be inserted, about seven in number, round the inside of a 3-inch pot or, where large numbers are needed, in wooden sand trays or direct into the propagating bed. The cuttings should be well watered in and placed inside a propagating frame, where they should be kept moist and shaded. The cuttings also root very quickly under mist propagation conditions.

As soon as well rooted the cuttings should be gradually hardened off and be potted singly or planted out in rows in frames which have been specially prepared with good drainage and new peaty soil. After planting out the plants will need to be kept continually moist at the roots for the best results.

* * * * *

Question. This summer our azaleas were covered with a sooty deposit and I was worried about this as it seems to hinder their growth. We have a large sycamore on the edge of our azalea plantation and everything near seems to be covered with the same deposit. I have recently read that this could be falling from the sycamore. We have also a large cupressus which shades much of the garden and also appears to be robbing the nearby plants of food. What would you advise us to do?

Answer. The samples you sent are covered with sooty mould which grows on honey dew excreted by aphids and a number of other insects such as Scale and White Fly. It appears as if the honey dew is falling from the overhanging sycamore and unless this can be sprayed against aphids it would be advisable to cut it down and root out the stump.

Honey dew can also be excreted by the Azalea White Fly and it would be worth while looking to see if these are present on the azaleas.

It is difficult to advise you regarding the cupressus without actually seeing it, but it should be remembered that azaleas, especially deciduous ones, need full light, and in your case will probably benefit greatly with the removal of the tree.

THE PROPAGATION OF RHODODENDRONS BY BUDDING

By JOHN S. DRUECKER

(Fort Bragg, U.S.A.)

WHEN we first began to grow rhododendrons on a commercial scale, we followed the more or less standard procedure of propagation used by nurserymen here and abroad. Briefly, by this method new plants are produced by veneer grafting desirable hybrids on common understocks during the winter months. This method requires the use of heated frames over a period of weeks. We, however, have departed from standard practice in the type of understock selected.

Instead of *R. ponticum*, a species used by most nurseries for this purpose, we grew *R. fortunei* which is a species from the Chekiang Province in eastern China. It is one of the hardiest of the Chinese rhododendrons and is a very strong and vigorous grower. In contrast to *R. ponticum*, a two-year-old plant of *R. fortunei* generally has a much larger stem with a thick "juicy" bark and the added advantage of not developing strong side branches for the first couple of years. As an understock, it proved to be very satisfactory for us.

About seven years ago we decided to try budding as a major method of propagating rhododendrons. As far as we knew at that time, no budding of rhododendrons had ever been done on a large commercial scale. The experiment worked out so successfully that we have used it ever since.

The work is done in open growing beds on two-year-old *R. fortunei* plants between the middle of July and the first of September. A T-shaped cut is made as close to the base of the plant as is possible and a leaf bud inserted in the opened slot and tied very closely and tightly above and below the bud with a rubber grafting strip. The plants should be watered well during this propagation period.

The following spring before the normal growing season starts, the whole top of the *R. fortunei* plant is cut off about an inch or so above the top of the grafting strip. This first season the bud usually puts out a single growth after it "breaks", but there are a number of cultivars that usually make two during the first season.

There is a variation in the success of this type of propagation. Certain hybrids produce good results every year. Among these are: 'Ruby Bowman', 'Jean Marie de Montagu', 'Radium', 'Mrs. Tom

Agnew', 'Burgundy', 'Rainbow', 'Major George Ritter', and 'David'. Rhododendrons which do not bud successfully for us include 'Mrs. Furnival', 'Earl of Athlone', 'Purple Splendour' and 'Jan Dekens'.

There are certain very definite advantages to this type of propagation for us. It does away with the heating expense entirely. It saves moving the understock into pots or plant bands during the period of propagation. The technique of budding is much easier and two to three times faster to execute than veneer grafting. A very important fact from a commercial angle is that fewer stock plants are necessary since one scion has at least four leaf buds on the average. In addition to this, even if the loss should be fairly high, the percentage of successful "takes" is greater than the whole-scion-for-one-plant method.

[Reprinted by kind permission of the Editor of the California Horticultural Society and the author from their Journal, Vol. XIX, No. 4.]

RHODODENDRON COMPETITION

March 24 and 25, 1959

By PATRICK M. SYNGE

THIS was the first early-flowering rhododendron Competition to be held and the large number of entries showed that the decision to hold such a competition was well justified. The predominant colour looking down the benches was the strong scarlet of *R. barbatum* and its hybrids but there was a strong mixture of pale pinks and lilacs from such species as *R. sutchuenense*, while among the large-leaved species *R. macabeanum* was predominant. It is interesting to note also the long flowering season since this species, *R. arboreum* and its hybrids, and members of the Azalea section such as *R. albrechtii*, which were seen here, are usually seen also at the main Rhododendron Show six weeks later.

Prior to the Show there had been a spell of comparatively warm weather and little frost in most areas, so that the plants were well forward, although they had earlier been kept back by a long spell of cold and grey weather in February. The exhibitors and prize-winners were by no means restricted to gardens from the more favoured areas of the West and those from Sussex and The Crown Estate Commissioners from Windsor were able to show excellent exhibits and win several prizes. Unfortunately there were very few exhibits from Scotland.

Class 1 required trusses of four species and there were seven entries. The first prize went to The Crown Estate Commissioners for flowers grown in the Windsor Great Park. They showed an outstanding pale pinkish lilac truss of *sutchuenense*, a very good full truss of *R. arboreum album*, a nice *barbatum* truss and also one of *macabeanum*. The second prize was awarded to LORD ABERCONWAY and the National Trust of Bodnant for *calophytum*, *macabeanum*, *strigillosum* and *barbatum*. The two latter were particularly brilliant in colour and good specimens. The third prize went to MR. E. DE ROTHSCHILD, of Exbury, who showed a very fine pink truss of *praevernum* with widely open bells, a thickly spotted *irroratum* and also *planetum* and *macabeanum*.

Among other unusual flowers in this class, which I noted, were a very deep purplish mauve *ririei* from MAJ.-GEN. E. G. W. W. HARRISON, of Tremeer, a nice pale pink *eritimum* spotted freely inside with deep crimson from SIR HENRY PRICE, of Wakehurst,

and a pale salmon-pink *eclectum* from Mrs. R. M. STEVENSON, of Tower Court. There was also an unusually pale *oreodoxa*, almost white with a faint lilac flush.

In Class 2, for a single spray or branch of a species, LORD ABERCONWAY won first prize with a very free-flowering branch of an unusually deep pink form of *pachytrichum*, a member of the Barbatum Series. He also gained second place with a very heavily flowered spray of a lovely pale pinkish lilac *fargesii*, while for third place SIR HENRY PRICE showed a deep pinkish crimson member of the Irroratum Series with small compact trusses and closely allied to *R. eritimum*. Also notable in this class was an unusually fine pinkish lilac *praevernium* with large flowers and a conspicuous deep crimson-red blotch.

In Class 3, for one truss of one species, there were twelve entries and LT.-COL. SIR EDWARD BOLITHO, of Trengwainton, won first prize with a very fine truss of a deep lemon-yellow *macabeanum* with conspicuous red stigmas. This species showed its best in Cornwall this year. The second prize went to The Crown Estate Commissioners for an unusually good strong-coloured *barbatum* from Windsor, while the third place was won by MAJ.-GEN. HARRISON with a fine creamy white *irroratum*. Also notable in this class was a fine pale *sutchuenense* from SIR HENRY PRICE and a very brilliant red *strigil-losum* from LORD ABERCONWAY.

Class 4 called for three varieties of *R. arboreum* and the first prize was won by LORD ABERCONWAY with two white flushed pink forms and one good pink one; the second place went to SIR GILES LODER, of Leonardslee, for fine trusses of the white, deep pink and deep blood-red forms. It was interesting to compare the very varying degrees of indumentum on the under surface of the leaves. In LORD ABERCONWAY's exhibit one of the white varieties had practically none, while the other had a thick creamy white, almost suède-like covering.

Class 5 also required one truss from the Arboreum Series and attracted eight entries. An unusually good truss of a pure white *arboreum* with rusty scaling on the underside of the leaf won first prize for The Crown Estate Commissioners. The second prize was won by MR. F. STRAUSS, of Stonehurst, with a deep crimson *sylvaticum* with long leaves, and the third by LORD ABERCONWAY with a deep shell-pink *arboreum*. SIR EDWARD BOLITHO showed in this class a truss of the deep pink *lanigerum*, a rare and also very lovely species but unfortunately it was just past its best.

In Class 6, for any rhododendron of the Barbatum Series, there

were twelve entries and some very fine specimens were shown. The prizes went to LORD ABERCONWAY, The Crown Estate Commissioners and MR. E. DE ROTHSCHILD, respectively. Even better filled was Class 7, for one truss of a member of the Fortunei Series, which attracted sixteen entries and the first prize went to a very outstanding truss of *sutchuenense* with very large flowers of pale pinkish lilac and without any blotch shown by The Crown Estate Commissioners. Probably this was one of the finest exhibits in the Competition. The second prize was won by MR. E. DE ROTHSCHILD with a good pink form of *planetum*, and the third by LORD ABERCONWAY with *calophytum*. There were also two interesting trusses of *davidii* with large open pink flowers from The Crown Estate Commissioners and SIR HENRY PRICE. Another unusual flower in this class was the white *reginaldii*, flushed with pale lilac.

In Class 8, for a truss from the Neriiflorum Series, there were eleven entries and CAPT. MURRAY ADAMS-ACTON won first prize with a very dark blood-red, almost maroon, form of *beanianum*. It was as dark as any which I had seen previously and very handsome with its dark green puckered foliage. The second and third prizes went to The Commissioners of Crown Lands and MR. DE ROTHSCHILD, respectively, for good specimens of the bright red *pocophorum*.

Class 9, for a truss of the Thomsonii Series, attracted fifteen entries and the first prize went to a very brilliant specimen of *hookeri* from LORD ABERCONWAY. On comparison with other flowers in the Competition this was the brightest and strongest red among the species and was only equalled among the hybrids by 'Choremia', also shown by LORD ABERCONWAY and raised at Bodnant. It is unfortunate that it is more tender than most of the other scarlet-red species shown. SIR HENRY PRICE was second with a very good truss of *meddianum* in which the bells were unusually large and the flowers borne on long pedicels. MRS. R. M. STEVENSON was third with a large-flowered pink form of the variable *eclectum* var. *brachyanthum*, heavily spotted inside on the upper petals and with a large deep crimson blotch. Other exhibits of the same species in this class showed great variation in colour.

Class 10, which allowed exhibits from a number of series among the smaller lepidote species, attracted seventeen entries, the largest number of any class in the Competition. The first prize was won by MAJ.-GEN. HARRISON for a spray of an unusually fine pink *racemosum*, flowering very freely. LORD ABERCONWAY was second with *sulphureum*, a nice deep yellow flower, and also third with a well-flowered branch of *leucaspis*. Also notable in this class were SIR

EDWARD BOLITHO'S *spinuliferum* and his pinkish-lilac *ravum*, a species with very scaly leaves and rarely seen.

Class 11 gave an opportunity for exhibiting any species not included in the series mentioned for the preceding classes, and attracted twelve entries of very varying size and form from the massive *macabeanum* to a rather diminutive *valentinianum* (Forrest 27715), and also admitted some lovely species of the Azalea Series, flowering unusually early. SIR EDWARD BOLITHO'S spray of *albrechtii* was a magnificent deep pink and undoubtedly one of the most lovely exhibits in the Show as well as being the equal for colour of any specimen of this species which I have yet seen (Frontispiece). The Crown Estate Commissioners were second with a good yellow *macabeanum*, and LORD ABERCONWAY third with the beautiful pale pink *pentaphyllum*, which is also an outstanding plant for autumn colouring. Also notable in this class was SIR EDWARD BOLITHO'S *johnstoneanum*.

Hybrids

There were five classes for hybrids and these were also well filled. Class 12 required a truss from four separate hybrids and was won by SIR GILES LODER with 'Faltho', 'Haze', 'Loki' and 'Seagull'. 'Faltho' is a cross between *falconeri* and *thomsonii* and gave a large head of deep rose madder; 'Haze' is a deep purplish lilac and has the large leaves derived from *hodgsonii*, the other parent being 'Muriel'; 'Loki' is derived from 'Cornubia' and has a compact truss with bright red rather widely open bells; 'Seagull' was a beautiful clear white with only a slight freckling inside and is a seedling from Loderi g. \times *sutchuenense*. MR. DE ROTHSCHILD was second with brilliant red 'Alix', 'Boadicea', 'Androcles' white flushed with pale lilac-pink and a pale pink hybrid from *sutchuenense* \times 'Lord Milner'. The Crown Estate Commissioners showed for third prize the scarlet 'Shilsonii', 'Nausicaa', a large-leaved hybrid from *calophytum*, 'Lady Linlithgow' with large deep pink flowers and a pale crimson *arboreum* hybrid. A fourth prize was awarded to LORD ABERCONWAY who showed 'Choremia', presumably from the original F.C.C. clone, a very brilliant red waxy flower of great substance, 'Redwing' and 'Bartia', two good deep red Bodnant hybrids, and 'Mrs. Henry Shilson', a pale pink *arboreum* hybrid. Class 13 was for a spray or branch of any hybrid, and there were fourteen entries. MRS. R. M. STEVENSON won first prize for a very free-flowering scarlet branch from the *Choremia* grex, but it differed considerably from the specimen shown from Bodnant in the

previous class. The Crown Estate Commissioners were second with a very well-flowered 'Cilpinense', surely one of the most generally useful and beautiful of early-flowering rhododendron hybrids yet raised. Third prize went to a good branch of 'Shilsonii' from Mr. DE ROTHSCHILD. Also notable in this class was CAPT. MURRAY ADAMS-ACTON's beautiful pale pink *tephropeplum* hybrid 'Ailsa Jean'.

In Class 14 only one truss of any hybrid was asked for, and the first prize was awarded to LORD ABERCONWAY for a most unusual bright purplish mauve hybrid with a compact truss derived from *rirei* \times *niveum*. It was certainly a distinctive colour. The second prize went to The Crown Estate Commissioners for a compact bright scarlet truss of 'Portia' \times *barbatum*, and the third to LORD ABERCONWAY for 'Choremia'. This hybrid also won for him the first place in Class 15, for any hybrid of the Arboreum, Barbatum, Fortunei or Thomsonii Series, a range of parentage which gave wide scope. MRS. STEVENSON was second with 'Portia' (*euchaites* \times *strigillosum*), and The Crown Estate Commissioners third with 'Portia' \times *chaetomallum*. All the prize-winners in this class were brilliant scarlets.

Any hybrid of a Lepidote rhododendron was the subject of Class 16, and LORD ABERCONWAY won first prize with the beautiful deep yellow 'Chrysomanicum' (*chrysodoron* \times *burmanicum*), one of the outstanding flowers in the Competition. 'Fine Feathers', also from Bodnant, won second prize, while for third prize The Crown Estate Commissioners showed a good colour form of the old hybrid *praecox*.

The next class was for foliage and the first-prize exhibit from The Commissioners of Crown Lands at Windsor was most exceptional for the home counties and showed the size of leaf we usually associate with gardens on the West Coast of Scotland, and even then they would have been good. The largest *sinogrande* leaf measured 20 inches long by 9 inches broad in its widest part, and the colour was a deep rich green. Branches of *falconeri* and *basilicum* were in proportion. Possibly the damp summer of 1958 had helped their growth. The second prize went to Mr. R. STRAUSS, of Stonehurst, who showed *auriculatum*, *coryphaeum* and *bureavii*, the underneath of several of the leaves being cleverly bent back to show the rich rusty indumentum below in the case of *bureavii*. Mr. DE ROTHSCHILD was third with *sinogrande*, *exasperatum* and *fulvum*.

In the final class, Number 18, for a tender rhododendron, exhibits were permitted which had been grown under glass, though in the remainder of the classes only specimens from plants growing in the open were permitted. One truss was required and the first prize

went to SIR HENRY PRICE for a magnificent specimen of *edgeworthii*, which had five unusually large and well-formed flowers, well set off by the deep green bullate foliage. The second prize went to The Crown Estate Commissioners for a good truss of the double form of *johnstoneanum*, and the third prize to them also for 'Rose Mangles'. Also notable in the class were specimens of *polyandrum* with a very sweet scent and a pale blush-pink *carneum*.

The Competition certainly aroused much interest and it is to be hoped may encourage yet more exhibitors next year if the season be as favourable.

THE RHODODENDRON SHOW

May 5 and 6, 1959

By LANNING ROPER

AS the result of the shy flowering of rhododendrons in most parts of the country coupled with an excessively early season brought on by a mild winter and an early spring, the Rhododendron Show was definitely smaller and more restricted than in the two previous years. To complicate matters further there was heavy frost in a few areas the week prior to the Show and this spoiled some entries that had been relied upon. To offset this, however, there were several new exhibitors and this is always welcome as there is a marked tendency for the same names to appear on the entry cards year after year.

This off-season for rhododendrons is partly explained by the excessive rain and dull weather last summer which prevented many plants from ripening and forming flower buds. An even more telling cause was the very heavy flowering in 1958 which must have tended to exhaust the flowering strength of many hybrids and species. Although conditions were unfavourable in most parts of England, they were not as bad as in Scotland, where the Scottish Rhododendron Show was cancelled the week prior to the Show.

The nurserymen's exhibits were good but again they suffered from handicaps similar to those of the private exhibitors. No gold medals were awarded. The Knap Hill Nursery was awarded a Silver-gilt Banksian Medal for a large floor exhibit which was skilfully arranged with tall hardy hybrids including 'Mother of Pearl', 'Blue Danube', 'Cynthia' and 'Royal Purple' in the centre, with azaleas banked around them, the whole exhibit bordered with a grey stone coping, which made an attractive foil for the bright colours. Large plants of the lovely white 'Palestrina' contrasted with the bright magenta of *R. obtusum* var. *amoenum* and with a wide range of Ghent, Exbury and Knap Hill hybrids, including the salmon-pink 'Chaffinch', orange-scarlet 'Hotspur' and 'Buzzard'. The same award was made for the wall exhibit under the clock staged by Messrs. W. C. Slocock Ltd. This impressive group combined hardy hybrids, a few species and azaleas, both deciduous and hardy Japanese evergreen. Standard plants of 'Madame de Bruin', 'Letty Edwards', 'Mrs. G. W. Leak' and 'Betty Wormald' formed the central theme. Birch logs edged the exhibit with massed azaleas including the pure white hose-in-hose 'Kure No Yuki', the soft pink 'Hi No Mayo',

and the glowing 'Orange Beauty'. In the centre was a well-flowered group of the rich orange-yellow deciduous azalea 'Mrs. Oliver Slocock'.

The Sunningdale Nurseries had a rectangular raised exhibit dominated by a group of 'Loderi Venus' and 'Loderi King George' around which were grouped well-flowered plants of *R. impeditum* and *R. chryseum*, the lavender-blue and the clear yellow of these two species of the Lapponicum Series being particularly pleasing in combination. Large spreading plants of 'Hi No Mayo' and *R. obtusum* var. *amoenum* made another effective combination. Other Japanese azaleas included 'Juliana', 'Palestrina' and 'Hatsu-giri'. This exhibit received a Flora Silver Medal. Messrs. G. Reuthe Ltd. had an exhibit of similar size which featured large-leaved rhododendrons of the cross *R. macabeaenum* \times *R. sinogrande*. These were not in flower but their handsome foliage was a welcome addition to well-flowered plants of 'Earl of Athlone' and 'Mrs. G. W. Leak', which were used for height at the corners instead of in the centre. Plants of interest included the creamy yellow Maddenii *R. johnstoneanum*, the F.C.C. form of 'Lady Chamberlain' and 'Fittra'. A Flora Medal was awarded. A Silver Flora Medal went to Messrs. Hillier for a group of small plants and cut sprays including *R. vaseyi*, a lovely purple form of *R. calostrotum*, *R. tsangpoense*, *fastigiatum*, *impeditum* and similar dwarf species. The same award was given to Mr. FREDERICK STREET for a group of large hardy rhododendrons bordered by smaller azaleas, including some of the finest Exbury hybrids. Messrs. Charlton also showed a group of hardy hybrids.

Messrs. Waterers had a large exhibit with tall well-flowered specimens of 'Mrs. G. W. Leak', 'Loderi Pink Diamond' and 'Loder's White'. These last always attract attention because of the size of their flowers and the heavy scent. Other plants in this exhibit which I noted were 'Naomi', 'Letty Edwards' and the very fragrant 'Lady Alice Fitzwilliam'. Azaleas included the Japanese 'Fidelio', 'Alice' and the ever popular *R. obtusum* var. *amoenum*. A Silver-gilt Banksian Medal went to the exhibitor.

The number of entries in the competitive classes was below the average for the last few years and in some classes there were no entries for reasons explained above. The much-coveted first prize for one truss of eight species was won by SIR HENRY PRICE, who exhibited from Wakehurst in Sussex the following: a fine pale yellow *falconeri*, a cool white and luminous green *decorum*, a well-filled neat truss of a soft lilac-pink *habrotrichum*, which was a good foil for a deeper, richer, eight-flowered truss of *orbiculare*, three reds

including a good *thomsonii* and *neriiflorum* and a good form of *campylocarpum* with red pedicels and clear yellow flowers. All these blooms had clean unblemished foliage and the exhibit showed a nice balance of colour and contrast of leaf and flower forms. Second prize was awarded to LORD ABERCONWAY and the National Trust for an exhibit from Bodnant including: a well-filled truss of *decorum*, *habrotrichum*, a pale pink *fortunei*, *griffithianum* with six very large flowers, *vernicosum*, a compact white *roxieanum* heavily spotted with red, a pale yellow *lanatum*, a very large flowered *orbiculare*, and a five-flowered truss of *concatenans* in prime condition. Third prize went to MR. E. DE ROTHSCHILD for his exhibit from Exbury which featured *orbiculare*, which was common to all three exhibits, the rather uncommon *laxiflorum*, white flushed rose, a particularly brilliant red *haematodes*, *euchaites*, a rather more vivid orange *concatenans* than the Bodnant form, *thomsonii* and the striking *bureavii* with its dark foliage with woolly indumentum like a halo round the neat pinkish flowers. There were no other entries.

In Class 2, for one truss of three species, first prize went to the EARL OF STAIR, who sent from Lochinch a well-shaped truss of *decorum*, a neat *habrotrichum* and a very good *thomsonii* with brilliantly coloured, well-formed flowers. The Crown Estate Commissioners, Windsor, were second with a fine *yunnanense*, the unfamiliar *coryanum* (F20322) with neat small creamy white flowers spotted with red and very dark green foliage, *orbiculare* which contrasted strikingly with it, and a fine *ficcolacteam* (Rock 59350) with a heavy maroon blotch and spotting on the white flowers. Third place went to MAJ. A. E. HARDY, who showed from his garden, Sandling Park, Hythe, a very good truss of *fortunei*, *campylocarpum* which was marred by poor foliage, and *sphaeroblastum*.

Class 3, for one truss of three species shown by an exhibitor who had not won a prize in the preceding classes since 1954, attracted only two exhibitors. MR. R. STRAUSS, of Stonehurst, Ardingly, was first with good trusses of *fortunei*, *campylocarpum* and *thomsonii*, an attractive combination with a pink, a yellow and a red. MRS. G. M. YOUNG, of Little Birches, The Chase, Ringwood, showed *yunnanense*, *wardii* and *fortunei*, the last possibly a hybrid. These two exhibitors are to be congratulated and it is hoped that more rhododendron enthusiasts will follow their lead next year.

The McLaren Challenge Cup is awarded each year to the winner in Class 4 for a single truss of a species. The EARL OF STAIR won this coveted prize with a sturdy truss of *habrotrichum*. It was a delightful

clear pale pink with no mauve tinges. SIR HENRY PRICE was second with a large symmetrical truss of *falconeri*, the pale yellow flowers accented by the black anthers and yellow-brown pistils. MR. E. DE ROTHSCHILD's fine deep red *arboreum* took third prize. MAJ. HARDY also showed *falconeri* and the Crown Estate Commissioners, Windsor, a lovely yellow *litiense*.

There were seven entries for Class 5, for one spray of a species. Here competition was keen but MR. E. DE ROTHSCHILD was awarded first for his beautiful form of *augustinii* with large trusses of brilliant blue flowers with olive-green spotting, which intensifies the richness of the blue. Second prize went to the Crown Estate Commissioners for a spray of *xanthocodon* with trusses of eight to ten very rich creamy yellow bells. LORD ABERCONWAY and The National Trust took third place with a lovely *habrotrichum* of clear rose. The nine trusses made a wonderful colour contrast to MR. DE ROTHSCHILD's *augustinii* and many people commented on this happy coincidence of placing.

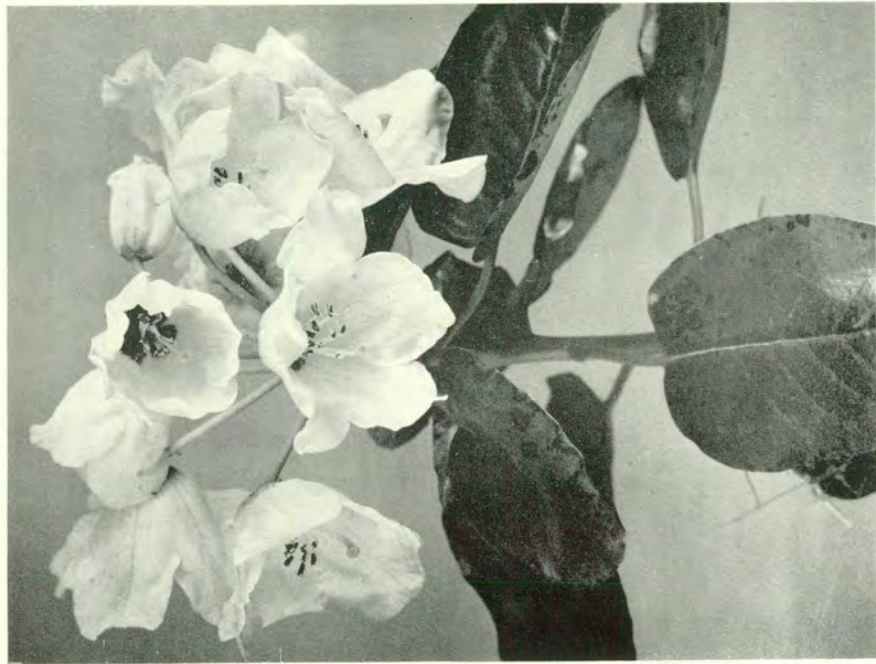
A fourth prize in this class was also won by LORD ABERCONWAY with a beautiful branch of *orbiculare*, with five trusses of ten to eleven flowers. The long-curving pedicels were bright red on top and paler beneath while the fine foliage of greenish blue set off the richness of the pink. SIR HENRY PRICE showed *falconeri*, with three trusses.

There were only four entries in Class 6, for one truss of *arboreum* or its subspecies. The EARL OF STAIR took first and third prizes with good trusses of white and pink respectively and MR. DE ROTHSCHILD received the second prize for a fine rich red, which was also shown by LORD STAIR.

Though there were only three entries in Class 7, for any species of the Arboreum Series other than *arboreum* or its subspecies, different species were chosen for each, not as in 1957 when all the exhibitors chose *R. argyrophyllum*. The Crown Estate Commissioners were awarded first for the *coryanum* collected by FORREST (F. 20322), which they also showed in their exhibit in Class 2. SIR HENRY PRICE was second with a charming truss of *argyrophyllum* with twelve pale pink flowers, darker on the outside and carried on pale reddish pedicels. MR. E. DE ROTHSCHILD was third with a small very compact truss of rich light purple *niveum*. The curious colour of this rhododendron always evokes comment. There were no other entries. Class 8, for one truss of the Barbatum Series, attracted seven competitors, the EARL OF STAIR winning first prize with a large truss of pale pink *habrotrichum*. SIR HENRY PRICE's truss of the same species was awarded second prize as it was smaller and slightly



FIG. 15—An unusually fine specimen of *R. dalhousiae* in LADY DUNLEATH'S garden at Ballywater Park, Co. Down, Northern Ireland (see p. 99)



Photos, J. E. Downward

FIG. 16—*R. 'Ellesee'* A.M. May 5, 1959. An unusual form distinguished by a deep crimson blotch in its throat. Shown by CAPT. COLLINGWOOD INGRAM, V.M.H. The Grange, Benenden, Kent (see p. 163)



FIG. 17—*R. chaetomallum* (F. 25601) A.M. April 7, 1959. Shown by E. DE ROTHSCHILD, Esq., of Exbury, near Southampton (see p. 162)

mauve. It was, however, full and more compact. The Crown Estate Commissioners took third with *glischrum* (F25633).

Class 9, for one truss or spray of any rhododendron of the Boothii Series, was interesting in the fact that although all three prize winners chose *tephropeplum*, there was considerable variation in the size and character of the flowers. It is a beautiful species and the entries were well flowered and in perfect condition. The Crown Estate Commissioners' first-prize entry had small flowers of an exquisite clear pale apple-blossom pink, accented by brilliant red stigmas and small neat leaves. In contrast LORD ABERCONWAY'S form had much larger flowers, deeper red styles and stigmas, and larger leaves. This large-flowered form was probably collected by KINGDON-WARD, his forms being larger in leaf and flower than those collected by FORREST and FARRER. Third prize went to MRS. R. M. STEVENSON, who selected from the Tower Court collection an even deeper coloured form with smaller flowers than the Windsor entry. It was well flowered and very striking. Class 10, for a truss of the Campanulatum Series, had five entries. The EARL OF STAIR and Messrs. Walter A. Slocock Ltd. showed *campanulatum* for first and second prize respectively. LORD STAIR'S form was a rich deep violet while the other had larger more flaring flowers of a paler colour. CAPT. MURRAY ADAMS-ACTON was third with a still paler form. LORD ABERCONWAY showed a creamy yellow truss of *lanatum*. Class 11, for a spray of the Cinnabarinum Series, is always popular with the public. This year there were seven entries, LORD ABERCONWAY taking both first and second prizes with *concatenans* and *xanthocodon*. SIR HENRY PRICE was third with a dark form of *cinnabarinum* var. *roylei* which was particularly well flowered but unfortunately very few flowers were open at the time of judging. The Crown Estate Commissioners took a fourth with the Nepal form of *cinnabarinum*, with brilliant orange-red tubes paling to light orange at the tips and on the inside, giving a bicolour effect.

Class 12, calling for a truss of *falconeri*, was not as popular as usual. SIR HENRY PRICE'S fine truss with magnificent leaves was placed first. MR. M. HAWORTH BOOTH'S entry with larger flowers and a looser truss came second. MAJ. A. E. HARDY'S third-prize entry had the largest leaves of all and fine flowers but unfortunately these were rather damaged. Class 13, for a truss of *R. fichtolacteum*, could boast only two entries. The Crown Estate Commissioners showed a fine truss of ROCK'S heavily blotched and spotted form (R59250) and MAJ. HARDY took second prize with a smaller truss with a less pronounced blotch and little spotting. There were no entries in

Class 14. Class 15, for one truss of *griffithianum*, had three entries—LORD ABERCONWAY, MRS. L. J. DAVID, of Blackalden, Warberth, Pembrokeshire, and MR. E. DE ROTHSCHILD, who were placed in that order. The huge fragrant white flowers of this superb very tender rhododendron are always the envy of those who cannot grow it. In Class 16, for any rhododendron of the Fortunei Series other than *griffithianum*, there were thirteen entries, which seems a lot until we remember that in 1957 there were twenty-three. A lovely pale pink *fortunei* and a fourteen-flowered truss of *orbiculare* of bright rose-pink won first and second prizes for LORD ABERCONWAY, and a very pale pink *vernicosum* from MRS. E. G. KLEINWORT'S garden, Heaseland at Haywards Heath, was placed third. The other ten entries consisted of *orbiculare* and *decorum*. There were no entries in Classes 17, 18 and 20 for any rhododendron of the Fulvum, Grande and Lacteam Series, undoubtedly because of the advanced season.

Class 19, for a truss of the Irroratum Series, had only two entries. First place went to LORD ABERCONWAY for a lovely truss of the rhododendron which bears his father's name. In my opinion there are few more lovely species. The pure white flowers with a hint of green in the stigma and faint red spotting, coupled with their graceful shape and poise, have a peculiar charm for me. MR. DE ROTHSCHILD was second with a nice truss of *laxiflorum*, so called because of the loose flowers in the truss. Class 21, for any rhododendron of the Megacalyx Subseries, always excites enthusiasm and extravagant praise is in order. A magnificent five-flowered truss of *lindleyi* and a seven-flowered head of *nuttallii* gained first and second prizes for Windsor. The former, in perfect condition with the huge heavy-textured flowers standing out horizontal, filled the public with wonder and admiration. An acquaintance remarked: "I love it. It's so proud of itself." I knew what she meant. Coupled with its beauty is its marvellous scent. The flowers of *nuttallii*, pale yellow flushed apricot in their deep throats, were heavily ruffled and though extremely beautiful lack the bold form of *lindleyi*. Third place went to LORD ABERCONWAY for another great beauty, the cool greenish yellow *dalhousiae*, again heavily scented and with the flowers of great size. This was indeed a noble trio and a memorable one, for all three entries were outstanding and of rarity. Class 22, calling for a single truss of any other species of the Maddenii Series, attracted only two entries. From The Crown Estate Commissioners came a seven-flowered truss of *polyandrum*, the heavy-textured, white petals tinted with pink and green, and from the EARL OF STAIR a soft yellow *johnstoneanum* which ran a very close second.

Likewise in Class 23, calling for a truss of the Haematodes Subseries, there were only two entries. The Crown Estate Commissioners showed a five-flowered truss with bright scarlet flowers on long pedicels, while MR. DE ROTHSCHILD's first-prize entry had nine flowers of a deeper colour. In the class for the Neriiflorum Subseries MR. DE ROTHSCHILD, The Crown Estate Commissioners and LORD ABERCONWAY all selected *euchaites*, and awards were made in that order. LORD ABERCONWAY was the only exhibitor in Class 25 for *aperantum* and his lovely entry well deserved its first prize. The next class calling for any member of the Sanguineum Subseries was won by The Crown Estate Commissioners with a three-flowered truss of *haemaleum* with glistening black-crimson flowers, while MR. DE ROTHSCHILD's truss with six rather smaller flowers was placed second.

In Class 27, for a member of the Taliense Series, there were six entries. MR. DE ROTHSCHILD was placed first with a neat truss of *bureavii*, which was also shown by SIR HENRY PRICE and The Crown Estate Commissioners. MAJ. HARDY was second with a good truss of *sphaeroblastum* with light vivid green foliage and LORD ABERCONWAY third with a tight small truss of *roxieanum*, a species also selected by The Crown Estate Commissioners. The next class for *campylocarpum* had five entries with honours taken in the following order: LORD ABERCONWAY, THE MISSES E. & E. GODMAN and SIR HENRY PRICE, and in Class 29, for any other member of the same Subseries, The Crown Estate Commissioners staged a large branch of clear pink *callimorphum* (F27389) with a maroon splotch and darker contrasting buds. LORD ABERCONWAY showed the same species but it was less well flowered. MAJ. A. E. HARDY's pale yellow *caloxanthum* was the third entry but no award was given. The two entries in Class 30, for a truss or spray of the Selense Subseries, consisted of a branch with seven good trusses of *dasycladum*, pale yellow suffused pink with bright pink buds, which took first prize for LORD ABERCONWAY, and *selense*, shown by MR. DE ROTHSCHILD, which was not placed. In Class 31, for *williamsianum*, there were two entries but these were so poor that they also did not gain places.

Class 32, for a truss or spray of the Souliei Subseries, attracted five entries. The three winners, MR. DE ROTHSCHILD, MRS. R. M. STEVENSON and LORD ABERCONWAY, all selected *wardii*. The Fxbury winner was a clear yellow with a pronounced red blotch and red anthers. MRS. STEVENSON's entry had larger flowers of a cool greenish-yellow and the Bodnant form was similar with no blotch

and slightly smaller flowers. For the next class for a truss of the Thomsonii Subseries, the EARL OF STAIR, The Crown Estate Commissioners and SIR HENRY PRICE were placed in that order. Class 34, for a spray of *schlippenbachii*, had only two entries, as this species was largely over. LORD ABERCONWAY's large well-coloured form with delicate spotting and tender green foliage was placed ahead of MR. DE ROTHSCHILD's slightly paler one, but it was a very close decision. Class 35, for any deciduous rhododendron of the Azalea Series, had ten entries, making it one of the more popular classes. The EARL OF STAIR took first prize with a lovely coloured *vaseyi*; MRS. R. M. STEVENSON was second with *kaempferi*, with orange-red flowers in profusion which stood out among all the pinks and purples of the other entries. LORD ABERCONWAY was third with *vaseyi*, also the choice of five other exhibitors, while Messrs. Waterers selected *reticulatum*. LORD ABERCONWAY and The Crown Estate Commissioners were the only entrants in the next class for three deciduous species of the Azalea Series. The former won with a violent magenta *reticulatum*, a striking flower with a clear-cut silhouette, a fine *vaseyi* and an unusually large-flowered *schlippenbachii*, while Windsor chose *luteum*, *roseum* and *vaseyi*, all of which were exceptionally well flowered. Class 37, for a spray of the Anthopogon Series, attracted five entries. MR. DE ROTHSCHILD and The Commissioners of Crown Lands both selected *trichostomum* var. *ledoides*. The former was placed first with a richer pink form although the Exbury form had larger trusses. These enchanting little clusters of crinkled pink flowers not unlike a daphne always cause exclamations of wonder from the novices as they find it hard to believe that this lovely species is a rhododendron. The Crown Estate Commissioners took third place with a cool greenish yellow *sargentianum*. There were no entries in Class 38.

Bullatum was selected by both The Crown Estate Commissioners and LORD ABERCONWAY in Class 39, for the Edgeworthii Series. The latter's form was considerably more tinged with pink and had larger more glistening leaves, although it was awarded second place by the judges. Class 40, for the Glaucophyllum Series, boasted nine entries. The EARL OF STAIR was placed first with a lovely apple-blossom pink *charitopes* with darker stippling and jade-green stigmas. SIR HENRY PRICE's charming *glaucophyllum* with rich pink tubular flowers and MR. DE ROTHSCHILD's fine violet-coloured *tsangpoense* var. *pruniflorum* were placed second and third. These three species offered an interesting and delightful contrast within the series. There were no entries for the Heliolepis Series. Class 41, the Lapponicum

Series, is always popular, and this year was no exception as there were ten entries. Again, each of the prize winners had selected a different species. The Crown Estate Commissioners were first with *chryseum*, a pale yellow with prominent stamens. LORD ABERCONWAY showed the best spray of the very rich blue-purple *russatum*, a species favoured by three other exhibitors, and LORD ABERCONWAY was third with a fine *impeditum*. This is a delightful class as the Lapponicum Series is ideal for rockeries and smaller gardens. Three entries only graced Class 43 for the Series Lepidotum. LORD ABERCONWAY took first prize with the little-known *baileyi*, with small violet flowers with bright red pedicels. The Crown Estate Commissioners took third place with a paler but redder form and second place with a yellowish form of *lepidotum*.

Class 45, for the Saluenense Series, is another very attractive one. The Crown Estate Commissioners and MRS. R. M. STEVENSON selected *calostrotum* for which they won first and second. The Windsor plant had fine large flowers of rosy purple set off by the pale jade-green of the new foliage and the darker green of the old. SIR HENRY PRICE took third prize with the less familiar *chameunum*. LORD ABERCONWAY also staged *saluenense* and *calostrotum*, making a total of five entries. Only two prizes were given in Class 46, for the Scabrifolium Series, first going to MRS. R. M. STEVENSON for a vivid pink *spiciferum* with its protruding stamens white tipped black and very narrow leaves, and second to MR. DE ROTHSCHILD for the curious *spinuliferum* with its narrow upright tubular flowers which combine crimson and brick-red with accents from the protruding anthers and stamens. There were no entries in Class 47, for the Virgatum Series, and only four in Class 48, for the Trichocladum Series, in which the type species won a first for LORD ABERCONWAY and a second for MR. DE ROTHSCHILD, the two other entries of this same species not being placed.

Class 49, for *augustinii*, is always contested and always spectacular as the large well-flowered flat sprays are completely covered with colour. This year The Crown Estate Commissioners won the coveted first prize with a very big spray of fine blue flowers with red stigmas and pinkish stamens. MR. E. DE ROTHSCHILD's fine olive-spotted form was second, and LORD ABERCONWAY's slightly stronger blue with very ruffled petals came third. Class 50, for the Augustinii Subseries other than the type, also had five entries, all of whom selected *chasmanthum*. Of these CAPT. MURRAY ADAMS-ACTON's first-prize entry with fine rounded trusses of a good clear violet-blue with olive markings and stippling, SIR HENRY PRICE's

smaller trussed form, with more pronounced stippling, and MAJ. HARDY's attractive white form, with loose trusses, were outstanding. Class 51, for the *Oreotrephes* Subseries, attracted eight entries, seven of which were the type species and one *artosquameum*. For a lovely spray of the former with large rich mauve-pink flowers and gleaming foliage, MRS. J. L. DAVID, of Blackalden, Narberth, Pembrokeshire, received the first prize. MAJ. A. E. HARDY was placed second with a slightly bluer form with less even trusses, and MRS. R. M. STEVENSON, third, with a KINGDON-WARD plant (KW9505) with small flowers with pronounced reddish spotting.

In Class 52, for the *Polylepis* Subseries, *pseudoyanthinum* of an unusual claret-red won first place for The Commissioners of Crown Lands, *concinnum* shown by SIR HENRY PRICE was second and a lighter coloured form, with slightly larger more spotted flowers, from The Commissioners of Crown Lands was third. The *Triflorum* Series called for in Class 53 again had five entries, the three prize-winners selecting *bauhiniiflorum*. MR. DE ROTHSCHILD, LORD ABERCONWAY and The Crown Estate Commissioners were placed in that order. The two unsuccessful candidates showed *ambiguum*. One of the largest classes for a species in the show was Class 54, for the *Yunnanense* Subseries. Outstanding was LORD ABERCONWAY's *caeruleum album*, a solid mass of flower tinged with pale pink and faint gold spotting. Second prize went to The Crown Estate Commissioners for a huge spray of *yunnanense*, and third to MAJ.-GEN. E. G. W. W. HARRISON, of Tremeer, St. Tudy, Bodmin, for *caeruleum album*. Other species included *davidsonianum*, *chartophyllum* and *hormophorum*. Class 55, for any species not included in the foregoing classes, produced four entries, of which the first-prize exhibit from The Crown Estate Commissioners, a lovely spray of *carolinianum* var. *album*, was one of the outstanding exhibits in the whole show. The compact even trusses of about thirty creamy white flowers, slightly tinged with pink and with pale green spotting, were striking. For the rose-pink type form of the same species MRS. R. M. STEVENSON received a second prize. There were no other awards. MAJ. HARDY exhibited *cerasinum* and MR. C. E. SEXTON, of Cofield, Redhill, Surrey, *smirnowii*, a little-known species of the *Ponticum* Series.

Section II, for hybrids, had a comparable number of entries to Section I, for species. It was again thinner than usual, for the hybrids as well as the species were affected by the season. Class 61, for a single truss of eight hybrids, made a particularly appealing display. MR. DE ROTHSCHILD's group which took first place was

outstanding. It included 'Yvonne Dawn' with very large pale pink flowers, over 3 inches across, 'Loderi King George', 'Matador', 'Kiev', the lovely yellow 'Gold Crest', a superb heavy-textured cream and pink 'Naomi' and two fine deep reds, 'Gibraltar' and 'Queen of Hearts'. The Crown Estate Commissioners were second with a very tall truss of 'Easter Bonnet' with large candy-pink flowers, 'Loderi Pink Glamour', a ten-flowered truss of 'Cornish Cross', a hybrid between 'Manglesii' and *griersonianum* with pink flowers accented with red stamens and vivid red pistils, Loderi \times 'Sarita Loder', a noble truss of 'Hawk', the well-named 'Grenadine' and another unnamed hybrid. Third prize went to Messrs. Waterers, Sons & Crisp, for a group including 'Pink Pearl', 'Helena', 'Susan', 'David', a very large truss of the bright pink 'Beaulieu', 'J. H. Van Nes' and 'Geoffrey Millais'. The inclusion of some of the older hardy hybrids in this group was welcome as they are attractive on the show bench.

Class 62, for a single truss of three hybrids, had nine entries. The Crown Estate Commissioners' winning group contained 'Naomi', a fine very deep red truss of 'Kiev' and an attractive large-flowered yellow of Loderi \times *wardii* parentage. The MISSES E. & E. GODMAN chose 'Loder's White', a dazzling pink 'Coronation Day' with very large flowers, and 'Leonardslee Gem'. Third prize went to MR. E. G. KLEINWORT, for 'Loderi King George', 'Coronation Day' and 'Beauty of Littleworth'. Class 63, calling for the same entries but limited to exhibitors who did not win prizes in Class 61 or 62 in 1954 or subsequently, was won by MRS. J. M. K. FOX, of Penjerrick, Falmouth, with a lovely creamy white 'Penjerrick', a very large 'Loderi King George' and 'St. Keverne'. Second prize went to MR. E. G. KLEINWORT, who this year had been successful in Class 62 as well, and MR. R. STRAUSS, of Stonehurst, was third with the soft cream 'Letty Edwards', a good truss of 'Naomi' and a pink 'Loderi'. MRS. G. M. GOSNEY showed fine trusses of 'Matador' and of 'Mrs. G. W. Leak' in her two entries. Class 64, for sprays of three hybrids, was extremely colourful and each of the four entrants showed widely varying plants. MR. DE ROTHSCHILD, for example, had selected 'Naomi', the strong blue 'Electra', and the large pale yellow 'Idealist' for his group which received first prize, while LORD ABERCONWAY showed 'Bodnant Yellow', a superb spray of 'Coreta' and the heavily scented, delicate white 'Suave'. This was a particularly pleasing trio as each varied so much in leaf, flower form, and colour, scent being provided by the *maddenii* cross. Third prize went to SIR HENRY PRICE for a lovely spray of

'Perseverance', a *cinnabarinum* hybrid with dark foliage and gleaming pendulous flowers; 'Robin Red Breast' and a *fortunei* hybrid.

Class 65, for a single truss of a hybrid, had twenty entries competing for the coveted Loder Challenge Cup, which was won by MR. DE ROTHSCHILD with 'Crest', his F.C.C. clone of the familiar Hawk. MRS. J. M. K. FOX was second with a cross between 'Loderi Pink Diamond' and (*griffithianum* \times *fortunei*). This had very large pale pink flowers with jade-green stigmas, and a delicious scent. Third prize was awarded to The Crown Estate Commissioners for a delightful *souliei* \times *aberconwayi* with an open truss of pendulous pink flowers borne on long arching red pedicels. It was a delightful flower and plainly showed inherited characteristics from its two illustrious parents. The EARL OF STAIR entered a fine five-flowered truss of *R. lindleyi* \times *taggianum*. There is always keen competition in Class 66 for single trusses of six hybrids raised by or in the garden of the exhibitor. First prize went to MR. DE ROTHSCHILD for 'Idealist', 'Crest', 'Naomi', 'Gibraltar', 'Gypsy King' and 'Yvonne Dawn'. SIR GILES LODER was second with 'Loderi Princess Marina', 'Gem', 'Sunkist', 'Queen Wilhelmina', 'Red Glow' and 'H. Whitner'. Third prize went to LORD ABERCONWAY for 'Sunrise', 'Coreta', 'Gretia', 'Fair Maiden', 'Cornish Cross' \times 'Kewense' and a *griersonianum* cross.

In Class 67, for sprays instead of single trusses, LORD ABERCONWAY was awarded both first and second prizes, and MR. DE ROTHSCHILD third. Class 68, for the fine old hardy hybrids, classified as "A" or "B" for hardiness, had ten exhibitors, of whom Messrs. Waterer were awarded first prize. Messrs. Walter O. Slocock Ltd. took second prize, MR. M. HAWORTH-BOOTH third, and MR. E. G. KLEINWORT's exhibit was highly commended.

As it is impossible to list all the winners in the other classes for hybrids, only a few highlights will be noted. In Class 70, for a single truss of Loderi, there were fifteen entries. Fittingly, SIR GILES LODER's superb truss of 'Loderi King George' received first prize. MRS. J. M. K. FOX was second with 'Loderi Pink Diamond'. There were seven entries of 'Loderi King George', and other clones included 'Loderi Venus', 'Loderi Pink Gleam' and 'Loderi Pink Coral'. This year Class 73, for the beautiful 'Penjerrick', had only five entries. The winners in order of their awards were MRS. J. M. K. FOX, MR. DE ROTHSCHILD, and the EARL OF STAIR. Class 74, for a truss of the *Campylocarpum* or *Souliei* Subseries was won by MR. DE ROTHSCHILD with the delightful yellow 'Carita'

with his 'Hawk' in second place. Third prize went to Mr. HAWORTH-BOOTH for a very good truss of an unnamed *wardii* cross. All the prize-winning plants were yellow, although there were three pinks entered.

Class 76, for a hybrid of *R. thomsonii*, was very popular, as evidenced by the eighteen entries. SIR GILES LODER was awarded first prize for a large well-spaced truss of 'Red Glow'. Mr. E. M. KING of Embly Park, Romsey, was placed second with a fine truss of 'Luscombei' with pink-red flowers overlaid with a soft bloom, and The Crown Estate Commissioners were third with 'Cornish Cross'. Class 78, for a *griersonianum* hybrid, was won for The Crown Estate Commissioners by a very large shapely truss of the vivid 'Grenadine'. Messrs. Waterer's truss of the well-named 'Bonfire' and Mr. DE ROTHSCHILD's 'Ibex' were placed second and third. One of the most charming of all the classes is Number 80, for any hybrid of the Cinnabarinum Series. CAPT. MURRAY ADAMS-ACTON filled both first and third places with his wonderful 'Perseverance' and the much smaller flowered but striking 'Cinnkeys'. Mrs. STEVENSON's fine 'Lady Rosebery' was placed second.

Just as Classes 21 and 22, for species in the Megacalyx Subseries and the Maddenii Series, contained some of the most beautiful and heavily scented rhododendrons, so, too, Class 81, for a Hybrid, one of which parents is a species of the Maddenii or Edgeworthii Series. LORD ABERCONWAY showed three trusses, each with four flowers, of 'Tyermannii', a cross between *formosum* and *nuttallii*, with huge fragrant trumpet flowers, white heavily overlaid with gold in the throat. The Commissioners of Crown Lands were second with the much loved 'Fragrantissimum', the pure white flowers set off by the glistening dark green leaves. Mr. DE ROTHSCHILD was third with his father's fine hybrid 'Chaffinch', a cross between *ciliatum* and 'Countess of Haddington'.

In Section III, for miscellaneous exhibits, there was little of note, although there were several very attractive classes such as Class 101, for a spray of an evergreen rhododendron of the Azalea Series. The Crown Estate Commissioners' first-prize exhibit was a great domed mass of the brilliant pink 'Kathleen', each flower flushed with deeper colour in the centre and accented with red stamens. Mr. HAWORTH-BOOTH, in second place, staged the deep orange-red 'Addy Wery', which made a splendid clash with Mr. DE ROTHSCHILD's fine spray of magenta-purple *amoenum*, which was so covered with flowers that it was hard to see the leaves.

Class 102, for one spray of three evergreen species of the Azalea

Series, attracted six entries, first prize going to The Crown Estate Commissioners, second to SIR HENRY PRICE, and third to MRS. STEVENSON. In Class 107, for rhododendron foliage, there were only two entries. First prize was given to SIR HENRY PRICE for leaves of *basilicum*, *coryphaeum*, *rex*, *grande*, *macabeanum* and *arizelum*. MR. DE ROTHSCHILD'S second prize group contained *sinogrande*, *wasonii*, *fulvum*, *bureavii*, *lanatum* and 'Sir Charles Lemon'.

THE SEATTLE CHAPTER (American Rhododendron Society) 1959 RHODODENDRON SHOW

By HARRY R. MADISON
(Seattle, Washington, U.S.A.)

THE tenth annual show, favoured by good weather and good growing conditions, excelled most previous years in condition of plant material. This year, as in 1958, the show was held at the Bellevue Square Pavilion in Bellevue, Washington, and it was co-sponsored by the Greater Bellevue Chamber of Commerce. The peak of the blooming season was a little later than normal, and the show dates, beginning on May 21, were propitious for bringing out an excellent display of plants and cut trusses. MR. RALPH JACOBSON, the President of the Society, and MRS. RALPH JACOBSON, the Show Chairman, combined their efforts to make this show a success.

Landscape Display Section: The top honour in the commercial landscape displays went to the Homestead Nursery and Floral Company, the second time winner of the Frederick and Nelson Perpetual Cup. This display in the large-size class, over 200 square feet, depicted a woodland scene with a running brook through a rockery green with moss and leading to a pool. Reflected in the pool along its edge were a group of azalea 'Rosebud' in their clear pink. These low-growing double azaleas were about 20 inches high. In another group nearby were some good blue forms of the miniature *R. impeditum*. Associated with these were the Swedish lingenberry, *Vaccinium vitis-idaea*. Overhanging the pool were maidenhair ferns, *Adiantum pedatum*, a native to the moist locations in the mountains on the west coast of North America. Close to the brook were the pure white azaleas with a greenish throat, called 'Wendy'. These plants averaged 16 inches high. Other associate plants were native huckleberry, *Vaccinium ovatum*, and farther back from the shoreline of the pool were a group of lovely Sherwood spruce, *Picea excelsa* 'Sherwood', fresh in their new foliage. Contorted shore Pine, and several *Leucothoe catesbaei* with their white pendulent flowers, were the companion plants close by. As one looked farther back into the woodland one was attracted by a beautiful small *R.* 'Dormouse' about 18 inches high. The bright pink bell-shaped flowers dangled from nearly every branch terminal. There were a 'Mrs. Furnival',

several good 'Bow Bells', 'Countess of Derby' and 'Goldsworth Yellow' included with the rhododendrons, as well as a group of Azalea 'Narcissiflora'. Sprawling from a rock ledge, and overhanging the pool, was a distorted low-growing R. 'Pink Pearl'. Above it were several golden dwarf maples, *Acer palmatum aureum*. The entire woodland scene was covered with green moss, which had a most delightful and natural appearance.

Second-place award winner in the large area landscape display were the Rhod-A-Zalea Gardens. This was also a lovely woodland scene executed in an artistic and natural manner. It was a most pleasing and simple exhibit. The leading feature of the display was a large sprawling plant of the old favourite 'Albert'. This lavender rhododendron with the prominent green blotch was 3 feet high and 4 feet across, with nearly every terminal a flower truss. Never has such a fine shaped and perfect specimen been shown here and small wonder that it received the Seattle Trust and Savings Bank Perpetual Cup for the best plant in the show.

The top winner in the less-than-two-hundred-square-feet landscape displays was E. PERRINE. It was an excellent example of what can be done in the modern trend with cedar log sections of various diameters as stepping blocks on various levels in a patio style. A group of seven 'Queen Mary' rhododendrons and a R. 'Eureka Maid' in soft red colours provided the basis for the colour mass. Azaleas and associated plants complemented this basic display. Some people might be critical of the use of house-leek, the *Sempervivum*, commonly termed "hen and chickens", with rhododendrons as associated plants, but for display purposes, the combination of the various species of house-leeks among the vertically placed cedar log sections was most effective. *S. tectorum* was used for the foreground in front of the log cross sections. Split cedar planking formed a background wall of delicate texture. A 3-foot blue spruce and weeping Koster spruce, *Hosta variegata*, and the native vine maple, *Acer circinatum*, and *A. palmatum*, provided a suitable and attractive continuation of the background. A group of 8 to 10-inch 'White Squall' azaleas added emphasis and character to the colour combination.

Second place in the less-than-two-hundred-square-feet landscape displays was Seven Firs Nursery. The focal point of this exhibit was a dry stream bed with surrounding rockery. Rhododendrons in red and white colours were the predominating feature and included such rhododendrons as 'Elizabeth' and the evergreen azalea *R. mucronatum*.

Other contestants in both classes of the landscape displays were King of Shrubs Nursery, Pacific North-west Nurseries, Mt. Ranier Alpine Gardens, Hopkins' Nursery, Wights' Nursery and Landscape Service, P-X Sooper Nursery, and Bonny Brook Nursery. All of them had beautiful landscape displays and it was difficult to select the winners from so much good material.

As usual, the University of Washington Arboretum had an outstanding display of rhododendrons, azaleas and associated plants. There were a number of new hybrids of unusual quality among the rhododendrons. MR. BRIAN MULLIGAN, the Director of the Arboretum, was responsible for staging this special exhibit.

Specimen Plants Section: Amateurs: The best plant in this section was a 3-foot by 4-foot-wide plant of R. 'Souvenir of W. C. Slocock'. It was an outstanding specimen loaded with blooms. It also received the award for second best plant in the show. The winner was MRS. JAMES MADISON. Second best plant was a delightful R. 'Corona', 20 inches tall and 24 inches wide. This specimen plant also won the award for the third best plant in the show. RALPH C. JACOBSON was the exhibitor. A huge R. 'Mrs. Furnival', 7 feet tall and in perfect condition, won third place for DR. JOHN SCHISCH. Other winning plants in the section were azalea 'Sekidera', won by ED. ARNSTERN, *R. obtusum japonicum*, by MRS. HELEN CULLETON, and azalea 'Guy Yerkes' by MRS. E. L. IRVINE.

Cut Blooms Section: Amateurs: The best cut truss in the show raised by an amateur was an 'Alice' that measured 8 inches high and 8 inches across—truly a remarkable rhododendron specimen. The recipient of the Greater Bellevue Chamber of Commerce trophy for this best truss in the show was MRS. JAMES MADISON. Another first place award went to MRS. JAMES MADISON for a spray of the species *yunnanense*.

Out of a total of 250 cut-truss entries, the following were some of the first place winners for the classes:

Class 17	Hybrid R. 'Butterfly' by WM. COLOIL
„ 18	„ R. 'Mother of Pearl', by MRS. WM. PATTEN
„ 20	„ R. 'Trilby', by MRS. E. L. IRVINE
„ 23	„ R. 'Blue Peter', by MRS. A. BRAUSS
„ 24	„ R. 'Mrs. Furnival', by MRS. WM. PATTEN
„ 25	Azaleodendron 'Broughtonii Aureum', by Art Dome

- Class 26 Azalea *R. mucronatum album*, by MRS. WM. PATTEN
 „ 27 Hybrid azalea 'Persil', by DONALD GRAHAM
 „ 28 „ azalea 'Louise Gable', by MRS. CHAS. SULLY
 „ 32 Species *R. trichostomum radinum*, by MR. M. CALLERINO

Open Classes: Cut Blooms Section: The winning seedling rhododendron in the cut-truss open section was a complex cross of ('Alice' \times *auriculatum*) \times 'Mrs. Donald Graham', which was originated by the late ANDRE OSTBO and exhibited by MR. OWEN OSTBO.

Hybrid Seedling Rhododendron Class: This class was for a flowering seedling plant not previously exhibited and the result of hybridization made in the state of Washington. The class was open to amateurs and professional growers alike. There were twelve entries in this class. The winning plant was a *catarwbiense album* \times 'Fabia'. The 3-foot plant had ten flower trusses measuring 6 inches in diameter and 5 inches high. There were from nineteen to twenty-one blooms $2\frac{3}{4}$ inches in diameter by $1\frac{1}{4}$ inches. The colour of the bloom was the unusual feature of this award-winning plant. Its bright luminous yellow corolla, edged in pink, was an innovation in colours. The calyx, large and prominent, was also a bright yellow. The plant was well covered with dark green leaves averaging $1\frac{1}{2}$ inches by $5\frac{1}{2}$ inches long. Parentage of this new hybrid would indicate a hardy garden cultivar. It won the Seattle Rhododendron Society Achievement Cup and the Preliminary Plant Award for its originator and grower, HALPHDON LEM, of Lem's Nursery of Seattle.

One of the finest seedlings of the many exhibited by LESTER BRANDT was a brilliant red cross of 'Britannia' \times 'Tally Ho'. It was a comparatively young plant with only a few flower trusses, but each truss measured 7 inches in diameter by 6 inches high. The twenty-one individual flowers to a truss were 3 inches across and 2 inches deep. A faint dark spotting on the upper lobe of the corolla was the only marking which otherwise was a clear orange-red. The plant retained its three-years-old leaves. The leaves averaged $2\frac{1}{4}$ inches by 7 inches long and were of a bright green colour.

After seeing the hybrid seedling classes and a number of gardens in the Puget Sound Area, MR. DAVID G. LEACH, of Brookville, Penn., U.S.A., a world traveller and a rhododendron and azalea authority, expressed the opinion that the future is extremely

bright for the introduction of many fine locally developed new rhododendron hybrids which have flowered and are now under propagation.

The interest created by this annual show should do much to stimulate greater efforts in better cultural methods for rhododendron gardeners. It also should do much to spur the hybridizer towards the creation of better varieties for the garden.

11th ANNUAL TACOMA RHODODENDRON SHOW

By LEONARD F. FRISBIE

THE Washington Rhododendron Society, Inc., staged the 11th Annual Tacoma Rhododendron Show in the Oakland Community Centre, Tacoma, Washington, on May 9-10, 1959. The show was quite extensive, and overflowed the building on to the two wide, covered porches. It utilized more floor space than any previous exhibit. Enthusiasm for rhododendrons is increasing in the Pacific North-west, and public response was evidenced by the largest attendance ever enjoyed at one of our shows. The number and quality of the plants was highly satisfactory, and the variety of the material on display was up to our usual standard.

The Gardener Assistance Programme of the Society brought out the "proof of the pudding" that the average home gardener can succeed with the rooting of cuttings and the growing of species from seeds. GEORGE BETTS, of Rochester, won the Affiliated Societies' Silver Gilt Medal (R.H.S.) for a portable plastic tent display for the summer rooting of soft-wood cuttings. MRS. ROSE TORRE and MRS. CHARLES FOISE, sisters from Fife, Washington, won the Silver and the Bronze R.H.S. Affiliated Societies' Medals respectively for decorative flats with rooted cuttings and seedlings arranged in miniature garden fashion. MRS. GEORGE BETTS, of Rochester, Washington, worked out the same idea in attractive fashion and was awarded a blue ribbon. Members who brought propagating material to our show represented only a small section of the work of this type that is being carried out all over western Washington. Cuttings from top-grade plants are distributed to members annually by the thousands.

A special phase of this work concerns the introduction to the area of a notable collection of evergreen azaleas assembled by DR. E. J. KRAUS, who is doing Post-Retirement plant breeding at Oregon State College at Corvallis, Oregon. This is a remarkable collection and many of the plants are not available commercially in the country. They include Glenn Dale sorts selected for west-coast performance and for quality, many Japanese sorts including dwarf creepers, and U.S. Dept. of Agriculture introductions. Through the generosity of DR. KRAUS huge quantities of cuttings have been taken from these plants, and nice, little bushy plants turned up at our show, and are

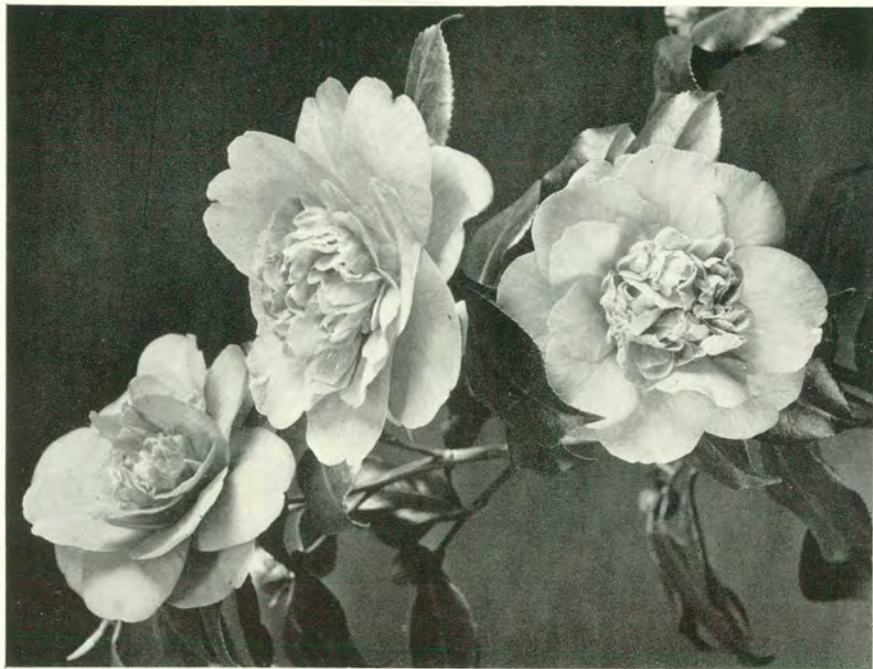


FIG. 18—A remarkable display of evergreen azaleas in 1873 at Bath (see p. 99)



Photo, J. E. Downward

FIG. 19—An unusually fine specimen of a greenhouse azalea grown by MRS. K. MOORECROFT, of Upper Gatton, Reigate, Surrey. The plant has been in her possession for about 15 years and flowers each year freely. The colour is pale pink and the plant is now 72 inches round and 60 inches over the top of the bloom. In summer the plants are left in their pots and dug into the earth in a shady place and kept watered



Photos, J. E. Downward

FIG. 20—*Camellia japonica* 'R. L. Wheeler' A.M. March 24, 1959, Shown by Messrs. J. Waterer, Sons & Crisp Ltd., Roehampton, Surrey (see p. 167)

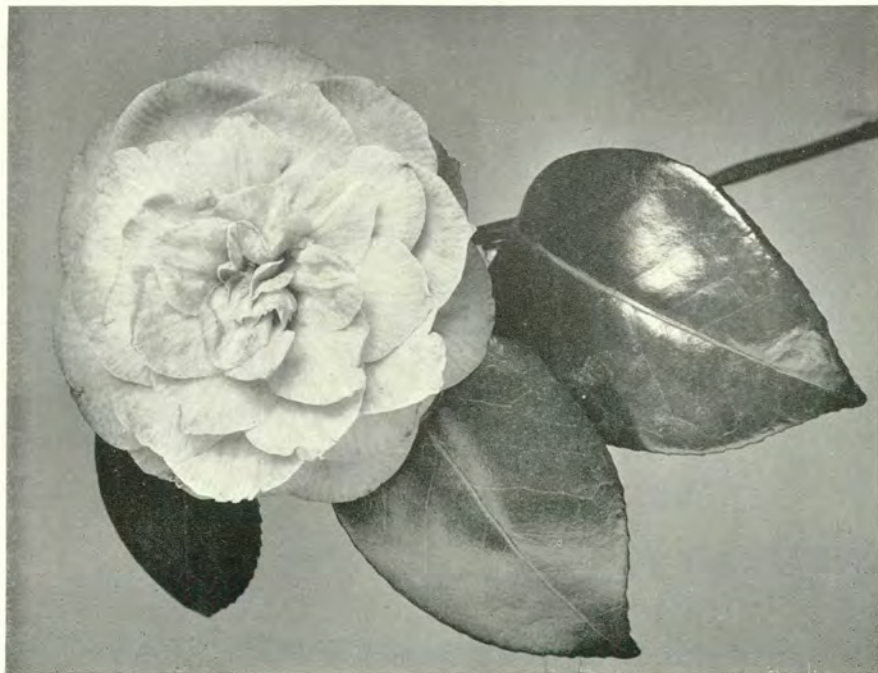


FIG. 21—*Camellia japonica* 'Rubescens Major' A.M. March 24, 1959, Exhibited by Messrs. J. Waterer, Sons & Crisp Ltd., Roehampton, Surrey (see p. 167)

growing quite generally throughout the area. From the Lemons Beach Garden cuttings have been distributed from a number of *R. kaempferi* × *Malvatica* hybrids, from a small group of Gable hybrids, from two newly named cultivars, 'Pink Cloud' and 'New Morn', and from a single Kurume, 'Hi No Mayo'. This makes up a varied group of material, and most plants in the group have high-quality flowers, many quite large and bold. It is possible to have a varied contour in a planting of the group, and a graduation in height, all of which seems to please gardeners here more than a rather flat carpeting effect.

I. S. BROXSON, of Tacoma, took the Sweepstakes Award for Best Plant in Show with the hybrid, 'Idealist'. This is a fine one, and it is not as yet widely grown in the area, but this fine plant created lively interest and demand. The HACANSONS, ROY and HONORÉ, of Puyallup, Washington, won the President's Cup for the highest total of award points. They staged a beautifully landscaped display featuring many nice hybrids and species. Dwarf Mugho pines along with attractive companion material won a first place, as did a quality plant of *R. carolinianum* f. *album*. A group of plants of the dwarf hybrid 'Carmen' brought a first place to the HACANSONS, and attracted a great deal of favourable comment.

MRS. LEONORA McCARTY, of Gig Harbor, Washington, brought a large plant of 'Loderi King George', a group of plants of the always pleasing 'Bow Bells'. A large number of varied evergreen azaleas won a first place, as did a species group featuring *R. chryseum* and *R. intricatum*. Plants of 'Earl of Athlone' and 'Madame Fr. J. Chauvin' added much to the display.

JAMES HARTLEY, SR., of Tacoma, brought evergreen azaleas and some very interesting hybrids of *R. occidentale* with clear pink flowers. CLAUDE PARKINSON, of Tacoma, featured 'Hon. Jean Marie de Montague' along with *R. mucronatum album* and pink azaleas of unknown origin. NORMAN MOSESON, of Tacoma, carried out an attractive colour scheme of red, pink and white azaleas. The Metropolitan Park District of Tacoma staged a complementary display featuring many types of plant material, chiefly rhododendrons and azaleas. This exhibit was staged under the direction of HOWARD HARMON, a master of floral art, and it was truly a beautiful thing to see.

DR. CHARLES S. BERRY and LEONARD F. FRISBIE staged a non-competitive display featuring many types of hybrids, azaleas and species from Lemons Beach. A new cultivar in this display attracted unusual attention from devotees of deciduous hybrid azaleas.

DR. J. S. YEATES, of Palmerston North, New Zealand, has been carrying on a continuous hybridizing programme, using fine clones of Ilam azaleas, created by the late EDGAR STEAD. Seeds of the cross $C_4 \times$ 'Brick' were sent to the United States by DR. YEATES and the new hybrid is a seedling from this cross. It has been named 'Melford Glory', and is conceded to be among the top quality deciduous azalea hybrids in the orange class. Flowers are $3\frac{1}{2}$ inches to 4 inches across, eight flowers to the truss, which is 6 inches across. The flowers are wide open and flat, slightly ruffled, and the upper lobe has a tendency to divide, giving six lobes and a squarish form. The colour is Tangerine Orange, H.C.C. 9/1, and the wing tips are highlighted with Capsicum Red, H.C.C. 715/1. DR. YEATES has advanced the quality of the Ilam strain with this remarkable azalea, and there is strong indication that quality clones of the deciduous azalea hybrids have a dormant potential that can be realized in subsequent crosses. Local work within our own Society will substantiate this when results are made public.

NORMAN MOSESON, of Tacoma, was Chairman of this very successful show, and it was enthusiastically received by a wide public. The show management was pleased with the large number of plants of species on display and by the interest these aroused. Many members were excited by a huge plant of *R. fortunei* because they are growing small plants of the species.

R. occidentale Tacoma No. 158 proved to be a star attraction this year because of its highly colourful performance and charming habit. This wilding, brought north in 1956, came into its own this year, and surpassed anything shown in its native habitat. It took time to establish the plants under domestic conditions, and to achieve good, strong growth, but once that was accomplished plants in full sun were amazing. Deep red buds with pink, white and yellow flowers set among deepest bronze-red foliage gave startling beauty, and many plants produced petaloid doubleness in the flower. Only plants grown in full, open sun were colourful. Plants in partial shade were pale and uninteresting. Those in England who are interested can see plants of this form of the species at Edinburgh, at Wisley and at MR. FREDERICK STREET'S Nursery. This is a selected form, of course, and it, along with many other fine forms, was found by diligent searching over wide areas of California and Oregon, and the close investigation of thousands and thousands of plants. One true dwarf form, all deep pink in flower, was found in the spring of 1959, and will be brought north early next winter.

RHODODENDRON NOTES

R. dalhousiae at Ballywater Park, Co. Down

THIS rhododendron was grown at Mount Stewart, Co. Down, and given to the late LORD DUNLEATH by the late LADY LONDONDERRY as a small plant in 1937.

It was put into the nursery for a year, when it was planted out in the place where it still is. It is now about 12 feet high and about 27 to 28 feet round, and is well grown and not of straggling habit. It first flowered in 1939, when it had two trusses; since then it has flowered every year, and for the last three years has been really remarkable, a mass of trusses, exquisitely scented. (Fig. 15)

It grows on a slight slope surrounded on three sides by a thick screen of fuchsia and *Griselinia littoralis*; to the south-west it is sheltered by distant trees, but gets the afternoon sun.

Quite a lot of peat, and some leaf mould was added to the ordinary soil when it was planted, and every other year or so a mulch of the same mixture has been given. Several layers have been successfully grown, these are now about 4 feet high, and several of them flowered this year.

GRACE, LADY DUNLEATH

Ballywater Park,
Co. Down, Northern Ireland.

A Remarkable Display of Evergreen Azaleas in 1873

A little while ago I came across a photograph (fig. 18) of what I think must have been a rather remarkable display of evergreen azaleas exhibited in Bath in May 1873, and it may interest readers of the *Year Book* as an example of the standard of cultivation some eighty-six years ago. The tent was 250 feet \times 38 feet and filled, presumably, with azaleas. According to an excerpt from the local Press of the time, kindly extracted for me by a friend on the *Bath and Wilts. Chronicle and Herald*, "One well-known exhibitor in former years said that the sight in this tent could not be excelled in

any part of England. There were 126 plants exhibited. Some of the tallest plants must have been 8 or 9 feet high and all of them beautifully furnished with flower indicating a particularly high standard of cultivation."

The Avon and Kennet canal runs through the Sydney Gardens where the show was held and I have been told that many of the plants were brought in barges on this canal direct to the gardens from the Bristol and Wiltshire areas. Of course, Bath at that time had many gardens of high repute.

The report mentions the following varieties, now mostly lost.

One collection was distinguished by a beautiful specimen of the 'Flag of Truce' (semi-double) white variety, a large 'Coronata' and one of a striking variety, 'Prince of Orange'. Another collection included the 'Duchess Adelaide de Nassau', 'Madame Ambrose Verschaffelt', and a beautiful azalea 'Magnificans'.

Messrs. Bryant and Hoskens, of Bristol, exhibited a beautifully coloured 'Iveryana' and the 'Duke of Nassau'.

For nines Messrs. J. G. Wheeler, of Gloucester, took first prize with a collection which included a fine plant of the yellow variety 'Sinensis', specimens of which are rarely exhibited, and a finely flowered 'Gladstonesii Formosa'.

For six new varieties Messrs. Wheeler and Sons won the first prize. Among their plants a pure white variety, 'Leonie van Houtte', was especially noteworthy. The semi-double variety 'Comtesse de Flandres' and 'Mlle. Marie van Houtte' also attracted attention.

ALLAN G. LANGDON

Bath, Somerset.

Pruning of Old Azaleas

We have a lot of azaleas ranging from 36-year-old plantings to the hybrids we are now making. Having a little extra help for a change I decided to "spring clean" the azaleas. A 15-year-old planting of Knaphill seedlings needed a little attention, a bit of old wood to be cut away as they were growing into each other. A 20-year-old planting of Dutch seedlings needed severe pruning—indeed I about halved the bushes in my enthusiasm, leaving only strong young wood and thus making way for new shoots. The original 36-year-old plantings were in desperate need of attention and by the time they had had a thorough going over there was only about

a third of each bush left. But all show plenty of signs of life and will now give us another twenty years of pleasure with the minimum of attention.

Azaleas came into fashion many years ago and a lot of gardens have old plants now; may I advise their owners to overhaul them? Don't wait till the wood is dead before you cut it out. If a little old wood is taken out from time to time one does not notice and the plants keep young. If it is left too long the whole bush eventually needs cutting back which leaves a nasty gap. Directly after flowering is the time to do it—it saves a lot of dead-heading!

ANNE NOBLE

Ardkinglas, Argyll.

R. ponticum as an Epiphyte

The enclosed photograph (Fig. 14) of *R. ponticum* growing as an epiphyte on the trunk of *Quercus suber* in the National Trust Gardens at Powis Castle will, I think, be of considerable interest to those gardeners interested in the unusual or unexpected position in which one occasionally finds plants thriving—sometimes almost as well as those given a carefully selected site and every attention thought necessary for their well-being.

Rhododendron growers in particular are well aware how accommodating a plant *R. ponticum* is, sometimes embarrassingly so, as it seeds freely and naturalizes in the woodland, on the hillside and by the roadside, until we could be excused for thinking of it as one of our native plants.

In spite of this prolificacy, however, it is not often in this country that one finds *R. ponticum* growing as an epiphyte to flowering size and I think it must be unique to find it as such growing on *Quercus suber*. Growing from a fissure or small pocket in the rough corky bark of *Q. suber* some 10 feet from ground level, the seed must have lodged there a number of years ago as the plant is now almost 3 feet in height and bore five trusses of flower this year.

The old seed-heads from last year's flowers are still on the plant, so obviously by this annual flowering and the healthy foliage it is deriving considerable nourishment from some source. As this plant is not growing in a fork of the tree, where one could expect to find an accumulation of decayed vegetation, but is actually growing direct from the bark on the side of the tree it leaves room for

considerable speculation as to from what source the roots are drawing sufficient food to sustain it in this most unusual position.

The bark on the south side of *Q. suber* (which incidentally is approximately 55 feet high and the trunk a good 3 feet in diameter) is very dry and hard, whereas the bark on the north side, from which the plant is growing, is much more moist. Many of the fissures or pockets on this side contain a small quantity of fine decayed bark which is sufficiently moist to germinate and nourish seedlings.

There are three such seedlings at present about 1 inch high growing in pockets 4 feet from ground level.

I think the roots of *R. ponticum* must spread over a considerable area through the corky bark of *Quercus suber* and also between it and the trunk proper to obtain nourishment for a plant of this size.

Ultimately it will be better to remove the *R. ponticum* but so far there is no sign of any damage being caused to the Cork Oak by the presence of this squatter.

GEORGE GRAHAM

Powis Castle Gardens,
Welshpool,
Montgomery, Wales.

A VISIT TO PORTUGAL

By SIR GILES LODER, Bt.

TO a camellia enthusiast landing at Lisbon the Estufa Fria, in the heart of the city, will probably be the first call. Here some thriving camellia plants can be found in this gigantic lathe house, which covers several acres and is up to 50 feet high. The lathes give the necessary degree of sun-light diffusion and dampness that many plants desire in this climate and the whole house is beautifully landscaped with lakes and exotic plants. Among the camellias there are several good plants of 'Augusto L. Gouveia Pinto', a lovely formal, pale carmine edged with white, sport of 'Mathotiana'; in fact, on one of these bushes, a branch was flowering showing the pure red 'Mathotiana'.

One must remark that we seldom saw the strictly formal 'Mathotiana' flower as we know it in this country; in Portugal the 'Mathotiana' tend to be incomplete doubles in type showing an occasional stamen, a trait we had noticed in other hot climates.

Elsewhere around the capital camellias are not in evidence until one visits Cintra, some twenty miles away. Visible from afar, built on a high ridge, the altitude provides the extra coolness and moisture that encourages camellias to thrive there. The Pena Palace, once the summer residence of the kings of Portugal, is a fairy-like castle with its turrets and battlements set on the very top of a rocky eminence. Below the Palace lies a woodland garden flanking the hillside. Part is devoted to camellias, the most outstanding being a group of several trees of *Camellia reticulata* 'Captain Rawes', covered in bloom at the time of our visit in late February. Another area of the garden is devoted to *C. japonica* growing in profusion. Many of the camellias here showed signs of having been topped in former years giving a more bush-like habit which enabled one to obtain a closer view of the blooms; one plant which had escaped this drastic treatment not only reached a tremendous height but had a spread of probably over 12 yards. About two miles away, still in the vicinity of Cintra, lies the Monserrat Park, once the home of an Englishman and now a botanical garden. Here is another large collection of *C. japonica* trees, and one must think of them as trees, not bushes, for the height is staggering to English eyes (Fig 23). One walks amongst a forest of the smooth, delicately shaded, trunks, beneath a canopy of

flowers and foliage some 20 or more feet above one's head. Many of the well-known varieties are here including 'Alba Plena', 'Lady Hume's Blush', 'Altheaefflora' and also *C. reticulata*.

Leaving Lisbon and travelling northwards only a very occasional camellia is seen, until one approaches the vicinity of Oporto, some 200 miles to the north. Here they become numerous and over many high garden walls one can see camellias leaning out over the road. A typical red *Rhododendron arboreum* hybrid is also frequently in evidence and its tree-like habit of growth made us slow up several times thinking it was a super red camellia, the two plants growing to the same size, likewise the ubiquitous orange tree, sometimes interplanted between two camellias, made us think for a moment we had found a truly yellow camellia!

We visited several nursery gardens in Oporto. This was probably the most interesting part of the trip as we were able to identify many of the varieties which we had previously seen. Besides 'Augusto L. Gouveia Pinto' already mentioned, 'Duarte Oliveira', a large formal light red was noteworthy; also 'Reine des Fleurs', a vermilion formal double; 'Albino Botti', pink-rose form; 'Donna Herzelia de Freitas Magalhaes', an exceptionally large full paeony form red to lilac with white blotches, and 'Frederici', also showing tinges of mauve. Another example of the full paeony is 'Mutabilis', which opens white with a pale pink tinge at the tips of the petals and gathers colour as the flower matures making a very attractive plant when covered with its flowers of varying hues. 'Saudade de Martins Branco', a very bright red splashed with white, semi-double, showed up well, particularly as some of the young bushes were loaded with flower. 'Helen Sharp' was an interesting new semi-double seedling, red with prominent stamens. Fimbriated blooms have their special charm and we saw several examples. The familiar 'Fimbriata Alba' describes itself; 'D. Jane Andresen', a bright rosy red flower and 'Dr. Baltazar de Melo', white with carmine markings. We also saw many of the more widely known varieties, 'Alba Plena', 'Magnoliae-flora', both the usual pink form also a pure red example; the pink, white and red 'Mathotiana', 'Contessa Lavinia Maggi', 'Kelvingtoniana' and 'Donckelarii', varying from pure red to almost white on some bushes whilst on others pure red alone. We also saw several plants of 'Jaune', the yellow camellia, unfortunately not in flower at the time of our visit but distinctive in its leathery pointed foliage and bush-like habit. *Camellia* 'Portuense' has a small red single flower typical of a japonica seedling but it is the variegated and dense foliage that renders it distinctive (Fig. 22). Due to this feature

it is often selected for clipping and training for topiary work and we noted some immense bushes of it so treated.

The *C. reticulata*, both 'Captain Rawes' and 'Robert Fortune', were in much evidence flowering profusely. The *sasanqua* species, of which several varieties are grown, were not in flower but appeared to flourish well.

In general, the stock plants were very old bushes as the girth of the stems portrayed. Propagation was chiefly by grafting in the usual way, but in several of the nurse trees we saw examples of ring grafting. For this method a branch of about two feet long is selected, ring barked and wrapt around with a cork container filled with soil. After a lapse of six to nine months the branch is severed below the container and thus provides a plant of considerable size. However, the propagation by these methods cannot be numerous but, aided by the favourable climate, is all out of doors. We have experienced the excellent wrapping and care given to the casing of such plants sent for export with most favourable results.

To the north of Oporto, in the vicinity of Braga, the roads are edged for miles with clipped cupressus having designs in topiary at intervals. It is not surprising therefore to see numerous camellias in gardens trained and clipped in similar manner, the most outstanding example being at the Palace of Biscainhas on the outskirts of Braga, where two huge camellia "Houses" have been made by six to eight camellia trees planted in a circle of about 6 yards diameter which have grown together and upwards to make a gigantic, almost circular, ball close-clipped all over; quite a 100 feet in circumference and 30 feet tall; there are regular archways in the walls through which one can walk to the centre where a fountain plays (Fig. 25). We talked to the gardener who told us he was responsible for clipping them every June after the flowering season, no mean feat.

A short detour, thence up to Bom Jesus, took us past an enormous tree of *C. reticulata* growing alongside the road in full flower and unclipped, amongst other *japonica* varieties all trained into grotesque forms, the variegated 'Portuense' being much in evidence.

Returning further inland we called at the old palace at Bucaco, now turned into an hotel. The approach is made by a long winding drive up the steep hill-side planted with many tree ferns, eucalyptus, cupressus and other interesting conifers. Upon reaching the hotel one finds a planting of camellias nearby. Amongst them, a pale, almost blush-pink formal double was especially noteworthy; of course, upon enquiring the name, we were told *C. japonica*, the usual answer given in the country where there appears to be little interest

in varietal names. Similarly, in a small botanical garden above Luso, were several good varieties without names, doubtless raised from seedlings or sports of a century ago.

It is encouraging to note in Portugal the popularity that the camellia has maintained through the past century, and not only is there an abundance of handsome old trees well cared for but many of the newer houses have camellia plants in their gardens.

CAERHAYS CAMELLIAS AND SHRUBS

By JULIAN WILLIAMS

THE history as well as the identification of the shrubs in the Caerhays gardens has baffled many of the stout-hearted and it is with diffidence that I take up my pen to write a few words on this complicated subject. A complete ignoramus as to plants, when I came here nearly four years ago, I must confess that I am still a novice and feel like a doleful satyr lost in the jungle of botanical terms and jargon. In advance let me say that any theories that I may have and which I propound hereafter, generally remain to be proved.

My grandfather, J. C. WILLIAMS, from the 1890s to 1939 succeeded in building up a large collection of plants here. As well as being a fine practical gardener, he was for many years absorbed in noting down the identities of his plants and their reactions to this Cornish climate. From 1910 to 1930 he used to spend 2-3 hours each evening at work on his gardening records. A great mass of his notes, some in notebooks, some on scraps of paper tucked away in gardening books, and some on hard white boards, are still scattered on the shelves of this room as I write. They cover a wide range from daffodils and rhododendrons to the genera of *Enkianthus*, *Acer* and oaks as well as many others. About 1930 he had succeeded in uniting his findings on shrubs into one book. It was then that disaster struck. One night as he was travelling from Cornwall to London, an attaché-case which contained £50 and these precious notes was stolen from his sleeper. In this way the work of a lifetime was lost.

My uncle, the late RT. HON. CHARLES WILLIAMS, who took on here in 1939, found that his primary job was to save as many plants as possible from extinction, with a very depleted war-time staff. This he was able to do with the help of his stalwart helpers, CHARLES MICHAEL, GEORGE BLANDFORD and after the war the late REGGIE UGLOW. All the time that CHARLES WILLIAMS lived at Caerhays, he was a Member of Parliament, and in addition during the war he was deputy chairman of Ways and Means, which meant a heavy extra strain and required much time in London. In consequence most of his garden work took place at weekends. The saving of this garden from obliteration by weeds and neglect was his great achievement. Today, with a young and keen staff aided by two motor scythes, we find the struggle a difficult one. In the war, all cutting was done by hand, a large number of daffodils were maintained, three of the

gardeners were well on into their fifties and one was a far from fit man. It is truly remarkable that this Garden survived at all.

I never had the good fortune to know my grandfather well. He died, when I was twelve years old. I think, however, that my Uncle CHARLES, who tried to teach me as much as my brain would take, was a first-class judge of quality in flowers. The camellias that he named and exhibited were and are of high standard. It is a pity that he had so little time to do much in the way of hybridizing on his own account. One of his legacies, however, which was made by CHARLES MICHAEL and himself, is a cross of *Rhododendron burmanicum* \times *R. dalhousiae*, which, though soft, is most remarkable in the variety and quality of its seedlings. The best is a large trumpeted very delicate lemon yellow. Only one flower has so far left the garden and after a five-mile car journey it had begun to wilt, so that getting it to a show may be an almost impossible task.

The loss of J. C. WILLIAMS' notes has had some rather trying results. Skeleton and cryptic jottings litter the house. The gathering of them together is proving to be a formidable task. Secondly, when the plants collected by the late GEORGE FORREST, were put out in the garden they were given proud and legible labels. Alas their legibility remains, but they have proved to be far too mobile over the years. In one of our small nurseries alone, the wire fence which surrounds it is decorated with nearly one hundred of these labels, which gaze back at the visitor with unblinking reproach. So many plants have lost their labels that it is difficult to trace their identity and history. The fact remains that many of the plants collected by E. H. WILSON between 1900 and 1910 and which came here from Veitch's Nurseries are today better numbered and labelled than those that came later from FORREST. WILSON's plants came in manageable proportions, those of FORREST came in a tremendous and sustained flood.

I often feel that visitors who come around this garden, feel that there are a lot of mediocre and second-rate plants still at large and that they should be removed. This is a valid criticism. My head gardener, PHILIP TREGUNNA and myself are afraid that by drastic and hasty action we may eliminate a plant that is unique in the country, however plain that plant may be. Only when we are sure that one of these plants is both plain and common do we take action. There is a legend in this garden that my uncle, exasperated by a plain and unidentified tree that had grown to generous proportion in a nursery where it had no business to have been left, settled down one afternoon to ring bark it. Fortunately, MR. HILLIER came around

the corner and seeing an execution about to take place rushed up with the verbal reprieve that it was a unique *Meliosma*. The tree still stands prouder and plainer than ever.

Secondly, plants cannot be removed without full attention being paid to the danger of a large gap letting in a blistering funnel of wind. Then there is the danger of harming the plants' neighbours. This is particularly true in the case of neighbouring magnolias which have a widespread area of surface roots, which one damages at one's peril. Finally, it takes time to grow the plants to fit the gaps one proposed to make.

Probably the most famous plants to have come out of this garden are the camellia crosses of the species *C. japonica* and *C. saluenensis* now known under the collective category of *williamsii* hybrids. I have spent many hours trying to trace the original plant of the *Camellia saluenensis* that was the first of the parents of these hybrids. Crawling around on hands and knees looking for labels had elicited little definite information.

The Caerhays Garden Diary is also not very helpful, due to the fact that until the new camellia species *C. saluenensis* was so named in the late thirties, it had other names in our garden book, such as *speciosa*, *cuspidata*, and even *reticulata*. I rather think, however, that *saluenensis* first flowered here in 1921. The first recorded cross was No. 181 made in 1923 and sown in 1924. The entry runs *Camellia speciosa* (aff *speciosa*) × White *japonica*. On the face of it this would sound as if the result might have been the camellia now called 'J. C. Williams', which was the first *williamsii* hybrid, and which the retired head gardener, CHARLES MICHAEL, thinks was made in the 1920s. The seedlings were grown, he tells me, on a north wall of this house and then moved into the wood. It is here that the original plant of 'J. C. Williams' still flourishes, and CHARLES MICHAEL tells me that the original parent is the old *saluenensis* plant by the gun-room.

It is at this stage that the confusion arises. First, there are still two old *saluenensis* plants by the gun-room. Secondly, in PROFESSOR HUME's *Camellias, Kinds and Cultures*, page 124, the Forrest number of the *saluenensis* parent of 'J. C. Williams', and of 'Mary Christian', is given as being G.F.24090. This seed was collected by FORREST in April, 1924—three years after *speciosa* flowered here for the first time, and one year after the first *williamsii* hybridization took place. Popular belief here is that the oldest *saluenensis* plants were put outside the gun-room, where they still survive in a fairly healthy and free-flowering state, but a clue to their age is given by the fact

that their new growth becomes shorter every year. These old plants may well have come here under Forrest No. 15511 (found August 1917) or 17686, or even earlier. This is merely a matter of deduction, and no absolute proof exists. Forrest No. 24090 were put out into the wood (the approximate place is given, but the numbers have disappeared). There are the following entries in J. C. WILLIAM's hand by this Forrest number in our records.

"Fowers twice as big as the leaf. Different to ours?"

"Flowers Pink and well made shrub."

The plant in the wood has, I think, bigger flowers than those on the gun-room plants, but this will have to be checked again next spring, as the camellias had ceased to flower long before I started this article. Finally, I have not seen the plant in the wood yet set seed, but the gun-room plants do.

I apologize for this essay into plant detection. There are plenty of bodies, but no real clues to identification. The fact remains that the old original *williamsii* named hybrids thrive and prosper. Those to whom names had been given at the time of the RT. HON. CHARLES WILLIAMS's death are: 'J. C. Williams', 'Mary Christian', 'St. Ewe', 'November Pink', 'Charles Michael'.

In this hybridization, I think that after the initial success of the cross, it was done again quite extensively. The 'J. C. Williams' group were probably the first, and after a spell on the wall, were put out into the wood. I think that the later crosses were put out in clumps around the wood, and the best plant was named in each clump. There seems to have been confusion over these hybrids, as so many of the flowers that I have seen elsewhere seem different from the parent plant. For example, the beautiful coloured plate of 'J. C. Williams' in MRS. URQHART's *The Camellia* is a shade or two darker than the 'J. C. Williams' plants as they grow here.

This difficulty may have arisen from one of three causes. First, until the position of the *williamsii* Hybrids were established, it is possible that people thought that any *saluenensis-japonica* cross was automatically 'J. C. Williams'. Secondly there may have been muddle here over the distribution of cuttings. Thirdly the soil of gardens other than Caerhays may have affected the colour of the plants. The fact remains, however, that the small 'J. C. Williams' plants raised from cuttings, and flowering around the woods, are similar to the parent plant, both in flower and in habit. The parent plant of 'J. C. Williams' is now over 15 feet and its lovely pale flowers are the pride of the collection.

This year I have tried to cross a pale *C. saluenensis* with *C. japonica* 'Devonia' in order to see whether the result will be anywhere near the original plant of 'J. C. Williams'.

'Mary Christian', with its darker flower, is the biggest plant of the named *williamsii* hybrids. It is now a good 20 feet tall and is causing a good deal of trouble to its neighbours.

For the best value and longest flowering period, I think that the prize must, however, go to 'November Pink'. Planted in a sheltered quarry, it is protected on the one side by a laurel hedge, and the other by the hillside. Two years out of three it first flowers in October and carries on intermittently until April. Small plants from cuttings have been tried in other parts of the wood where they are a little later but generally show flower in November. I think that in other gardens without the benefit of our climate and rainfall it would flower later than November. It certainly deserves its name here.

'St. Ewe' is another magnificent plant. I think that it may like the sun less than the other *williamsii* hybrids. The parent plant is the best of a very good group of hybrids, and only, I think, won the honour of being named by a very small margin. Each camellia in this group is markedly different from its neighbour.

Camellia williamsii 'Charles Michael' is the last of those named up to 1955 to flower. A pale flower, it does not open out so wide as 'J. C. Williams', but is very effective in its own right.

This year I have named four more *williamsii* hybrids, (two of crosses between *C. japonica* 'Lady Clare' and *saluenensis*) and two ordinary singles. This is really for our garden convenience here, and not to add further difficulties to a problem already sufficiently vexed. Of these newly named hybrids, the one most generally noticed by visitors is one of the *saluenensis* and 'Lady Clare' crosses known as 'Caerhays'—a pale purple semi-double. I hope in February next, to bring up flowering specimens from the hybrids I have described, to a fortnightly R.H.S. Show, in order to help clarify any confusion that may exist.

One last word on *Camellia saluenensis*. It is a most varied and free-flowering species with colours ranging from pale to dark pink. It is hardy here, and frost may cause havoc with some buds, but it very rarely refuses to give a show.

I intend to plant a lot more of them in this garden, close together to serve as windbreaks. The plants here do not mind being cut back when they get out of control, so that they seem to be suitable in this respect for a garden of any size. I do feel that gardeners should

experiment more with *Camellia saluenensis* and I hope to send some seed to Wisley in the autumn for the use of members of the R.H.S. who would like to try them. This is an experiment and many of the forms grown from seed may not be very good, but my aim would be to encourage people to try to grow camellias who have not tried before. If success meets the efforts of those growing these camellias, then they should widen their range and regard the present seed as experiments.

The second new camellia species introduced by GEORGE FORREST to this garden was *Camellia reticulata* wild form. They came under Forrest Nos. 25352, 27393 and 27165. In the last two cases I have numbers attached to plants, but the label for 25352 has disappeared. In each case in FORREST'S field notes, which have been heavily annotated in J. C. WILLIAMS'S writing, these plants were thought to be *Camellia speciosa*. (There is a note to say that in 1928, Edinburgh Botanic Garden agreed that 27393 was so.) Here again, confusion raged for a few years around the new plants. Fortunately, the perplexity of horticulturists has had no effect on the stamina of the plants. Some of the original plants are well over 20 feet tall and their flowers vary from pale pink to dark pink.

The best *reticulata* with the biggest flowers is *Camellia reticulata* 'Mary Williams' (A.M. 1948). It is the earliest of the *reticulata* seedlings to flower, and therefore prone to be more vulnerable to frost. The old plant has had its misfortunes—a few years ago a tree fell on it and knocked it almost to the ground. It has recovered from this setback, due to some fine care by CHARLES MICHAEL, and is now in the best of health. We have raised cuttings successfully from this plant, and we are raising seedlings from it to see how true they come to the parent plant.

As for hybridization between these *reticulatas* and *Camellia japonica* or *saluenensis*, I am told by my botanically minded friends that it will be impossible, since the chromosomes make such a marriage immediately incompatible. There is, however, a group of such seedlings in the wood growing proudly under the label of *reticulata* \times *C. japonica* 'Adolphe Audusson'. These plants, now over 2 feet tall, show that the botanists may well be correct, as the leaves look more and more like *reticulatas* as the years go on. The labels will, however, remain as an act of defiance until they have shown by their flowering that the botanists are correct.

Whereas the *japonicas* here thrive on shade and do very well under beech trees, the *reticulatas* appear to like only partial shade. The

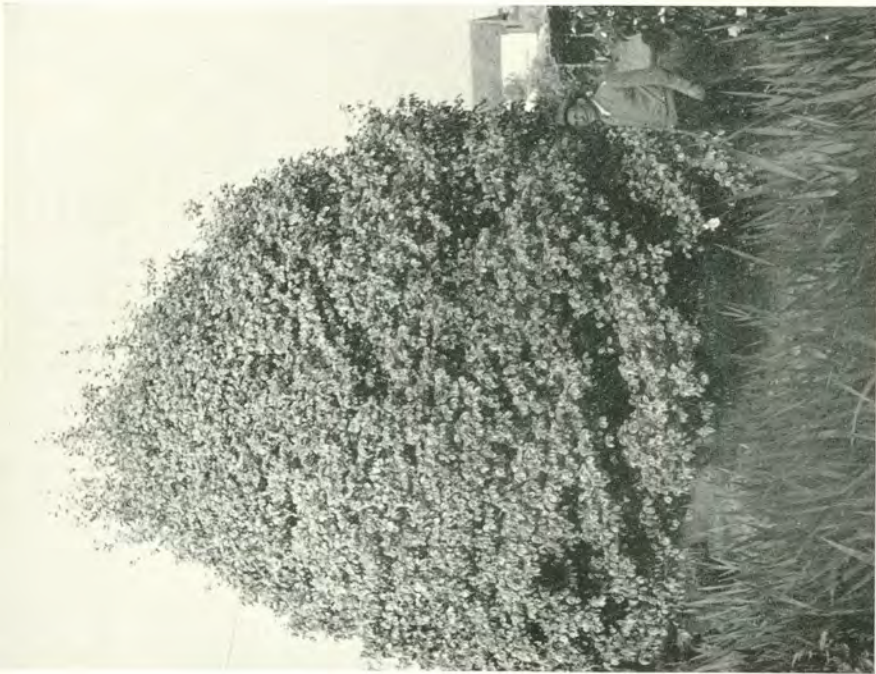


FIG. 22—Camellia 'Portuense'. A variety with variegated foliage and small red single flowers (see p. 104)



A VISIT TO PORTUGAL

FIG. 23—Stems of the giant camellia tree at Monserrat Gardens (see p. 103)



FIG. 24—Clipped Camellia trees at Braga



FIG. 25—Clipped Camellia "house" at the Palace of Biscainhas, near Braga
(see p. 105)

east wind, however, seems to be their worst enemy, and we often have long periods of it in the early part of the year.

I now turn from camellias, in order to give news of the magnolias here.

The Garden gave a superb display this year—well deserved, after the false hopes of last year. One of our plants of *M. sargentiana robusta*, flowering for the first time, and planted out fourteen years ago, produced enormous flowers, one of which measured nearly 14 inches across. Its neighbour, another *robusta*, planted at the same time, flowered for the first time two years ago, but its flowers were very much smaller.

The seedlings from our best pink magnolia, *M. sprengeri diva*, have long been known to be variable, and not nearly so good as their parent. I noticed this year that the flowers of the seedlings appear to change from year to year. One of the worst, and biggest of these seedlings, which is only allowed to remain standing as it serves as a wind break, this year, instead of producing pale and anaemic flowers, produced flowers two shades darker than the *sprengeri diva*. The flower form looked as poor as ever, but the change in colour was remarkable.

We have seven or eight *diva* seedlings now of flowering size, and most of them are markedly inferior to the parent. I found one, however, this year, whose flowers were almost indistinguishable from the parent, but I take a jaundiced view of this plant's future as it has been planted very close to a bog, so I fear that it will not live to enjoy luxuriant longevity. Here again it has not been proved yet whether this plant is consistent in the quality of its flowers year after year.

For those readers who used to come around the Garden regularly in years gone by, but have not managed to do so recently, here are one or two random items. *Rhododendron souliei* and *R. lacteum* continue to dislike growing at Caerhays, though one or two *souliei* hybrids hang on in a tired way.

The plants of *Emmenopterys henryi* grow in stature but show no sign of wishing to flower. Should such an event occur, which seems unlikely, it may well cost me a fortune in telegrams. Actually they may never have a fair chance, as despite much bough cuttings of neighbouring oaks by the gardeners, the *Emmenopterys* are still deprived, I think, of enough light.

The finest evergreen oak in the garden is still *Quercus cleistocarpa*.

CHARLES MICHAEL and GEORGE BLANDFORD have now retired, but are in good heart and health, and have been most helpful to me.

In conclusion I would thank my Cornish neighbours, especially MAJOR G. H. JOHNSTONE of Trewithen for their help and advice. The Botanic Gardens of Kew and Edinburgh have been most helpful in furthering out problems in detection. In a very puzzling garden such as Caerhays it is some solace to find that other people are often as perplexed as I am. The real joy is, however, that it will take more than a lifetime to clear up even half the plant mysteries here.

CAMELLIAS AT UNDERWAY, WEST PORLOCK

By NORMAN HADDEN

WHEN I began planting shrubs forty years ago I did not venture on camellias for some time. The only ones I saw in the district were double-white varieties facing south on the wall of a house whose blooms seemed to be frosted nearly every year, and they really did not seem worth the space occupied. However, I included a *C. sasanqua* in an order for shrubs from Yokohama in my early days and received a healthy little plant which was labelled *C. sasanqua* 'Fukuzutsumi', and eventually charmed me with its large, single, white flowers in November and December, pleasantly scented and a good laster when picked. This plant met with a fatal accident but I still have its descendants which are the joy of the garden in early winter. Like all the *sasanqua* varieties I am sure it enjoys more sun than the *C. japonica* varieties, otherwise the young wood does not ripen well enough to produce flower buds.

Very like 'Fukuzutsumi', but a fortnight later, comes *C. sasanqua* 'Narumi-gata', often grown as "*fragrans*"; this was distributed as *C. oleifera* at one time, but that is quite a distinct species still rarely seen in cultivation. I grow *C. sasanqua* 'Narumi-gata' in my woodland garden, on a steep bank, where it has made a loose bush some 10 feet high but was severely damaged by heavy snow some years ago. It flowers freely nearly every November.

All the varieties of *C. × williamsii* are noted for the abundance of their blossoms, but I think that known as 'First Flush' is the most prodigal of all. The pale silver-pink flowers begin to open early in the New Year but they are unfortunately not able to stand up to bad weather as well as many forms: if picked before opening they open out well indoors.

The first of the *japonica* varieties to flower here is 'Gloire de Nantes', sometimes out by Christmas; it is a lovely semi-double rich pink, a very old variety but still one of the best. It is closely followed by 'Nobilissima', a typical old-fashioned double of pure white, an ideal buttonhole flower. No double white camellia stands up well to rough weather, but given a sheltered position 'Nobilissima' will provide us with a generous crop of lovely flowers which last well indoors.

'Hirathlyn' is a good *williamsii* variety, raised at Bodnant. It opens a lovely silver-pink fading to a pale blush; it is a good grower and slightly earlier than 'J.C. Williams'.

The Japanese variety 'Wabisuke' is one of the very best single camellias I know; my original importation is now over 15 feet high and 10 feet across. The foliage is a rich deep glossy green, distinct from all others. The flowers are pink, a shade deeper than 'J. C. Williams' and of good substance. (Fig. 33)

Tallest and most tree-like of my camellias is 'Kelvingtoniana', very striking with its wide glossy leaves and huge crimson-pink blooms, which are very similar to 'Adolphe Audusson'. Here it is a much better plant than 'Arejishi', which is so shy flowering.

The *williamsii* variety 'Donation' is a magnificent garden shrub, forming a well-shaped bush in a few years and literally smothered with the most lovely paeony-shaped pink flowers (Fig 34). Growing alongside it is the wild form of *C. reticulata* (Fig 35), which is definitely hardier than the older semi-double 'Captain Rawes' which grows well here against a high fence facing north.

'Cornish Snow' is a dainty little *saluenensis* hybrid with *C. cuspidata*, not always easy to establish, and I lost my first plant by allowing it to flower too freely when still very small.

'Salutation' is another hybrid possibly of the *williamsii* group, a much paler pink than 'Donation' but very attractive. It flowers here early in April and probably does not require the very sheltered position it has been given. Its near neighbour is *C. reticulata*, the old double-form 'Captain Rawes'; it flowers freely every year and is certainly still one of the most lovely of camellias.

A large plant of the single red 'Taroan' carries on the flowering season from mid-April for some weeks; its leaves are very glossy and more elongated than in most *japonica* varieties.

Even later in flowering comes an old Italian variety, 'Margarita Coleoni', often in bloom throughout May, a rich pink double.

Of single white *japonica* varieties, 'Devonia' is very pleasing and stands up pretty well to bad weather. It is very similar to 'Alba Simplex'.

The semi-double or paeony-flowered 'Shiro-botan' is a great favourite here, being very free-flowering and lasting well. Heavy snow broke my big plant badly but it has recovered and some branches have layered themselves.

The white form of 'Magnoliaeflora' is another good one, though I personally prefer the pale flesh-pink one usually seen.

Starting early in November we have had camellias in flower in the open right up to the end of May, a record excelled only by *Rhododendron* and *Erica*.

CAMELLIAS IN NEW ZEALAND

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

THE indigenous forest and flora of the Dominion of New Zealand is almost entirely evergreen in character and, while there are wide differences of climate over the 1,000 miles length of the North and South Islands, extending from latitude 34° to 47° S., most of the area is suitable for the growth of camellias. Much of the centre of both Islands is mountainous and development is substantially centred on coastal plains, river valleys and other areas of fertile land. Extensive farming with sheep and cattle is carried on over much of the hilly country and extends, with very low stocking rates, into the tussock lands of the mountain regions. Even in these sparsely populated areas the homesteads have almost always substantial plantings of familiar trees and shrubs and, among them, camellias, magnolias and rhododendrons frequently appear.

Locally, climate is much affected by nearness to the sea, proximity of forest clad hills, prevailing wind direction and altitude, and there can be quite large variations in rainfall and minimum and maximum temperatures, over quite short distances. In general, the west coast is wetter than the east and, as would be expected, winters are more severe in the South Island. Auckland has an average annual rainfall of 49 inches with mean daily maximum temperatures of 72° F. in January (the summer) and 57° F. in July. The mean daily minimums for the same period are 60° and 46° F. respectively. New Plymouth, on the west coast of the North Island, has 61 inches of rain and mean daily maximum temperatures of 69° and 55° F., with mean daily minimums at 55° and 43° F. There are many places where rainfalls exceed 100 inches, with Blenheim (26 inches) and Timaru (23 inches) at the other end of the scale. In spite of the apparently heavy rainfall and consequent high humidity, the places mentioned have an annual average of hours of bright sunshine varying from 2,000 to 2,500. British readers may be interested to compare these weather figures with those obtaining in their own localities.

That the camellia can and does adjust itself to widely different climatic conditions is nowhere better illustrated than in New Zealand. In the almost frost-free North, in favoured spots entirely frost free, *C. sasanqua* makes wonderful autumn displays of colour and *C. japonica* flowers freely throughout the winter months. Further south the *sasanqua* varieties still make excellent showing until

checked by frosts, and *japonica* varieties, while producing some blooms throughout the winter, make their main display in the early spring months of August and September. At any time in the winter a few mild days bring a crop of flowers. Sometimes they are spoiled by frost but there is always another lot of buds waiting for the least encouragement to open. A plant of 'Lady Clare', some 10 feet high and 12 feet across, almost hidden by a great mass of lovely flowers, shining in the bright New Zealand winter sunshine, is really something to remember. That many *C. japonica* will flower like this for us, accounts for the general lack of enthusiasm here for some of the English hybrids, such as 'J. C. Williams'. The competition is a bit keen when other camellias are just as floriferous and have infinitely more attractive colours and flower forms. It takes something as good as 'Donation' to stand the comparison. The few well-established examples of 'Donation' are attracting considerable attention and plants are in keen demand. One nursery alone reports that it is planting out over 700 of them this spring.

I reported in the 1958 *Year Book* that the newly formed South Auckland Camellia Society would be paying attention to some of the old plantings of camellias. The Society made such rapid growth that its local character was quickly lost and it is now the New Zealand Camellia Society Incorporated, with official responsibility for the genus and, at the time of writing, some 600 members. The investigation of old plantings is under way but it is a lengthy business requiring a good deal of careful, painstaking research. There are few, if any, records available and patient enquiry is needed to elucidate information from the descendants of early settlers. In rapidly developing city areas, such as Auckland or Wellington, land has become very valuable and many fine gardens planted in the latter half of the nineteenth century have already become victims of subdivision, with grand trees and plants falling before the bulldozer to make room for more houses. Here and there some of the original plants have survived and are being cherished by their new owners but their history is difficult to determine.

In the Wanganui area some very fine work has been done by MR. ROLAND YOUNG, assisted by MR. NOEL GINN, who is writing up the results of their joint research. His report on two very early plantings is of great interest and I am grateful for his kind permission to include it here. "In 1852 the WILLIAMSON family of Warwickshire set out for New Zealand to begin a new life in the Wanganui district at a place which was to be called Long Acre. They were ardent plant lovers and landscape gardeners, so in the

days when the emigrant took everything needful for setting up home in an untamed land, they took some of the plants they loved. These were carefully tended on the long sea voyage and transhipped at the Port of Wanganui to canoes which were paddled up river seven miles, then transported another three miles through swampy bush to the site of their new home. Among the plants they took were periwinkle and daffodils, elms, Lombardy poplars, photinia, *Magnolia grandiflora* and one camellia. They had in mind the creation of an English woodland. Later, a relative who had settled in Queensland, sent over a popular tree of the day, the bunya bunya (*Araucaria bidwillii*) and, of course, a eucalyptus. Most of these trees are alive today in an area fenced off for sentimental reasons. The periwinkle completely covers the ground, while most of the trees are lofty and venerable.

"It was with special interest that we made our way to the camellia. Even under the large deciduous trees it seemed big. It was a well proportioned, fairly open tree of *C. japonica* 'Aspasia Macarthur', bearing a heavy crop of blooms in the stately manner that only large camellias have. But what was more incredible than its age or size, was the fact that it was growing 3 feet away from the trunk of a gigantic London Plane. The camellia was 26 feet high with a 20-foot spread. Circumference one foot from the ground was 39 inches. In spite of its age it was thriving and healthy (Fig 26). We stood before this 106-year-old tree almost with awe, trying to imagine all those years of slow, silent growth and leaf fall. We wondered about the fate of our plants of 'Lookaway' and 'Donation' over the 106 years ahead!

"Though at this stage the Williamson 'Aspasia' seems to be the oldest authenticated tree in the district, there are others almost as old, about 8 miles up the Makirikiri Valley. This valley meets the Wanganui River 11 miles upstream. As yet, neither the name of the original European owner nor the date of settlement has been determined but it would appear as though the year was about 1870. Here, too, the original homestead has disappeared. It had been sited on a hill-top, hard of access. Defence was undoubtedly a factor in the choice of such a rugged eminence, for the up-river Maoris were still hostile. The place had an air of ruination, of forever belonging to the past. All the cherished trees which accompany old homesteads were there, but not a vestige of the dwelling. Right out in the open stood four large camellias in bloom, the trunks clear of branches up to grazing height. Nearby was an immense, shattered laurel, *Prunus laurocerasus*, its sprawl covering every bit of a quarter of an acre.

The largest camellia was *C. japonica* 'Alba Plena', 33 feet high with a trunk circumference of 41 inches. This was flanked by two smaller trees, 'Anemonaeflora', about 22 feet, and 'Helenor', 24 feet. Opposite these three was another large white camellia, a variety unknown to us. This was as large as the 'Alba Plena' but not so tall, having at some stage been topped. The flowers were double white, some with a single fleck of pink. The centre was a star formation, pale cream, while the outer petals were waved. It was an extremely attractive, late camellia just coming into flower, and that was the third week in September. A month later a similar flower was encountered on a tree at Eastwoodhill, Gisborne, bearing on the lead tag the name, 'Nike nika'. All these four camellias on open grassland were healthy. It is quite a nostalgic exercise picturing these gardens at the time of their planting. The Long Acre access track was built over swamp through a white pine stand (*Podocarpus dacrydioides*), while that at Makirikiri was longer and wilder, leading through a hilly wilderness. But at the end of both tracks were the camellias, symbolizing an order of nature and beauty with which man had already come to terms. Such symbols in an alien land and in uncertain times were of immeasurable value as a link with the past and a pledge of the future. There were many plantings made in circumstances similar to those so ably described by MR. NOEL GINN and we hope to have them recorded as the research progresses.

The camellia, now the subject of such a widespread revival of interest in New Zealand, has not been without its faithful devotees throughout the years and some important collections exist in various parts of the country. That of MRS. A. F. HINDMARSH, of Hick's Bay, is worthy of special mention. For the last thirty years she has been assiduously collecting all the available varieties and growing them in the garden of a remote sheep and cattle station, on the east coast of the North Island. With a rainfall of 120 inches, *C. japonica* has flourished in a remarkable manner and produces enormous crops of flowers. Many of them are growing as isolated shrubs in the lawns and here can be seen many of the famous names among older camellias, all looking healthy and vigorous—'Lady Hume's Blush', 'Anemonaeflora', 'Arejishi', 'Fimbriata', 'Lady St. Clair' and many others, all in great size and flowering freely. Many Australian camellias and all the available new Americans are represented. The really keen camellia grower usually starts propagating by grafting and other means and MRS. HINDMARSH is an able exponent of these arts. At Hick's Bay, cuttings which are large enough to include wood several years old, root freely when placed in a sandy



Photo, Clive Edney

CAMELLIAS IN NEW ZEALAND

FIG. 26—An old tree of *C. japonica* 'Aspasia McArthur' planted in 1852 at Longacre, near Wanganui (see p. 119)



Photo, Col. T. Durrant

FIG. 27—*C. sasanqua* 'Showa-no-Jakae'

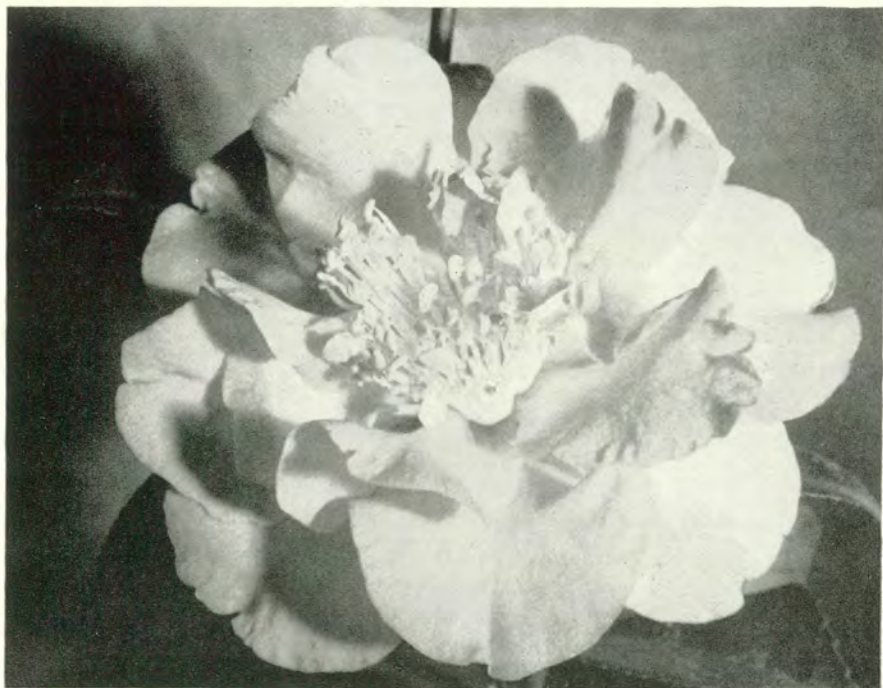
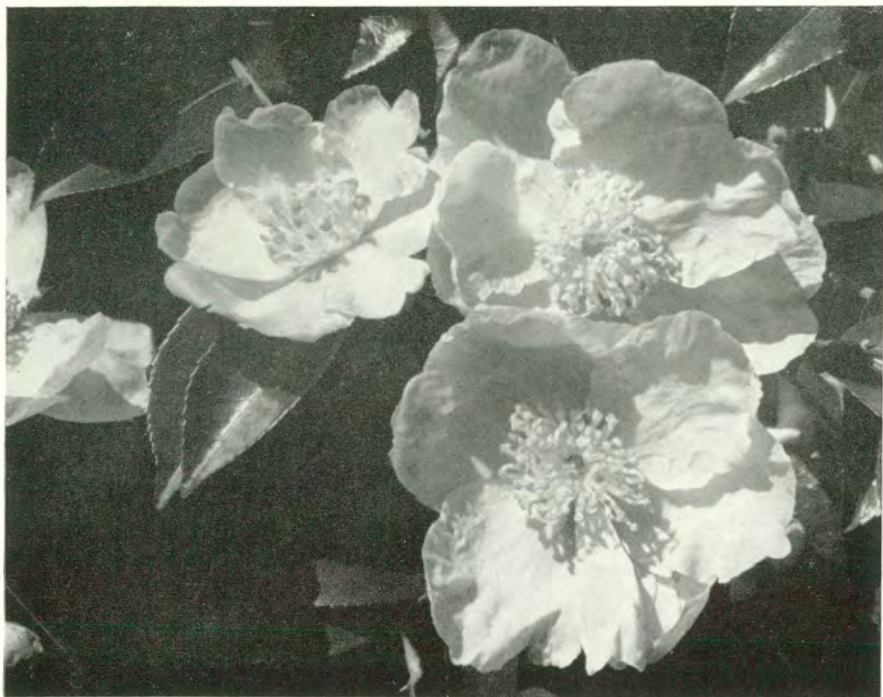


FIG. 28—*Camellia japonica* 'Vosper's Rose'. A new seedling raised by MRS. J. VOSPER, of Tarau, New Zealand (see p. 123)



Photos, Col. T. Durrant

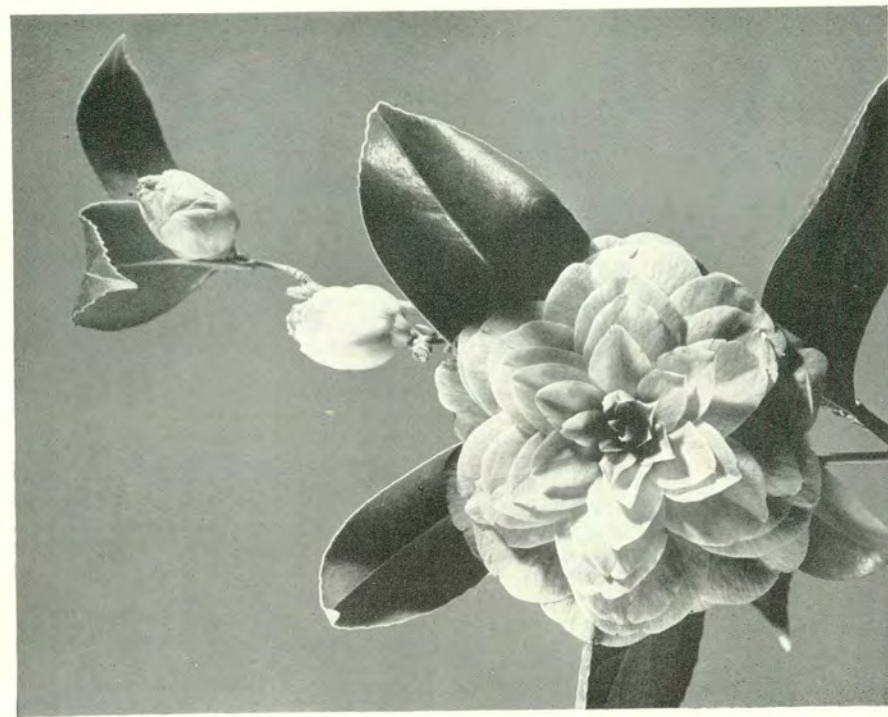
FIG. 29—*Camellia sasanqua* 'Plantation Pink'



Photo, G. Hampfler, Longwood Gardens

CAMELLIAS AT LONGWOOD GARDENS, U.S.A.

FIG. 30—The main planting of *C. japonica* in a greenhouse



Photo, G. Hamptler, Longwood Gardens

FIG. 31—*Camellia japonica* 'Maria Morren', a formal double-tiered variety

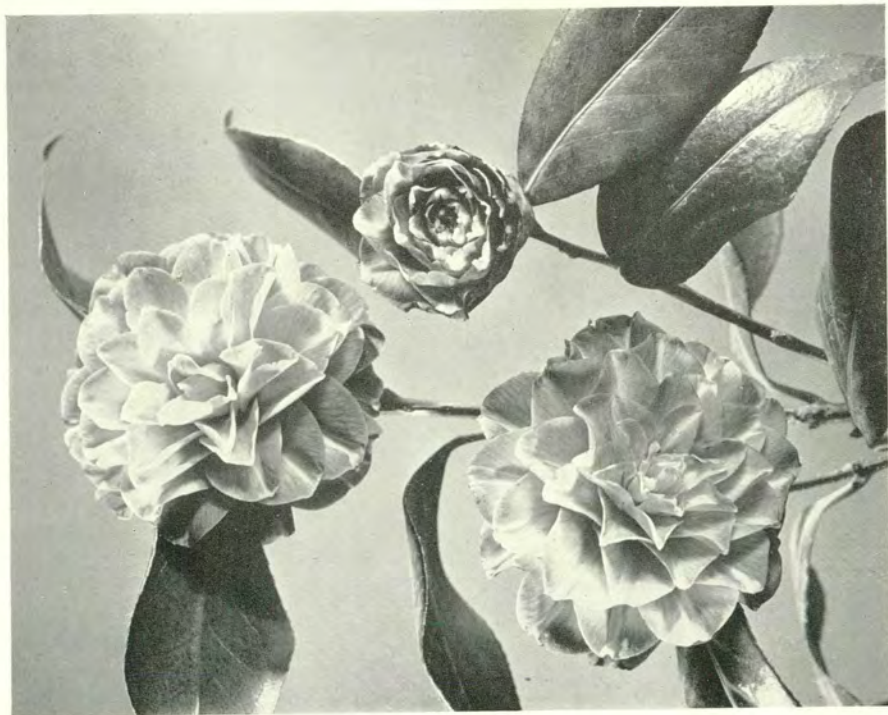


FIG. 32—*Camellia japonica* 'Aranin', an imbricated double (see p. 126)

mixture in the open ground, with no protection other than a little shade from nearby trees. Magnolias and rhododendrons are also featured in this garden and a huge *Magnolia campbellii*, displaying literally thousands of blooms, is quite breath-taking in its loveliness. This garden demonstrates that camellias just love ample moisture, provided the drainage is perfect. British gardeners could be forgiven for imagining that, with precipitation at 120 inches, it is always raining at Hick's Bay. Nothing could be further from the truth and much brilliant sunshine is enjoyed. When it rains, however, there is no doubt about it and falls of several inches in a day are not uncommon.

In a much drier east coast area, at Eastwoodhill, near Gisborne, MR. W. DOUGLAS COOK has assembled a vast collection of exotic trees and shrubs and, among them, several hundred varieties and species of camellias. Unfortunately, I have not yet had an opportunity to see this collection and it is hoped that MR. COOK will be able to tell this story himself.

On the west coast of the North Island, a notable garden featuring many camellias, magnolias and rhododendrons is that of MR. J. E. EDMONSTON, of Hawera. It includes the magnificent 'Lady Clare' referred to earlier in this article, finely grown plants of 'Arejishi', 'The Czar', 'Gauntletti', 'Magnoliaeflora', 'Donation', *C. reticulata* 'Captain Rawes' and, coming along, 'Débutante' and many of the new American varieties. Hedges are made with *C. sasanqua* and MR. EDMONSTON has unusual views about shelter. He says: "I have read various suggestions as to sheltering camellias, and while I agree that some camellias may benefit from shelter, in this garden *they* are the shelter, and in due course I plan to replace all other forms of shelter with camellias." Flowering cherries and magnolias, in combination with camellias, make an unforgettable sight in the spring and flourishing plants of *Magnolia campbellii*, *M. sargentiana* var. *robusta*, *M. denudata*, *M. × veitchii*, *M. stellata*, *M. soulangiana* 'Lennei', and many others, add distinction to the display. In South Taranaki there are many old plantings and MR. EDMONSTON reports about one of them: "Many of such camellias as were then available were planted at Mokoia about 1880 by the late MISS LYSAGHT, around her homestead which is now owned by MR. FRASER. In a plantation, which includes huge specimens of *Liriodendron tulipifera* and *Cedrus atlantica*, are to be found a number of camellias of a height above 30 feet. The plantation is forest-like and the camellias match the trees with their massive trunks and tree-like form. The lowest blooms are 8 feet above ground level and the owner uses a

long shafted tree pruner for cutting the flowers. The collection includes 'Helenor', 'Anemonaeflora', 'Lady Loch' and, of course, 'Aspasia Macarthur'. There are others I hope to identify this season.

MR. S. R. FAIRBROTHER, Headmaster of one of the schools at New Plymouth, is another of the Taranaki enthusiasts early to recognize the attractions of the genus *Camellia*. His most unusual garden, made on a very steep slope running down to a river, contains an important collection of newer camellias amounting to 150 varieties and including some magnificent plants of 'Donation', 'Salutation', 'Débutante', 'Flame', 'High Hat', 'J. C. Williams', 'Diddy Mealing' (which has produced a pink sport), 'White Hibiscus', 'Berenice Boddy', 'Alba Queen', 'Yuki-botan' and 'Hiraethlyn'. 'Donation', which is over 8 feet high, produces a display which is quite startling for number, size and quality of flowers. With an annual rainfall of 60 inches and perfect drainage, all the camellias—be they *japonica*, *sasanqua*, *reticulata*, species or hybrids—flower here profusely. A splendid plant of *Michelia doltsopa*, in flower with the camellias, adds its beautiful blooms and scent to the display.

At New Plymouth is also the collection of MR. L. E. JURY, who combines extensive and patient work in hybridizing with running a specialist nursery. At Waitara, not far distant, another enthusiast is his brother, MR. FELIX JURY, who, in the garden of his farm homestead, has most of the new varieties which have become available in recent years.

Camellias now mean very big business to New Zealand nurserymen. Many tens of thousands of them are being planted each year; several nurseries are now specializing in their propagation and, as flowers of the new kinds are seen in shows and gardens, the demand increases and the interest spreads. It would be wearisome to list the great numbers of cultivars which are arriving as alert private collectors and nurserymen keep in touch with what is going on in the rest of the world. Sufficient be it to say that anything worth while finds its way to New Zealand just as quickly as the necessary licences and exchange funds are available. Due largely to the excellent camellia literature produced in the United States and, of course, to the generous assistance of enthusiasts such as MR. RALPH S. PEER, New Zealand has gained its impetus and most of its new varieties from America.

The New Zealand Camellia Society publishes an illustrated *Camellia Bulletin* three times yearly and is following closely international developments in camellia nomenclature. With all the

Kunming *reticulata* varieties, many of the lesser known species and an ever mounting number of cultivars at their disposal, amateur and professional hybridists have already done much work in plant breeding. The Society distributes thousands of seeds each year and many members are growing seedlings with great enthusiasm and interest. A very fine new seedling of 'Spencer's Pink', to be named 'Vosper's Rose', has been exhibited at a Society meeting and attracted great attention (Fig. 28). It was raised by MRS. J. VOSPER, of Tirau, and is a beautiful semi-double form, having two or more rows of waved guard petals and a burst of stamens, sometimes almost concealed by arching petaloids. The colour is a soft, clear pink, shading almost to white at the petal edges; the flowers are weather hardy, handle well and the plant growth is upright and vigorous. This will be followed in due course by many other locally raised cultivars.

The future of the genus *Camellia* in New Zealand seems to be safely assured and I express the belief that, with our admirable climate, ample rainfall and generally suitable soil types, they will flourish here as nowhere else in the world.

CAMELLIAS AT LONGWOOD GARDENS, KENNETT SQUARE PENNSYLVANIA

By DONALD G. HUTTLESTON

THE Longwood Gardens' camellia collection was begun in 1919 at a time when but one small conservatory had been completed. In the spring of that year thirty-four varieties of Japanese camellias were obtained from Belgium through John Scheepers, Inc., of New York. Of these only the following seven remain: 'Etna', 'Fred Sander', 'Heckla', 'Magnoliaeflora', 'Mrs. William Thompson', 'Old Port' and 'St. André'.

In the spring of 1920, when the large conservatories were well under way, an additional thirty-seven varieties were obtained from France. Of these, the twenty-nine listed below remain in the collection, although a number are being carried under different, presumably more correct, names:

Angela Cocchi	Gloire de Nantes	Monsieur Faucillon
Anna Bruneau	Imbricata Rubra	Montironi
Baronne Leguay	Isabella Spinola	Montironi Rosea
Campbelli	La Pace	Nobilissima
Comte de Gomer	Madame Cochet	Preston Rose
Cruciata	Madame Lebois	Princess Baciocchi
De la Reine	Margherita Coleoni	Reine des Fleurs
Donkelaari	Marguerite Guillon	Sacco Nova
Due de Bretagne	Mathotiana	Virginia Franco
Elegans	Mathotiana Alba	

The next major addition to Longwood Gardens' collection of Japanese camellias resulted from the purchase of 116 cultivars from the Guichard Sisters in Nantes, France, in November of 1928. Many of these were the same cultivars as those obtained earlier and listed above. Others have disappeared over the intervening years, but the following thirty-five cultivars were new to the collection and are still growing here:

Adolphe Audusson	Briomarotti	Comtesse Lavinia
Alba Plena	C. M. Hovey	Maggi
Auguste Delfosse	Collettii	Cup of Beauty
Belle Judita	Comte Boutourlin	Duchesse de Caze

Eugene Lize	Kenny	Roi Leopold
Fanny Bollis	Kossuth	Souv. de Bahuaud-
Festiva	Lallarook	Litou
Fimbriata	Mme. Appoline	Souv. d'Henri
General Lafayette	Guichard	Guichard
General Lamorciere	Mme. Haas	Souv. de Mme.
General Washington	Paolina Guichardini	Colette Van
Gordoni	Prof. Giovanni	Wassenhove
Italiana	Santarelli	Tricolor (de Siebold)
Justine Heurtin	Reine MarieHenriette	Unifa del Tebro

What was apparently Longwood's first camellia representing a species other than *C. japonica* also came in this shipment from Nantes. This was *C. reticulata* of which we received three plants. None of these remains at present.

In April 1932, an additional fifteen cultivars of Japanese camellias were purchased from Cottage Gardens Co., New York. The following seven remain in the collection:

C. N. Hastie	Lady Vansittart	William S. Hastie
Il Cygno	Salmon Beauty	
Lady Derby	Sarah C. Hastie	

The first inventory of camellias was undertaken in March 1937. At the time, 372 plants representing 167 cultivars were recorded. All were Japanese camellias except for the one *C. reticulata*. In addition to those already listed and some which have apparently disappeared from the collection, eight cultivars were included which still exist in the Gardens. These are 'Altheaefflora', 'Du Puy', 'Elizabeth Boardman', 'Caprice', 'Henri Favre', 'Herme', 'Lady Hum's Blush' and 'Mrs. Fred Sanders'.

By the next inventory, taken in September 1951, only four persisting cultivars of Japanese camellias had been added to the list of 1937. These are 'Cassetti', 'Daybreak', 'Lady Clare', and 'Lotus'. As well, two plants of a white *C. sasangua* were included. This inventory listed 520 plants representing 143 varieties.

In March 1953 plants were obtained from three sources and added the first named cultivars of *C. reticulata* and *C. sasangua* to Longwood Gardens. From the Exbury Estate, Exbury, England, came *C. reticulata* (wild form), *C. Hybrid* 'Coppelia', and three cultivars of *C. japonica*—'Hi-No-Maru', 'Hana Tachibana' and 'Mercury'. From the Gulf Stream Nursery in Wachapreague, Virginia, were obtained four cultivars of *C. sasangua*—'Apple

Blossom', 'Cleopatra', 'Maiden's Blush' and 'Texas Star'. From Descanso Distributors, Inc., Chino, California, we received three forms of *C. reticulata*—'Chang's Temple', 'Lion Head' and 'Shot Silk'.

Due to the dearth of early records and the lack of attention to labelling before 1955, while the Gardens were the private estate of MR. PIERRE S. DU PONT, it is impossible to trace the sources of many plants and a number are at present unidentified. Since the activation of Longwood Foundation, Inc., in 1955, however, careful records have been kept and considerable attention has been given to labelling. In these last few years a large number of plants have been brought in from several sources. Most notable are a group of cultivated and wild selections collected in Japan by DR. JOHN L. CREECH while on an expedition sponsored under the USDA-Longwood Gardens plant exploration project. The present collection encompasses 211 named cultivars of *C. japonica* and thirty other species and varieties. In addition to those already listed previously are the following *C. japonica* cultivars and varieties:

A. J. Downing	Daikagura	Governor Earl
Aka-Koshimino	Dainty	Warren
Akimbo	Dave C. Strother	Governor Mouton
Amabilis	Dr. Tinsley	Haku-Rakuten
Ama-Ga-Shita	Duchesse de	Haku-Tsuru
Amity Wilson	Brabant	High Hat
Angustifolia	Edwin H. Folk	Hozanensis
Anne Lindbergh	Elegans Variegated	Imura
Aranin (Hito-Suji)	Emma	Iwane-Shibori
(Fig. 32)	Emmett Barnes	Joseph Pfingstl
Arnaldo da Brescia	Emmett Pfingstl	Joshua E. Youtz
Beni-Karako	Enrico Bettoni	Justinia
Betty Sheffield	Enrico Bettoni	Kamo-Hon-Ami
Betty Theisen	Variegated	Kiku-Zuki
Bicolor de la Reine	Flame	Komyo
Bokuhan	Flame Variegated	Komyotai
C. M. Wilson	Florence Stratton	Kuma-Gaya
Campbell Ashley	Flowerwood	Lady Kay
Celtic Rosea	General Dwight	Lady Lucile
Chandler's Rustique	Eisenhower	Lois Hill
Charlotte Bradford	Gigantea	Macrocarpa
Chiri-Tsubaki	Gigantea Alba	Marchioness of
Clara Green	Glen 40 Variegated	Exeter
Coral Duchess	Goshiki-Tsubaki	Margaret Jack

Margarete Hertrich	Mrs. William	Rose Mallow
Margherita Coleoni	Thompson	Rosea Plena
Variegated	Nagasaki	Rosea Superba
Marjorie	Pax	Scarlett O'Hara
Magnificent	Peach Blossom	Scented Treasure
Masterpiece	Pearl Maxwell	Serratifolia
Mathotiana Supreme	Pink Ball	Sho-No-Hanagata
Mino No Yuki	Pink Perfection	Tagoto-No-Tsuki
Mollie Moore Davis	Primavera	Te Deum
Morning Glow	Prince Albert	Thelma Dale
Mother of Pearl	Prince Eugene	Toki-No-Hagasane
Mrs. Baldwin Wood	Napoleon	Tomorrow
Mrs. Bertha A.	Prince Frederick	Traverse Plenissima
Harms	William	Ville de Nantes
Mrs. Charles Simons	Prince of Orange	Villa Madre
Mrs. Dorothy Van	(Crusader)	Virgin's Blush
der Bom	Professor Charles S.	White Empress
Mrs. K. Sawada	Sargent	White Queen
Mrs. Lyman Clarke	Purity	Woodville Red
Mrs. Nellie Eastman	Rose Emery	Yohei-Haku
Mrs. Tingley	(Fire Ball)	Yuki-Botan

Besides the *C. japonica* are these species and varieties:

<i>C. cuspidata</i>	<i>C. rusticana</i> 'Yuki-Komachi'
<i>C. granthamiana</i>	<i>C. saluenensis</i>
<i>C. hongkongensis</i>	<i>C. sasangua</i> 'Asahi-Botan'
<i>C. miyagii</i>	<i>C. sasangua</i> 'Fuji No Mine'
<i>C. oleifera</i>	<i>C. sasangua</i> 'Jean May'
<i>C. reticulata</i> 'Butterfly Wings'	<i>C. sasangua</i> 'Pink Snow'
<i>C. reticulata</i> 'Captain Rawes'	<i>C. sasangua</i> 'Rosy Mist'
<i>C. rusticana</i>	<i>C. sasangua</i> 'Shishi-Gashira'
<i>C. rusticana</i> 'Kirin-No-Homare'	<i>C. sasangua</i> 'Showa-No-Sakae'
<i>C. rusticana</i> 'Koshi-No-Haru'	<i>C. × williamsii</i> 'Donation'
<i>C. rusticana</i> 'Koshi-No-Hime'	<i>C. × williamsii</i> 'J. C. Williams'
<i>C. rusticana</i> 'Seki-No-Yume'	

Until very recently the camellias have all been grown in a large conservatory which they share with azaleas. Over 100 of the older specimens are planted out in two beds which are 187 feet long by 10 feet wide, with a walk between them. Some of these have reached a height of 20 feet. Except for those in two other narrow beds, the

remainder of the plants are in tubs. Some of the more recent acquisitions are still too small to be put on display and are in one of the growing houses.

The first *C. japonica* cultivar to flower in the greenhouse is a red paeony-flowered plant which was obtained from Belgium in 1919 under the name 'Heckla'. This begins flowering in early November, two or three weeks before any other varieties open. I have been unable to find this name in any list, but it has been suggested that the correct name is 'Are-Jishi'. From this beginning camellias are in flower through mid-March, but the greatest showing lasts from mid-January through February. They furnish one of Longwood Gardens' outstanding displays.

In the past few years we have been planting out a considerable number of plants in the outdoor gardens. As plants, most of the *C. japonica* and *C. sasanqua* appear to be hardy if protected from too much winter sun and wind. The *C. sasanqua* flower well in the late fall, but flower buds of *C. japonica* are often injured or killed by spring frosts. The late-flowering cultivars of the latter species do flower, but the blooms do not approach the perfection they attain in the greenhouses. Considerably more experimentation will be necessary, however, before camellias can be evaluated as outdoor ornamentals in this region.



Photo, R. Kingsley Tayler

CAMELLIAS AT UNDERWAY, WEST PORLOCK

FIG. 33—C. 'Wabisuke' (see p. 116)



Photos, R. Kingsley Taylor

FIG. 34—A young plant of *Camellia williamsii* 'Donation' at Kingsley Taylor (see p. 116)



FIG. 35—*Camellia reticulata*, wild form (see p. 116)

A TRIP TO SEE *CAMELLIA GRANTHAMIANA*

By CYNTHIA G. BASHALL
(*Hong Kong*)

I HAD already been on the "first ever" trip up the slopes of Tai Mo Shaan on March 16, 1956, with MR. RALPH DEAN, Head of the Hong Kong Garden Department, to see the then new camellia (since named *C. granthamiana*); but that trip, exciting though it was, proved wet and unrewarding except for the camellia itself. The clouds hung low obscuring the view and we had to keep our eyes continually on our feet for fear of slipping. I recall MR. DEAN driving back from the Shing Mun hills with bare feet whilst his footwear steamed under the car heater.

This year MR. DEAN was on home leave in England but MR. H. C. TANG (Botanist in the Garden Department) and I arranged a trip for October 16, 1958 (too early for flowering we were advised). Waking to a damp dull day I wondered if I had better cancel the trip; however, I decided to risk it and we started by car, going over the Hong Kong-Kowloon vehicular ferry, through Kowloon and out by the Castle Peak Road to T'sun Wan, then branching off up the steep narrow road to Shing Mun reservoir. Once at the first dam, we discarded the car, adjusted our shoes, rolled up our slacks to the knee and started off, umbrellas up.

The rain did not last, the mist cleared and our shoes gradually dried out. The walk, non-stop from the reservoir to the camellia takes approximately two hours there and just over an hour back. The narrow single track climbs relentlessly across and up the slopes of the highest mountain in the Hong Kong New Territories, called Tai Mo Shaan (3,130 feet), the camellia grows at just under 2,000 feet and the nearest car point is at an altitude of about 600 feet.

The first few hundred yards are steep, slippery tracks through shady pines (*Pinus masoniana*), then down through shrubby plants and creepers, over river beds and up again through more pines—these on a later trip, were alive with butterflies, black with brilliant blue markings which caught the fingers of sunlight as they danced amongst the trees. The pines give way to other trees—a large *Dalbergia*, its branches creeper-like, twining amongst the neighbouring trees, *Castanopsis fissa* and *Acacia confusa*. As these taller trees thin out, *Yucca* and *Pandanus* are seen here and there. The path

leads into more scrub, the slopes of the mountain rising steeply to the left and dropping sharply to the right to the river. Below, perhaps half a mile away *Melaleuca leucadendron*, probably planted by the Forestry Department, shows up grey-green amongst the darker foliage of the trees around, and here and there on the nearer slope *Cunninghamia lanceolata* rise above the bushes.

Along the path edges *Melastoma dodecandrum* carried its last few flowers of the season and in the wetter spots bright pink *Impatiens* and blue *Torenia* bloomed lusciously; rosettes of leaves in the stream beds proved to be *Chirita sinensis*.

The mountain slopes are covered with shrubs of all varieties—the purple-pink fruits of *Callicarpa pedunculata* alongside those of *Psychotria rubra* and the orange-red berries of *Chloranthus glaber*; fat yellow flowering buds of *Gynura*, beautiful red leaves of *Sapium discolor*, light green clusters of the large fruits of a *Jasminum*; hips of *Rosa laevigata* gleaming red here and there, *Rubus reflexus*, *Gordonia axillaris*, *Eurya japonica* and *E. macartneyi* (false tea), *Melastoma sanguineum* and wild *Gardenia*, all growing together in wild profusion.

One of our party found a pale ghost-like *Balanophora*, a grass root parasite and another plucked an inedible but pretty mountain orange. Almost half way the path runs through what was once a series of rice fields (the owners probably moved out when the valley became a catchment area for the reservoir now several miles below). Here the walking is rough. Elephant grass (*Miscanthus*) meets overhead and stone walls, formerly used for flooding the rice crops, have to be transversed, first up, then down; a few banana trees grow in this area and guava bushes are plentiful. Still rising, and leaving the elephant grass to rustle back into place, we come out on the shrubby slopes again, more patches of grass appeared on the mountainside above the great granite boulders on the now steeper slopes below. Looking back provides a beautiful scenic view of the reservoir (like a pond below) and the range of the Kowloon Hills behind. On the other side of the valley the streams drip and splash into the river below, the still air carrying the cool gurgle to us, hot and weary, above.

As we tramped over the last spur to the valley in which the camellia grows it was with delight that I saw, perhaps half a mile away, the large white flowers showing up distinctly against the dark green foliage around.

The last part of the trip is perhaps the hardest, as the camellia lies about 100 yards from the path and the way lies up a river bed. We

jumped, slipped and climbed over huge boulders. I took my shoes off and paddled and climbed in my stockinged feet clinging to branches and roots. And so we came to the camellia.

MR. H. C. TANG, who had seen it many times, was amazed at the amount of flowers, perhaps thirty to forty, and the rocks below were littered with those that had fallen. The tree is approximately 15 feet high and grows from under huge rocks, open on one side to the river and the other side backed by boulders covered with creepers, shrubs and trees.

I looked particularly for flowers with a pink flush and, from the blooms I saw, decided that it does not appear on the ageing flower. As a great many of the old flowers are of a parchment white, perhaps it is due to the duration of sunlight on the flower; those in the shade seemed whiter than those which would obviously catch full sunlight. On this trip we took cuttings and pollen, made air-layers and took photographs. The pollen is now being used for crossing with *C. hongkongensis*; MR. TANG and I have pollinated more than forty-five flowers.

I shall never forget the beautiful sight made by the grouping of many of those huge flowers, some with heads raised to the sun and some, bowed by their own weight, looking down at us. Rich glassy leaves, silver-grey branches and trunk complete the picture. Warm sun, blue sky and no sound but the chuckle of the stream; everything seemed to combine to make me feel that Nature had indeed more than rewarded me for coming.

CAMELLIA COMPETITION

April 7 and 8, 1959

By ROBERT E. ADAMS

THIS year the Camellia Show opened on Budget Day and, perhaps in keeping with the Chancellor's bright mood, a record number of entries were shown. In all some twenty-five exhibitors showed 673 blooms compared to the previous best total of twenty-five exhibitors and 648 blooms. The weather had been comparatively mild and there was no severe cold spell at any time during the dormant season. Consequently, many of the exhibitors had a good selection of blooms from which to choose and this resulted in a very high standard throughout the competition. Unfortunately there still appears to be a number of problems of nomenclature to be ironed out. On this point, competitive shows do help very considerably for plants are collected together from many gardens and looked at by a critical team of judges. The more so, therefore, it is to be regretted that the American representative for the foundation which is advancing some \$30,000 for the study of the nomenclature of camellias was not at the Show. Perhaps he will visit us next year.

In Class 1 the first prize went to SIR HENRY PRICE's 'Devonia', second prize to MAJ.-GEN. HARRISON for an unnamed seedling, and third prize to MR. REGINALD TRY for a flower of 'Alba Simplex'. For the single-flowered varieties 'Jupiter' and 'Juno', all the prizes went to flowers under the latter name and outstanding was the entry from the DUKE OF DEVONSHIRE, which obtained first prize. From a casual inspection of the exhibits these two varieties seemed to be identical and the question of their synonymy needs attention. Again this year entries of 'Kimberley' were limited, albeit the first prize to Messrs. John Waterer, Sons & Crisp and the second to MR. E. DE ROTHSCHILD were certainly merited. There may be some doubt about the validity of the name, but year after year identical plants are shown and there is *no* doubt as to what is generally understood to be the correct variety.

Class 4 called for single-flowered, red varieties not specified elsewhere and MAJ.-GEN. HARRISON's 'Silva' won first prize, followed by a red seedling from MRS. PRESTON for second place. Here again it seemed that the same variety, or at least varieties extremely akin, were shown under different names and the validity

of 'Silva' and 'Fulgens' (with their likeness to 'Juno and 'Jupiter') should be considered critically. In a similar class, this time for single-flowered white varieties, SIR HENRY PRICE won first prize with 'White Swan'. The second went to a particularly nice exhibit from Messrs. John Waterer, Sons & Crisp, who showed 'Frank Gibson' which, we assume, is one of their introductions from the United States and, as a point of interest, was the largest flower in the class.

As usual 'Hatsu-Zakura' shown by The Crown Estate Commissioners was an easy winner in Class 6, and it was very nice to see once again a specimen of the plant which does so well in the Great Park. The variety is certainly different from many other singles and MR. FINDLAY tells me that it is a valuable one for growing out of doors. The Crown Estate Commissioners also won first prize in Class 7 for showing a red-flowered seedling with limited white freckling. Once more their exhibit was outstanding in the class and it would be helpful if the variety could be given a name, as it is certainly much better than some of the nondescript material entered by the Americans in their check-list under, what seems to be, a multitude of epithets.

For Class 8 the competition was extremely keen and MR. DE ROTHSCHILD is to be congratulated on his exhibit of three single-flowered varieties, viz. 'Alba Simplex', 'Excelsa' and 'Red Cardinal'. The last two appear to be rare plants and it would be interesting to know if they are offered in trade channels as they quite definitely make a contribution to the single-flowered types. As usual one of the largest classes was for 'Adolphe Audusson' and this year there were thirteen first-rate exhibits. The MISSES E. & E. GODMAN won first prize with a bloom in perfect condition, followed by Messrs. John Waterer, Sons & Crisp for a second place, and SIR HENRY PRICE for the third. The commonly grown 'Donckelarii' was called for in Class 10 and first prize went to MR. DE ROTHSCHILD, second to the MISSES E. & E. GODMAN, and third to The Crown Estate Commissioners. Another fairly common variety is 'Gloire de Nantes' and here again MR. DE ROTHSCHILD took first prize with a well-selected bloom showing its rich pink colour and full centre. Thirteen exhibits were entered in the class for 'Lady Clare' and a plant measuring some 5 inches across was shown by the MISSES E. & E. GODMAN and won first prize. What must have been a close second went to SIR GILES LODER for his entry.

In Class 14, as an exception to the rule, the exhibits were below standard, as the blooms of 'Magnoliaeflora' seemed to be decidedly

on the small side and lacking in colour. Notwithstanding, a well-deserved first prize went to COL. SIR RALPH CLARKE. The class for any semi-double red variety not specified elsewhere was well supported. Here 'Mercury', shown by SIR HENRY PRICE, was a good first, followed by 'Compton's Brow', shown by The Crown Estate Commissioners. DR. ROBERTS showed a good specimen of 'Nigra' but this went unacknowledged.

As might be expected, the white-flowered varieties in a similar class were decidedly fewer in number and poorer in quality. The first prize went to Messrs. John Waterer, Sons and Crisp for an unnamed seedling, and the second to MR. OLIVER CUTTS for his exhibit of 'Gauntlettii'. There were other exhibits under a variety of names but it appeared that they were all the same—or very close—to that shown by MR. CUTTS. In Class 18 an assortment of some double-flowered varieties were displayed and a very good bloom of 'Haku-Rakuten' won first prize for Messrs. John Waterer, Sons & Crisp. Another good exhibit was that of 'Lady Vere de Vere' for second prize, from the MISSES E. & E. GODMAN. A most attractive variety from SIR GILES LODER was called 'Claudia Phelps', and this won the third prize. It was inevitable in Class 19 that the competition was very keen as any three semi-double varieties were called for. The three very large blooms shown by Messrs. John Waterer, Sons & Crisp were particularly fine and merited the first prize. LORD ABERCONWAY and the National Trust showed three contrasting varieties of good substance, but their exhibit was not acknowledged in the list of prize-winners.

Of all camellias the most popular one is probably 'Elegans', although exhibits were down a shade perhaps this year. The first prize was truly deserved by MRS. BAINBRIDGE for her exhibit which, although not as large as some others, was in perfect condition. The anemone-formed varieties are of particular value for growing out of doors and it was interesting to note that one which does extremely well on an east wall at Wisley won first prize in Class 23. This was the variety 'Altheaeflora', and at the show was exhibited by SIR GILES LODER. A flower of an interesting plant under the name of 'Gigantea' won second prize when shown by Messrs. John Waterer, Sons & Crisp. Size of bloom is often a dominant feature in the class calling for various anemone-formed and paeony-formed varieties, and first prize went to a specimen of 'R. L. Wheeler'; it measured a full 6 inches across and was shown by SIR HENRY PRICE. A well-deserved second prize went to Messrs. John Waterer, Sons & Crisp for a plant of 'C. M. Wilson'. The exhibitors are to be

complimented on introducing this desirable variety from America which, we are told, arose as a sport from 'Elegans'.

Where three anemone-formed or paeony-formed varieties were called for, the first prize was won by Messrs. John Waterer, Sons & Crisp for showing flowers of 'R. L. Wheeler', 'C. M. Wilson' and a sport of 'Mathotiana'. Over the years 'Contessa Lavinia Maggi' appears to have been widely planted and to vary very considerably. In Class 28, however, the plants shown had a marked uniformity and the first prize went to a very good bloom shown by MAJ.-GEN. HARRISON. Other good exhibits came from The Crown Estate Commissioners for second prize, and Messrs. John Waterer, Sons and Crisp, for what must have been a close third.

A high quality of exhibits was found in Class 30 for 'Mathotiana' (red-flowered varieties) and the MISSES E. & E. GODMAN had a large bloom which won them the leading prize. The pink forms were asked for in Class 31 and here the chief prize-winner was Messrs. Waterer, Sons & Crisp. Finally, the white variations were shown in Class 32 and The Crown Estate Commissioners had the first prize. Class 35 was for 'Souvenir de Bahuaud-Litou', an old favourite over the years. Some particularly good exhibits were shown and the first prize went to MRS. BAINBRIDGE, followed by a very close second for the MISSES E. & E. GODMAN.

Some unusual camellias appeared in Class 38. The first prize went to SIR HENRY PRICE for a small bloom—some $3\frac{1}{4}$ inches across—of 'Frau Minna Seidel'. Also in the class was a bloom of 'Augusto L. Gouveia Pinto', well shown by Messrs. John Waterer, Sons & Crisp. This variety was in excellent condition and measured some 5 inches across, but did not receive any recognition. It did so in Class 39, however, when shown by the MISSES E. & E. GODMAN. Here the second prize went to SIR HENRY PRICE for a bloom of 'Mikado' when shown in its typical form of pale rose with white edging. The MISSES E. & E. GODMAN also won first prize in Class 40, which called for any three rose-formed or formal double varieties. Here they showed a bloom of 'Augusto L. Gouveia Pinto' (which they always grow so well at Horsham), together with 'Mathotiana' and 'Imbricata Alba'. A prize-winner in Class 41 was no mean achievement as any six varieties of *Camellia japonica* were required. Special congratulations should therefore go to SIR GILES LODER for his first prize and, in particular, the blooms of 'Augusto L. Gouveia Pinto' and 'Lady Clare' were outstanding.

Leaving *C. japonica*, Class 42 was for *C. reticulata* and here the first prize was won by MAJ.-GEN. HARRISON. In its double form

C. reticulata was shown in Class 43, and among some exceptionally fine exhibits the first prize went to the DUKE OF DEVONSHIRE for a bloom 6 inches across and a bright ruby colour. Messrs. John Waterer, Sons & Crisp showed one of the "Kunming Reticulatas", namely 'Tataohung', and this received second prize. With the wide increase of interest in *C. williamsii* it was not surprising that some twenty exhibits were shown in Class 45 and a worthy first prize went to The Crown Estate Commissioners for a variety of their own raising called 'Parkside'. This is an intermediate shade of pink being darker than such varieties as 'Hiraethyn' but lighter than 'St. Ewe'. A large number of blooms of *williamsii* 'Donation' were shown in Class 46, the prizes going to MR. DE ROTHSCHILD for first, DR. ROBERTS for second, and SIR RALPH CLARKE for third.

Class 51 was found to be full of interest as it was for any three species and/or varieties and/or hybrids of camellia. In face of very keen competition the DUKE OF DEVONSHIRE won first prize for an exhibit containing *C. reticulata*, 'Mathotiana' and 'Juno', a pleasing combination which illustrated the diversity of the genus and discreet selection by the exhibitor. An even more difficult task confronted exhibitors in Class 52, where six different sorts instead of three had to be shown. In this case the first prize was worthily awarded to LORD ABERCONWAY and the National Trust and the high standard of cultivation and careful selection of varieties was acknowledged by the fact that this exhibit received the *Peer Trophy for the most meritorious exhibit in the Camellia Competition for 1959*. (Fig. 36)

In the classes for cut sprays of flowers, MR. REGINALD TRY won first prize in Class 62 for an unnamed, red-flowered seedling. The second prize went to MRS. G. PRESTON for a well-chosen spray of 'Jupiter'. Semi-double-flowered sprays were needed in Class 63 and here first prize went to the MISSES E. & E. GODMAN, followed by The Crown Estate Commissioners for second. Sprays of anemone-formed or paeony-formed camellias were not so popular but a worthy first prize went to Miss MARSH for her exhibit of 'Saturnia', while SIR GILES LODER obtained second for 'Altheaeflora'. In Class 69 sprays of *C. saluenensis* were shown and a particularly large-flowered form from LORD ABERCONWAY and the National Trust won first prize. A deep rosy pink variety was given second prize when shown by SIR RALPH CLARKE. Last year SIR GILES LODER won first prize for the difficult task of showing sprays of any six species and/or hybrids and/or varieties of camellia, and this year, in Class 74, he repeated his success with an exhibit proving to be head and shoulders above the others. In his collection a particularly good spray of

C. reticulata was shown, together with 'Cornish Snow' and a charming pink variety called 'Lady McCullough'.

For a camellia plant in bloom the first prize was won by Messrs. John Waterer, Sons & Crisp for a good specimen of *C. reticulata*. Apart from showing four large blooms there were a quantity of buds to show its potential flowering habit over a considerable period. Messrs. John Waterer, Sons & Crisp also won the first prize in the class for three camellia plants in bloom. In the class dealing with flower display, where a vase or bowl of camellias had to be submitted, MRS. McDONALD repeated her achievement of last year and again won first prize. For her entry MRS. McDONALD used the deep red-flowered variety 'Margherita Caleoni'. The material at her disposal was not all that might have been desired, but the award of first prize illustrates the excellent use which the exhibitor made of it. By contrast, SIR GILES LODER made a charming display from the use of the white-flowered variety 'Nobilissima' nicely displayed from a black vase. With this exhibit he won the second place.

TRADE EXHIBITS

This year two firms devoted their trade exhibit mainly to camellias. In the first instance a very large stand was put up by Messrs. John Waterer, Sons & Crisp, to which was awarded the Silver-gilt Flora Medal. This firm showed a number of large plants besides a collection of different varieties, including some of the best American ones which they have been wise enough to carry for the last few years and to present to the gardening public. The second trade exhibit of camellias was shown by the well-known firm of Messrs. Haskins Bros., of Bournemouth. Here again a selection of varieties was shown and the quality of the plants displayed for sale was of a high standard.

From what was exhibited, however, it seems that many, many really good plants are not freely available from nurserymen. A number of visitors must have been searching for varieties entered in the competition and it would be good to know that plants like 'Augusto L. Gouveia Pinto', 'Lady McCullough' and 'Mikado'—to mention but a few—were in good supply through our friends in the nursery trade.

CAMELLIA NOTES

Camellia williamsii 'Golden Spangle'

THERE is to be found growing in some gardens a form of *Camellia* × *williamsii* with golden variegated leaves and as a rule, this plant is labelled *C. williamsii* 'Mary Christian'.

It was MR. RALPH S. PEER, President of the American Camellia Society, who wrote pointing out that we had sent him this particular form and asked if this variegation was typical of the variety 'Mary Christian'. On reference to MR. JULIAN WILLIAMS of Caerhays Castle, we were informed that he had never seen this variegation in any plants at Caerhays.

This plant was first noticed early in 1946 among a batch of plants of different forms of *C. williamsii* at Wisley grown for planting out on Battleston Hill. It was then labelled 'Mary Christian'. The plant grew away well to reach 5 feet in a few years, but was cut down to the ground during a severe spell two or three winters later. However, the stump has since sprouted and the plant grown up again. It is not known definitely whether this plant arose as a separate seedling or as a bud or branch mutation of 'Mary Christian'.

To avoid confusion it seems desirable to give this pleasing plant a distinctive varietal name to separate it from the other forms of this magnificent hybrid. In agreement with MR. PEER, the writer has adopted the above name and makes the following brief description:

"A vigorous, lax growing shrub of good constitution, the flowers and leaves in form are typical of this hybrid. The flowers are about 3 inches across, bright cherry rose, a little deeper in colour than 'Mary Christian', but not so dark as the variety 'St. Ewe'. The stigma is rather shorter than the stamens which tend to conceal it. The leaf is dark dull green above with a central splash of soft yellow green, a pleasing and refined variegation, the leaves are finely and regularly serrated, the lower surface is polished green."

H. G. HILLIER, F.L.S., V.M.H.

Winchester

Descriptions and History of THIRTY-NINE POPULAR CAMELLIA JAPONICA VARIETIES

By CHARLES PUDDLE and FRANCIS HANGER, V.M.H.

IN presenting these Camellia notes the authors wish to emphasize the following:

1. The present list is liable to revision in future years if and when more information becomes available.
2. It must be remembered that the size of flower is more or less governed to a certain extent by the health and culture of the plant.
3. Leaves vary considerably in shape and size during their growing season and measurements given can only be approximate, although descriptions were carefully taken from fully developed adult leaves (Fig. 37).
4. The habit of a camellia varies with age and also with the position it occupies.
5. The history given is in accordance with the information at present available and is subject to revision.
6. The International Code of Nomenclature for Cultivated Plants has been followed for names except in the case of one or two varieties where it is difficult to determine the valid name, and in these cases the most popular has been retained for the time being.
7. Readers having any extra information as to origins or comments are invited to write to the authors.
8. In all cases descriptions of colours are according to the Horticultural Colour Chart.

'Adolphe Audusson' (F.C.C. 1956) (Fig. 38)

SYNONYM 'Adolphe'.

BLOOM

Form: Semi-double, Class II.

Petals: 11-13, broadly obovate, 4.5 cm. long, 5.5 cm. wide, apex rounded.

Stamens: Central, forming a barrel-shaped cylinder, some stamens occasionally taking petaloid form, especially in the open.

Diameter: 10-11 cm.

Colour: Near Claret Rose 021/1.

FOLIAGE Leaves dark green, glossy upper surface, light green under side, elliptic to broadly elliptic, average size—11 cm. long, 4.5 cm. wide, margins widely serrulate; tip acuminate, decurved; base often unequal.

HABIT Vigorous, upright, bushy.

HISTORY Introduced by M. Audusson, Angers, France, about 1877. The first listing located is by Henri Guichard of Nantes in an undated catalogue issued in 1909.

REMARKS One of the best semi-double red varieties for both outdoors and under glass. Very free flowering, flowers fairly frost resistant, good foliage and habit. The colour tone is rather variable according to the season.

There are two variants of 'Adolphe Audusson': 'Adolphe Audusson Special' with predominantly white blooms, and 'Adolphe Audusson Variegated', a dark red form with white blotches or spots.

'Alba Plena'

BLOOM

Form: Formal Double, Class VI.

Petals: Broadly obovate, tips mucronate, outer petals 4.3 cm. wide, 4.5 cm. long, decreasing in size towards centre; up to 80 in number.

Stamens: None visible.

Diameter: 9–10 cm.

Colour: White.

FOLIAGE Leaf very variable in form, from rotund to narrowly elliptic, acuminate, serrations on margin increase in number and depth from base to apex of leaf.

HABIT Eventually making a compact shrub.

HISTORY Introduced into England by Captain Connor in 1792. First illustrated in Andrews 'Botanical Repository', 1797, as 'flore pleno albo' and later under the same name by Chandler and Booth in 1831. However, in the *Transactions of the Horticultural Society of London*, 1830, it is fully described as 'Alba Plena' by Booth. In old literature the term 'Double White' or 'The Old Double White' is used, to describe this variety.

REMARKS An excellent white formal double, broad, well textured petals, flower perfectly imbricated. Petals of flower inclined to curve inwards.

'Alba Plena' produces a white sport with fringed petals called 'Fimbriata' and this was recorded by Loddiges in *Botanical Cabinet* in 1826. It often reverts to the normal rounded petals.

'Alba Simplex' (A.M. 1953)

SYNONYM 'Snow Goose'.

BLOOM

Form: Single, Class I.

Petals: 6–7, broadly obovate, apex retuse, 4.5 cm. wide, 4 cm. long.

Stamens: In central cluster, conjoined for about one-third of their length.

Diameter: 8.5 cm.

Colour: White, occasionally flecked pink.

FOLIAGE Dark green, glossy, elliptic, long acuminate to broadly elliptic, acuminate, margins widely and shallowly serrate, leaf about 12 cm. long and 5-6.5 cm. wide.

HABIT Vigorous, upright.

HISTORY This old variety is a seedling of 'Variegata' raised in 1813 by Rollison of the Tooting Nursery. It is first recorded by Samuel Curtis in his *Monograph* in 1819 as 'flore albo simplici' the single white camellia. In Loddiges *Botanical Cabinet*, 1822 it is illustrated and described as 'alba'. Later writers such as Paxton 1833 and Berlese in his *Monograph* 1838 both describe the same variety as 'Alba Simplex'. Although 'Alba' may thus be the valid name, so many other white seedlings have been given this designation that 'Alba Simplex' is retained to distinguish this, the first single white variety, from all others.

REMARKS Undoubtedly one of the best of the single whites. The single white varieties are much confused in cultivation. 'Alba Simplex' differs from most others in foliage, and although it has been cultivated for almost one hundred and fifty years, it is still one of the best.

'Altheaeflora' (A.M. 1950, A.G.M. 1953)

SYNONYMS 'Childsii'; 'Rosette'; 'Blackburniana?'; 'Anemoniflora' (erroneously).

BLOOM

Form: Paeony-formed, Class IV.

Petals: 12-18 outer petals arranged in two whorls, obovate, 5 cm. long, 4 cm. wide, rounded and often deeply notched at apex and faintly toothed, recurved, evenly arranged over one another, inner petals and petalodes oblong, smaller, forming an irregular elevated centre.

Stamens: Intermixed with central petals and petalodes and often scarcely visible.

Diameter: 10-11 cm.

Colour: Carmine 21 with deeper centre and venation.

FOLIAGE Dark to medium green upper surface, elliptic, 10 cm. long, 5 cm. wide, sharply serrated, apex long acuminate, recurved, undulating surface with a tendency to hang downwards on the branches.

HABIT Strong upright growth when young, forming an open-branched spreading bush when old.

HISTORY A seedling of 'Anemoniflora' raised in 1819 by Messrs. Chandler of the Vauxhall Nursery. Illustrated and described in *Camellia Britannica* by Chandler and Buckingham in 1825 and in their later work in 1831.

REMARKS A very hardy free-flowering variety with blooms which are fairly resistant to frost. Habit of old bushes is inclined to become

ungainly. 'Childsii' is identical and so is a recent synonym 'Rosette'. Old plants growing under the name of 'Blackburniana' appear to be very similar, if not identical with 'Altheaeflora' although the original descriptions which appeared before 1840 differ slightly. 'Anemoniflora' is quite distinct although 'Altheaeflora' received an Award of Merit under this name in 1950.

'Anemoniflora'

SYNONYMS 'Anemonaeflora'; 'Anemoneflora'; 'Waratah'.

BLOOM

Form: Anemone Form, Class III.

Petals: 5 or 6 in outer whorl, very broadly obovate, apices emarginate, 2.5 cm. wide, 4 cm. long, central mass of ligulate petalodes.

Stamens: Inconspicuous, mixed with petalodes in centre of flower.

Diameter: 7.5–8 cm.

Colour: Near Turkey Red 721/1.

FOLIAGE Dark green foliage, glossy, very broadly elliptic or very broadly obovate, margins shallowly serrate, apices short acuminate.

HABIT Vigorous, open, spreading.

HISTORY Introduced from China about 1806 and figured and described in the *Botanical Magazine* in 1814, in Loddiges *Botanical Cabinet* 1821 and by Chandler and Booth in 1831. It was the parent of many of the earlier varieties raised by Chandler and others.

REMARKS Flowers unique in formation, giving the appearance of a species. Although somewhat small the distinctive flowers are freely produced. Once the plant attains an age it is rather slow growing. Plants in cultivation as 'Anemoniflora' show some variation in colour and leaf and it is probable that other distinct seedlings are growing under this name.

'Apple Blossom' (A.M. 1933) (Fig. 41)

SYNONYM 'Joy Sander'.

BLOOM

Form: Single, Class I.

Petals: 7, obovate, 3.5 cm. wide and long.

Stamens: Central cylindrical cluster, 1.75 cm. long, golden anthers.

Diameter: 6.5–7.5 cm.

Colour: White, flushed with Rose Opal 022/2.

FOLIAGE Broadly elliptic-rotund, 6 cm. wide, 8 cm. long, tips shortly acuminate, margins shallowly crenate serrulate.

HABIT Upright, compact.

HISTORY The origin of the japonica variety which received an Award of Merit in 1933 as 'Apple Blossom' is so far unknown. There appear to be no early records of this particular plant. The name 'Apple Blossom' has been applied to at least four other camellias and whilst the name is retained for the moment, this variety may have to be

re-named when research is completed. It should not be confused with the *sasanqua* variety 'Apple Blossom' nor with 'Apple Blossom' of hybrid origin.

REMARKS C. 'Furoan', introduced from Japan in 1939, is claimed by some to be better form of C. 'Apple Blossom' but further research is needed to decide the status of these two cultivars.

'Arejishi'

SYNONYM 'Arajishi'.

BLOOM

Form: Paeony Form, Class IV.

Petals: Outer petals obovate, emarginate, 4 cm. wide, 4 cm. long.

Numerous petalodes of irregular shape, forming mass in centre of flower.

Stamens: Few, scattered among petalodes.

Diameter: 8 cm.

Colour: Currant Red 821/2.

FOLIAGE Leaves dark green, glossy, narrowly elliptic to elliptic, long acuminate, margins deeply serrate or bi-serrate.

HABIT Vigorous, spreading, open.

HISTORY An old Japanese variety first recorded in the 1891 catalogue of the Yokohama Gardeners' Association.

REMARKS One of the earliest to bloom outdoors, producing its bright red flowers in early March. Its distinctive coarse, deeply cut foliage, which hangs rather pendently on the branches, distinguishes this variety from all others. There are two forms in cultivation, 'Arejishi' and 'Arejishi Variegated' which is deep salmon-pink marked with white. They often appear on the same bush and there is also some variation in the density of the red in self-coloured flowers.

'C. M. Hovey' (F.C.C. 1879)

SYNONYMS 'Col. Firey'; 'Wm. S. Hastie'.

BLOOM

Form: Formal Double, Class VI.

Petals: Obovate, 5 cm. long, 4.5 cm. wide at margins, decreasing in size towards centre, inner petals irregularly shaped.

Stamens: Very few in centre of fully open flower.

Diameter: 9-10.5 cm.

Colour: Near Carmine 21/1.

FOLIAGE Dark green, oblong elliptic to obliquely obovate, tip short acuminate decurved, margins shallowly serrate. 13 cm. long, 7 cm. wide.

HABIT Vigorous, bushy.

HISTORY An American seedling raised by C. M. Hovey of Boston. It first flowered in 1847 and is fully described in reports of the Committee of the Massachusetts Horticultural Society 1854.

REMARKS One of the best of the formal double reds for outdoor cultivation.

There is some variation in the colour and flowers are apt to be paler than normal in our climate. It is, however, a first-rate garden camellia and the blooms are more resistant to frost damage than most doubles.

'Contessa Lavinia Maggi' (F.C.C. 1862)

SYNONYMS 'Comtesse Lavinia Maggi'; 'Lavinia Maggi'.

BLOOM

Form: Formal Double, Class VI.

Petals: Up to 35, outer petals obovate, tips rounded, 4 cm. long, 3.5 cm. wide, petals decrease in size towards centre.

Stamens: Few, hidden in centre of flower.

Diameter: 7-8.5 cm.

Colour: White, with blotches and bold stripes of Claret Rose 021.

FOLIAGE Leaves dark green, glossy, decurved, rotund to broadly elliptic, tips apiculate to short acuminate, margins crenate to shallowly serrate, leaf 9-10 cm. long, 5-6 cm. wide.

HABIT Stiff, wide, spreading.

HISTORY Raised in Italy by Conte Maggi and first recorded in *Flore de Serres* 1858 and also in *L' Illustration Horticole* 1862.

REMARKS Very irregular colouring, individual branches liable to sport "solid" pink.

Very hardy strong grower with rather coarse foliage. It is perhaps the most reliable of all variegated varieties for outdoor culture. The flowers vary from white to claret rose and the intermediate forms are striped to a varying degree. The self-coloured rose sport was named 'Lavinia Maggi Rosea' and received an S.C.C. when exhibited by William Bull in 1867.

Coquettii (A.M. 1956)

SYNONYMS 'Coquette'; 'Glen 40'.

BLOOM

Form: Formal Double, Class VI.

Petals: Numerous, broadly obovate, 5.5 cm. long, 4.5 cm. wide, becoming smaller towards centre, rounded or slightly notched at apex, bases tapered, imbricated.

Stamens: In fully open flowers it is nearly always possible to find a few stamens and under certain growing conditions flower form may vary to Incomplete Double.

Diameter: 10-11 cm.

Colour: Turkey Red 721/1, tending to be deeper in the centre.

FOLIAGE Dark green glossy upper surface, variable in shape, narrowly ovate to elliptic, 8 cm. long, 4-5 cm. wide, apex acuminate, decurved, margins serrulate.

HABIT Vigorous, upright, bushy with ample foliage.

HISTORY A seedling raised by M. Tourres of Mancheteaux, France.

Described by Berlese in his *Monograph* in 1840 and illustrated and described in his *Iconograph* in 1843. Also illustrated and described by Verschaffelt in 1848.

REMARKS A free-flowering variety which blooms over a long period. The double red flowers are fairly resistant to sun and frost but do not last long and shatter easily. It has very good deep green shiny foliage and blooms regularly. A sport called 'Coquettina' differs in having deeper red flowers with occasional white stripes.

'Devonia' (A.M. 1900)

SYNONYMS 'Devoniensis'; 'Devona'.

BLOOM

Form: Single, Class I.

Petals: 6-9, broadly obovate, 4-5 cm. long, 4 cm. wide, apices rounded and notched or acute, petals form a cup-shaped flower.

Stamens: Arranged in a loose central cluster and joined for a third of their length.

Diameter: 9 cm.

Colour: White.

FOLIAGE Dark glossy green, pale green below, broadly elliptic, 9 cm. long, 6 cm. wide, acuminate, margins serrulate.

HABIT Vigorous upright growth when young, eventually forming a well-clothed spreading bush.

HISTORY A seedling introduced by Messrs. Robert Veitch & Son Ltd., Exeter and first recorded in the *R.H.S. Journal* 1900-1 when it gained an Award of Merit. Subsequently listed as a new variety in Veitch catalogues.

REMARKS One of the best single white varieties for outdoor culture. It is often confused with 'Yukimi-Guruma' which has flat rounded petals surrounding a prominent ring of stamens. An older variety with a somewhat similar name 'Divonia' is a double pale pink with crimson stripes.

'Donckelarii'

BLOOM

Form: Semi-double, Class II.

Petals: 14-16, obovate, 4.5 cm. wide, 5 cm. long, tips emarginate.

Stamens: Irregularly placed, not very prominent. Some petalodes often present, especially when grown in the open.

Diameter: 10-11 cm.

Colour: Near Turkey Red 721, heavily blotched and marked with white.

FOLIAGE Medium, dark green, decurved, elliptic, acuminate, margins widely and shallowly serrate.

HABIT Upright, open, vigorous.

HISTORY Introduced from Japan to Belgium by Dr. Franz von Siebold in 1829. It is first described in *L'Horticulture Belge* in 1834. There are many spelling corruptions of this name but the above is correct.

REMARKS Perhaps the most reliable of all japonica varieties for out-door culture. It is free flowering, reliable and the blooms are very frost resistant. Flowers variable both in size, amount and frequency of the white blotches, some flowers coming with little or no white blotching. A rich organic mulch counteracts excessive "marbling".

It sports very freely and the two best known in this country are 'Ville de Nantes' and 'Eugene Lize'.

'Elegans' (F.C.C. 1958) (Fig. 39)

SYNONYMS 'Chandleri Elegans'; 'Elegans (Chandler)'; 'Francine'; 'Elegans Variegated'.

BLOOM

Form: Anemone Form, Class III.

Petals: Outer petals in three rows, broadly obovate, 5 cm. long and 5 cm. wide, central mass of irregularly shaped petalodes.

Stamens: Mixed with petalodes and generally hidden.

Diameter: 9-10 cm.

Colour: Rose Opal 022, sometimes splashed with white.

FOLIAGE Deep green, glossy, flat, broadly elliptic, tip short-acuminate, decurved, margins shallowly serrate, leaf 11 cm. long, 6.5 cm. wide.

HABIT Spreading, open, vigorous.

HISTORY A seedling of 'Anemoniflora' raised by Mr. Chandler of the Vauxhall Nurseries about 1825. It is fully described in 1831 by Chandler and Booth. In later years, in order to avoid confusion between 'Elegans' and an inferior variety of the same name, it became common practice in literature to denote this variety as 'Elegans' (Chandler) which became corrupted to 'Elegans Chandleri' and 'Chandleri Elegans'.

REMARKS Still one of the most popular varieties and deservedly so, for it is very hardy, flowers freely and its blooms are frost resistant. The original 'Elegans' was self-coloured but white markings were soon noticed by several writers especially on the petalodes. However, no name was given to this until recent years when it was denoted 'Elegans Variegated'. 'Elegans' is a most variable variety and many forms and sports have been named. Perhaps the two most important are 'C.M. Wilson', a light pink which in turn has sported to 'Shiro-Chan' and 'Snow-Chan', the latter being pure white.

Frau Minna Seidel

SYNONYMS 'Usu-otome'; 'Pink Perfection'.

BLOOM

Form: Formal Double, Class VI.

Petals: Numerous, imbricated, broadly obovate, 3–5 cm. long, 4·5 cm. wide decreasing in size towards centre, outer petals recurving and notched, inner petals often involute.

Stamens: None usually visible in most blooms, but occasionally a few are produced towards end of flowering season.

Diameter: 6–8 cm.

Colour: Neyron Rose 623/2, fading greatly with age.

FOLIAGE Glossy dark to medium green upper surface, variable in shape, usually broadly elliptic, 8·5 cm. long, 5·5 cm. wide, curved to both base and tip, prominent midrib, margins serrulate, apices acuminate.

HABIT When established makes a spreading bush well clothed with foliage.

HISTORY This old Japanese variety was imported by T. J. Seidel of Dresden, Germany, and in 1893 renamed by him in honour of his wife. 'Usu-Otome' is the Japanese name and this may well prove to be the earliest and valid name when further research is completed. The earliest listing of 'Usu-Otome' examined is in the 1895 catalogue of the Yokohama Nursery Company where it is described as 'Otome (Usu-Otome)' but an 1891 listing is reported. The name 'Otome' is applied to a group of double camellias which are distinguished by the Japanese prefix for the particular colour. The American synonym 'Pink Perfection' is not valid for this variety.

REMARKS 'Frau Minna Seidel' sets flower buds in great numbers, and although many fail to mature and drop, sufficient are retained to maintain a good display over a long flowering period. In dry and less favourable districts the foliage is inclined to be yellowish green. The flowers are easily damaged by frost unless planted in a sheltered position.

'Fred Sander' (A.M. 1921)

SYNONYMS 'Fimbriata Superba'; 'Fred Sanders'.

BLOOM

Form: Semi-double, Class II.

Petals: 10–15, orbicular with a short haft, 5 cm. long, 5–6 cm. wide, margins lacinate and frilled, surface waved. Buds open to show petals some time before bloom finally opens.

Stamens: In central erect column.

Diameter: 9–10 cm.

Colour: Crimson 22/1.

FOLIAGE Medium green, variable shape and size, normally elliptic, 9 cm. long, 4·5 cm. wide, surface waved and slightly twisted, margins finely serrated, apices acuminate.

HABIT Slow, upright, compact growth.

HISTORY A sport of 'Tricolor' distributed by Messrs. Sander Ltd., Bruges, Belgium. Illustrated and described in *Revue Horticole* October 1913.

REMARKS When the normal fimbriated flowers are produced this is an outstanding variety but unfortunately it has a strong tendency to revert to small round-petalled red flowers. This tendency can be checked by the prompt removal of those branches bearing the inferior flowers, but it is seldom satisfactory outdoors and is a variety for indoor culture.

Two mutations have been named 'Fred Sander Variegated' which is crimson with white blotches, and 'Cinderella', a predominantly white flower with rose-madder markings. These two sports are equally unreliable in maintaining their frilled petal formation.

'Gauntlettii' (A.M. 1930) (Fig. 42)

SYNONYMS 'Sode-gakushi'; 'Alba grandiflora'; 'Grandiflora alba'; 'Lotus'; 'Comptons Brow White'; 'Mrs. Sander'.

BLOOM

Form: Semi-double, Class II.

Petals: 10-17, usually 15, orbicular with a short haft, 6 cm. long, 6 cm. wide, distinctly notched, petals elevated at first to form a cup-shaped flower, but later usually becoming flat with outer petals recurved.

Stamens: Arranged in a loose central ring. A few white petalodes are nearly always intermingled with the stamens.

Diameter: 12 cm.

Colour: White with creamy tendency in centre.

FOLIAGE Deep to yellowish green (usually yellowish green in this country unless growing in favourable conditions) large elliptic, 10-12 cm. long, 5-6 cm. wide, thick, heavily veined, margins serrate.

HABIT A somewhat slow grower, upright when young, eventually forming an open-branched bush, not well clothed with foliage.

HISTORY Of Japanese origin. First listed and illustrated by the Yokohama Nursery Company in their 1905 catalogue under the name of 'Camellia japonica grandiflora'. This name having previously been used for another variety is not suitable and the Japanese name 'Sode-gakushi' does not appear to have been published before 1936 although further research of earlier Japanese records may establish the validity of this name. On being imported to Britain it was renamed 'Gauntlettii' by Messrs. Gauntlett in their 1909 catalogue. 'Grandiflora alba' and 'Alba grandiflora' are both invalid although extensively used in British literature for this variety. It has received two Awards of Merit, in 1930 as 'Comptons Brow White', and in 1948 as 'Alba grandiflora'.

REMARKS One of the finest of all Japanese varieties but unfortunately a little tender for most parts of the country. The flowers are very easily damaged by frost, and in all but the milder districts it is advisable to grow this variety under glass. There is some difference of opinion as to whether two varieties are grown under this name,

one erect and rigid, with cup-shaped flowers, the other slow of growth, floppy, with less erect petals, or whether these differences are due to cultural and climatic conditions. It should be noted that a few plants labelled 'Alba grandiflora' and 'Grandiflora alba' have no connection with 'Gauntlettii' and may be the original old variety described by Berlese.

'Gloire de Nantes' (A.M. 1956) (Fig. 40)

BLOOM

Form: Semi-double, Class II.

Petals: Broadly obovate, outer petals 5 cm. long, 4.5 cm. wide, decreasing in size towards middle of flower.

Stamens: In central cluster, partly merged in petals.

Diameter: 9 cm.

Colour: Carmine Rose 621/1, with deeper veining.

FOLIAGE Leaf dark green, glossy, broadly elliptic, decurved, margins widely and shallowly serrate, serrations deepen from base to apex of leaf, tip short acuminate.

HABIT Compact, vigorous.

HISTORY Introduced by Guichard of Nantes in 1895 and described in *Revue Horticole*.

REMARKS This variety can be recommended without reservation for all districts. It is one of the hardiest and its flowers are more frost resistant than most other varieties. It flowers very early in the season and goes on for a long period.

The flowers are generally semi-double, but at times so many petalodes are produced that it brings 'Gloire de Nantes' almost into the Anemone Form Class.

'Hatsu-sakura' (A.M. 1953)

SYNONYMS 'Daitairin'; 'Daitarin'; 'Hi-no-maru' (erroneously).

BLOOM

Form: Single, Class I.

Petals: 5-7, orbicular, 6 cm. long, 5-6 cm. wide, margins entire or slightly notched at apex, undulating, prominently veined, firm texture.

Stamens: Vary in arrangement and proportion to petalodes. Outdoors normally forming a prominent ring of golden stamens with white filaments and a few petalodes present especially towards the end of the flowering season. Under glass, few stamens are produced, and their place is taken by a mass of creamy-pink petalodes giving the flower a most distinctive appearance.

Diameter: 9-12 cm.

Colour: Camellia Rose 622, but paler or deeper according to growing conditions.

FOLIAGE Deep shiny green, broadly elliptic to ovate, 9 cm. long, 6 cm.

wide, apices acuminate, bases well rounded, margins serrulate, venation prominent on underside.

HABIT Upright at first but later forming an open spreading bush with somewhat pendulous branches.

HISTORY 'Hatsu-sakura' appears to be the name most widely used for this variety in Japan. It was imported under this name from the Chungai Nurseries in 1936 but was not listed until 1941. In 1938 the same variety was imported from K. Wada, Hakoneya Nurseries, Japan under the name of 'Daitairin' and also erroneously as 'Hi-no-maru'. 'Daitairin' is listed by Wada in 1941 so it is difficult to decide priority and the most popular name has been retained.

REMARKS One of the finest single varieties that have come from Japan. It has good foliage, a graceful habit, and its large distinctive flowers are freely produced and fairly resistant to frost.

'Imbricata'

SYNONYM 'Imbricata Rubra'.

BLOOM

Form: Formal Double, Class VI.

Petals: Outer petals 4.5 cm. long, 4.5 cm. wide, tips apiculate, perfectly imbricated and regular, about 70 in number.

Stamens: None visible.

Diameter: 8-9 cm.

Colour: Carmine Rose 621.

FOLIAGE Deep green, glossy, flat with long acuminate, decurved tip, broadly elliptic or elliptic obovate, margins shallowly serrated, leaf 12 cm. long, 6-7 cm. wide.

HABIT Compact, upright.

HISTORY Introduced from China by John Damper Parks for the Horticultural Society in 1824 and first flowered in 1827. It is fully described in the *Transactions of the Horticultural Society 1830*, by Booth. Illustrated and described by Chandler and Booth in 1831. In old literature it is always 'Imbricata' but when other varieties such as 'Imbricata Alba' were introduced it was often called 'Imbricata Rubra' to distinguish it.

REMARKS An excellent formal double and still a great favourite especially under glass. It is very floriferous, but liable to drop badly when used as a cut flower.

'Jupiter' (A.M. 1953)

SYNONYMS 'Juno'; 'Apollo' (erroneously); 'Sylva' (erroneously).

BLOOM

Form: Single, Class I.

Petals: 8 or 9, 4.5 cm. long and wide, broadly obovate, one or two emarginate.

Stamens: In prominent central cylinder, filaments white.

Diameter: 8.5–9 cm.

Colour: Carmine Rose 621.

FOLIAGE Dark green, glossy, ovate-elliptic or elliptic, margins shallowly but sharply serrate, tip short acuminate, leaf 5.5–6 cm. long, 9 cm. wide.

HABIT Compact, upright.

HISTORY The original 'Jupiter' is described and illustrated by Verschaffelt in 1849 and is a formal double deep rose. The variety now grown as 'Jupiter' is single in form and was introduced about 1900 by William Paul. It is figured in a line drawing in *Flora and Sylva* 1904.

REMARKS A first-class single red variety, free flowering, fairly frost resistant when in flower, and with good foliage. Sets seed freely in the open. It has been confused with other single red varieties and is represented on the Continent by a much inferior form. It gained an Award of Merit in 1953 when shown erroneously as 'Apollo' and although considered synonymous with 'Sylva' at one time, the latter has proved to be a distinct seedling.

'Kelvingtoniana' (F.C.C. 1869)

SYNONYMS 'Killwingtoniana'; 'Kellingtonia'; 'Kelvingtonii'; 'Kilvingtonii'.

BLOOM

Form: Paeony Form, Class IV.

Petals: About 12 outer orbicular petals, 5 cm. long, 5 cm. wide, rounded, slightly notched at apices, firm texture. Centre of flower consists of a mass of petalodes and small petals, elevated, forming a tufted centre.

Stamens: Intermixed with petalodes and scarcely visible unless few petalodes are present.

Diameter: 10–11 cm.

Colour: Turkey Red 721/1, marbled and splashed white.

FOLIAGE Dark green, elliptic, 10 cm. long, 5 cm. wide, apices long acuminate, rounded at base, coarse serrations, leathery, tending to undulate.

HABIT Open branched shrub, often straggly and spreading.

HISTORY The nomenclature and origin of this variety is much confused and at least fourteen spelling corruptions are known. It is probably of early American origin and named in honour of Robert Kilvington. The first record located is in the *Revue Horticole* 1847 where it is described under the obvious misspelling 'Kilingtoniana'. In 1856 it is recorded by von Biedefeld as 'Killwingtoniana' but the first reliable reference seems to be in the *Gardeners' Chronicle* 1869 where it is described on being awarded a First Class Certificate by the Horticultural Society and here the name is spelt 'Kelvingtoniana'. Although noted in the *Index to the Society's Journal and List of*

Awards published in 1937 there appears to be no other record in the *Journals*. It is also fully described by Carriere in the *Horticultural Review* as 'Killwingtoniana' in 1873. The position is further complicated by the suggestion that the variety is synonymous with 'Gigantea' described by Berlese in 1837. For the moment the name 'Kelvingtoniana' is retained for it appears probable that more than one distinct variety is involved.

REMARKS Produces blooms of good size but is inclined to become straggly when an old plant.

'Kimberley' (A.M. 1934)

SYNONYM 'Crimson Cup'.

BLOOM

Form: Single, Class I.

Petals: 5-6, broadly obovate, retuse, 3.5 cm. wide and long.

Stamens: In central hemispherical cluster, about 2 cm. across, conjoined part way from base.

Diameter: 6-7 cm.

Colour: Currant Red 821/1.

FOLIAGE Very deep green, glossy, stiff, flat, tip acuminate, decurved, broadly elliptic, margins shallowly serrate, varying in size between 4.5 cm. by 8 cm. and 11 cm. by 8 cm.

HABIT Upright, vigorous.

HISTORY Introduced by Messrs. Sander of Bruges, Belgium about 1900. Referred to in *Gardeners' Chronicle* 1923.

REMARKS Free flowering, brilliant-coloured single. It can be confused with 'Takayama', a similar-shaped flower but normally paler with pinkish filaments to stamens, and there are also inferior seedlings distributed under this name.

'Lady Clare' (A.M. 1927)

SYNONYMS 'Empress'; 'Akashi-gata'.

BLOOM

Form: Semi-double, Class II.

Petals: Petals very broadly obovate-orbicular, 15 in number, apex retuse, margins undulate, 6 cm. long, 6 cm. wide.

Stamens: About 30-35, in central cylinder, occasionally petaloid in form.

Diameter: 11.5-12.5 cm.

Colour: Neyron Rose 632/1, with darker veins.

FOLIAGE Deep green, glossy, flat and stiff, obovate with long acuminate tip, shallowly serrate margin, leaf 10 cm. long, 6 cm. wide.

HABIT Loose, open, almost pendulous branches.

HISTORY Known in Japan as 'Akashi-gata' it was introduced to Europe about 1887 and distributed by L. Van Houtte in Belgium. Plants were sent to the Caledonia Nursery, Guernsey and perhaps named



Photo, J. E. Downward

THE CAMELLIA COMPETITION, 1959

Fig. 36—The winning exhibit in Class 51, shown by LORD ABERCONWAY and the National Trust. This exhibit also received the Peer Trophy, 1959 (see p. 136)

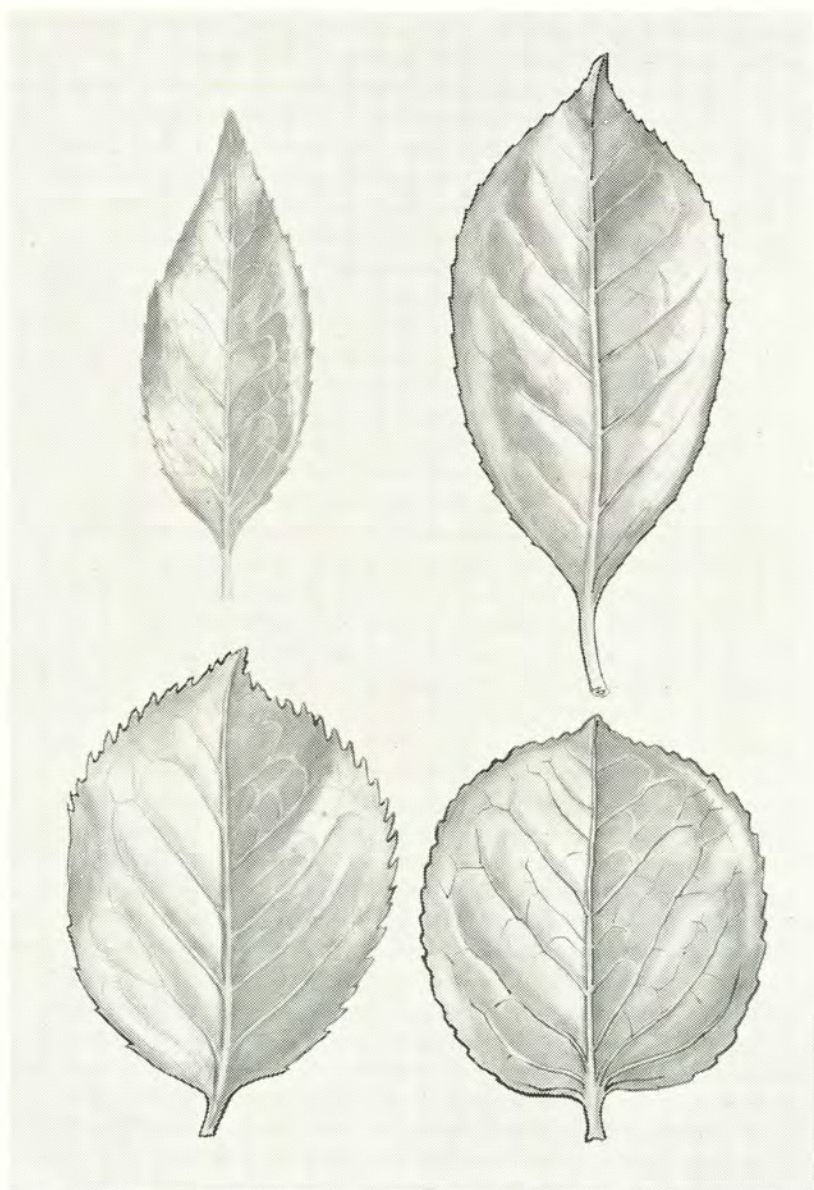
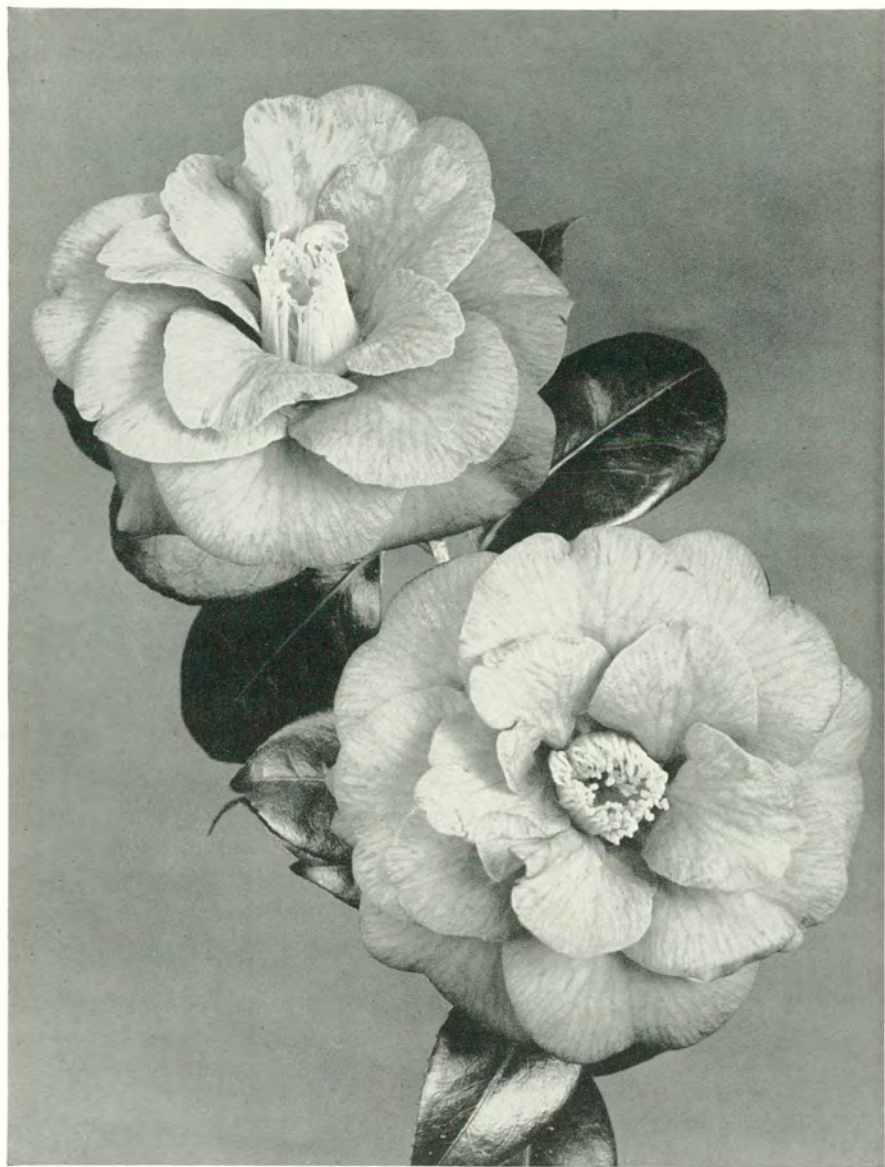
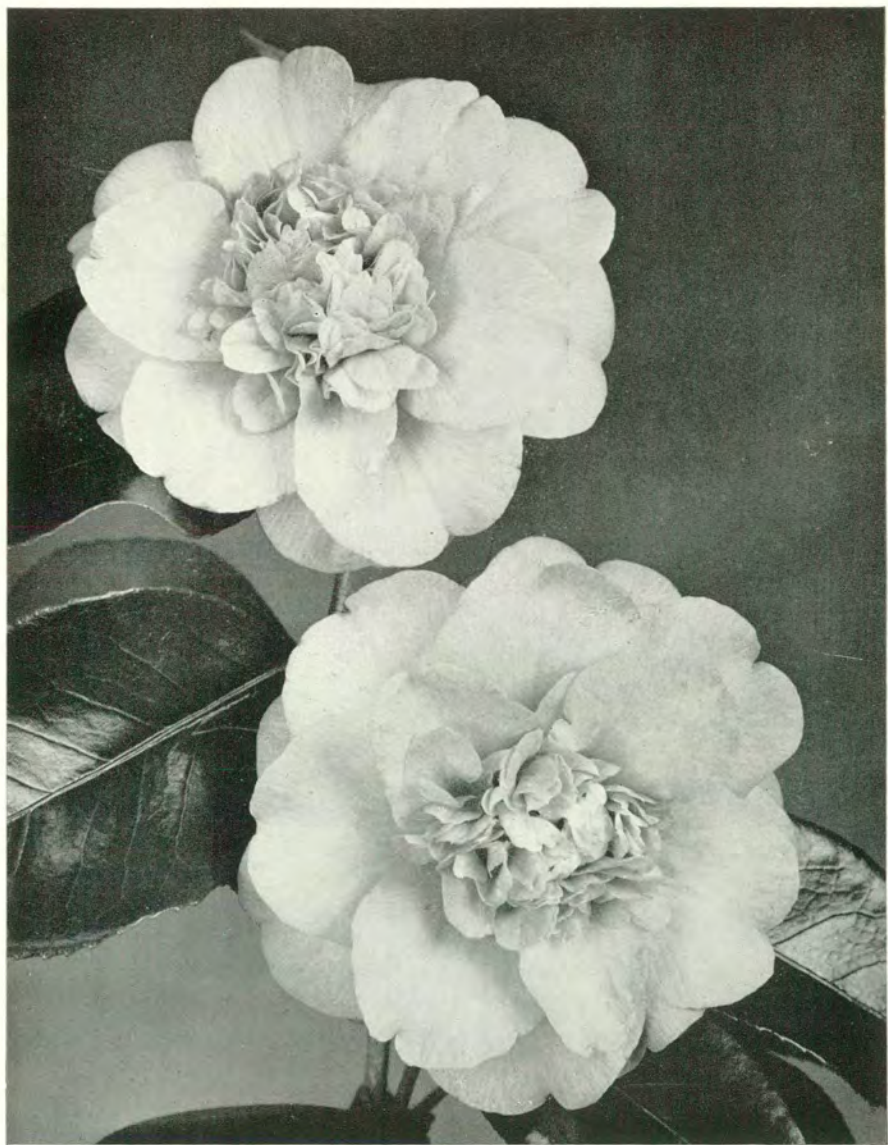


FIG. 37.—*Camellia japonica*. Variation in leaf form of 'Alba plena' from a single plant (see p. 139)



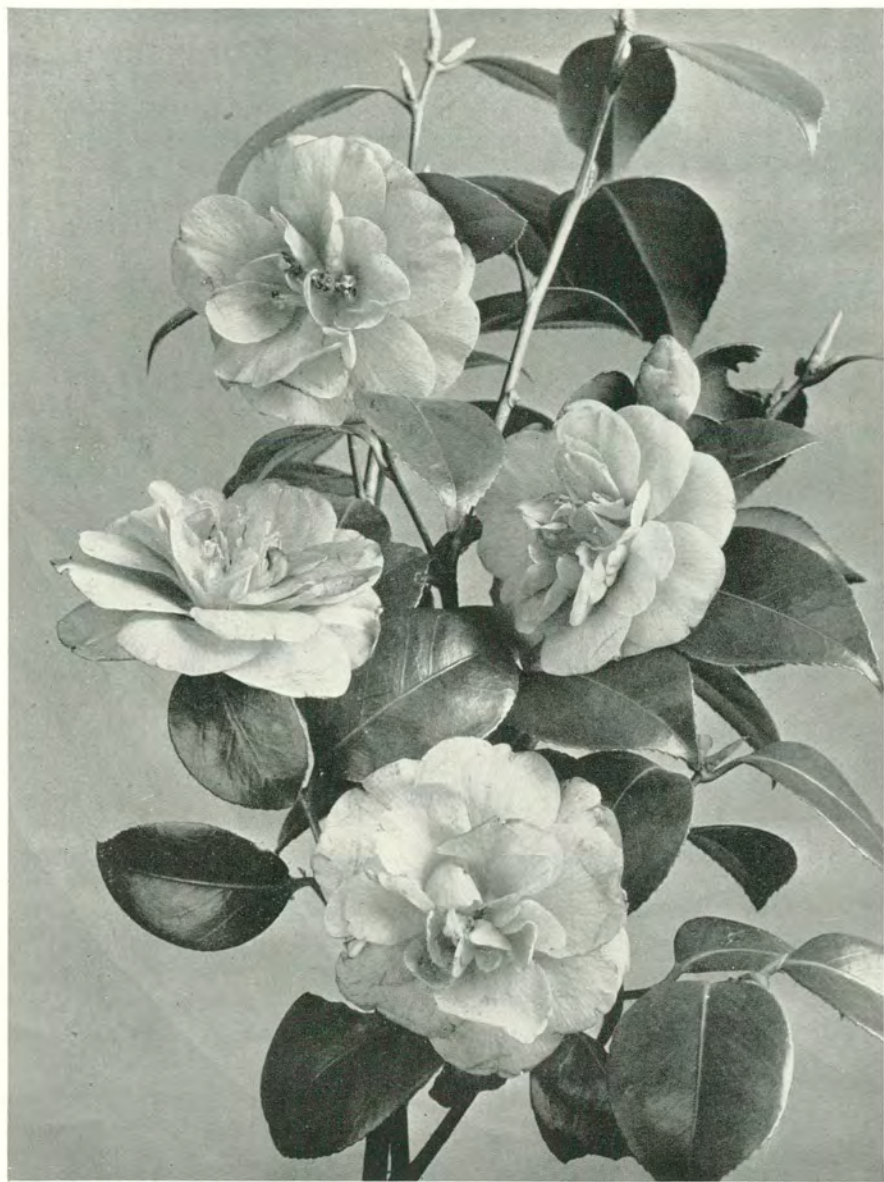
Photo, J. E. Downward

FIG. 38.—*Camellia japonica* 'Adolphe Audusson' (see p. 139)



Photo, J. E. Downward

FIG. 39.—*Camellia japonica* 'Elegans' (see p. 146)



Photo, J. E. Downward

FIG. 40.—*Camellia japonica* 'Gloire de Nantes' (see p. 149)

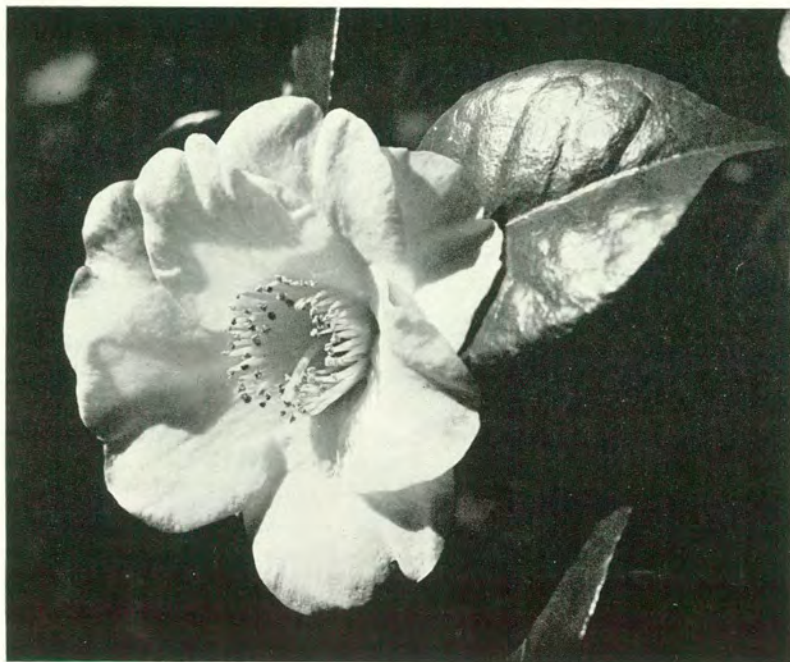


FIG. 41.—*Camellia japonica* 'Apple Blossom'

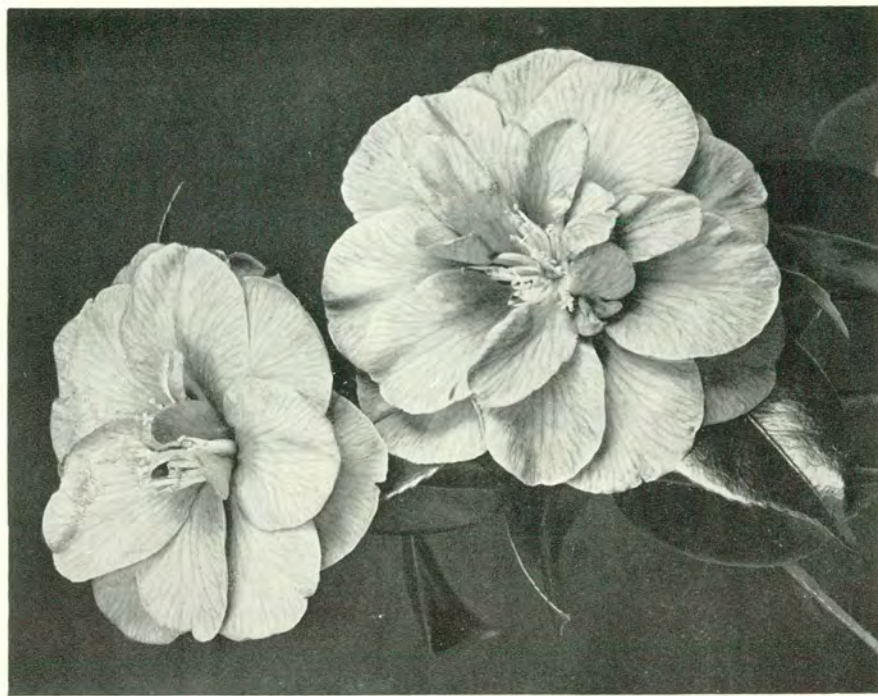


FIG. 42.—*Camellia japonica* 'Gauntlettii' (see p. 148)



Photo, J. E. Downward

FIG. 43.—*Camellia japonica* 'Magnoliaeflora' at Bodnant (see p. 154)



Photo, R. A. Mally

FIG. 44.—*Camellia japonica* 'Mercury' (see p. 156)



Photo, J. E. Downcard

FIG. 45.—*Camellia japonica* 'Nagasaki' (see p. 157)

there 'Lady Clare'. It is listed in an undated catalogue of the Caledonia Nursery issued pre-1914 and also in a dated catalogue, 1912, by Messrs. Robert Veitch and Son, Exeter. An earlier record of 'Akashi-gata' has not been found.

REMARKS One of the largest and best of the semi-double varieties. A very popular variety on account of its large flowers and almost pendulous habit. Flowers freely in the open and consistently produces a good display each season. Its variegated sport is 'Oniji' but blooms are usually self-coloured in this country. Should not be confused with a distinct Australian seedling, 'Lady St. Clair'.

'Lady de Saumarez'

SYNONYMS 'Lady de Saumerez'; 'Tricolor Red'.

BLOOM

Form: This variety resembles 'Tricolor' (see p. 160) of which it is a sport in all floral characters except:

Colour: Carmine 21 (self-coloured, not striped).

FOLIAGE AND HABIT As 'Tricolor'.

HISTORY Named and introduced by the Caledonia Nursery, Guernsey and listed by them in an undated catalogue issued about 1920. Lady de Saumarez was a relation by marriage to Admiral de Saumarez who fought at Trafalgar with Admiral Nelson.

REMARKS 'Lady de Saumarez' is a first-rate garden plant, very free flowering, and seldom reverting to the striped 'Tricolor' as do so many other sports.

'Lady Vansittart'

BLOOM

Form: Semi-double, Class II.

Petals: 18-19 in three rows, each 4.5 cm. by 4.5 cm. obovate to orbicular, apex undulate.

Stamens: In central mass, filaments sometimes petaloid.

Diameter: 6-8 cm.

Colour: Predominantly white with Carmine Rose 621 streaks and blotches.

FOLIAGE Dark green, glossy, narrowly elliptic to elliptic, margin finely and sharply serrate, apex long-acuminate, leaf about 10 cm. long, 4-5 cm. wide.

HABIT Compact, slender.

HISTORY Imported from Japan and obtained by Van Houtte, Belgium from whom it was secured by Caledonia Nurseries, Guernsey in 1887. The original plant of this variable variety was white striped rose. It is listed in an undated catalogue of the Caledonia Nurseries, printed pre-1914.

REMARKS A most variable variety producing flowers which are white to carmine rose, with all intermediate shades either striped or

blotched. It is very free flowering and makes an upright bush. The deep form was named 'Lady Vansittart Pink' by Caledonia Nurseries. The pale pink form is sometimes confused with 'Magnoliaeflora' but it has quite different foliage.

'Latifolia'

BLOOM

Form: Semi-double, Class II.

Petals: Broadly obovate, emarginate, 11–13 in number.

Stamens: Numerous, but rather merged in with petals.

Diameter: 8–10 cm.

Colour: Carmine 21/1.

FOLIAGE Deep green, glossy, very broadly elliptic, apex short acuminate, margins widely serrate. Leaf 11·5 cm. long, 7 cm. wide.

HABIT Spreading, vigorous.

HISTORY The variety 'Latifolia' as grown today is first recorded in *L'Horticulture Belge* in 1884. It was afterwards widely listed on the Continent and by Guichard in 1909. There are earlier references to 'Latifolia' but these appear to describe a distinct variety. Berlese lists *Latifolia Nova* in 1843.

REMARKS An excellent variety with beautiful broad deep green foliage, free flowering and reliable.

'Magnoliaeflora' (A.M. 1953) (Fig. 43)

SYNONYM 'Hagoromo'.

BLOOM

Form: Semi-double, Class II.

Petals: 13–20, normally 15, obovate, 5 cm. long, 3·5 cm. wide, bases tapered, apices slightly notched. Petals are channelled and recurved from base to tip, elevated and loosely arranged so that the petals are separate from one another, giving the flower a distinctive appearance.

Stamens: An erect cluster of short stamens showing in the centre of the elevated petals with some petalodes often present.

Diameter: 9–10 cm.

Colour: Dawn Pink 523, with deeper veining on reverse and ends of petals.

FOLIAGE Medium to light green, glossy, elliptic, 9 cm. long 4–5 cm. wide, apices acuminate and decurved, margins sharply cut for almost the entire length of leaf margin. Leaves hang in a pendent manner on branches.

HABIT An upright compact bush, eventually spreading, well clothed with foliage.

HISTORY A Japanese variety imported to Italy and renamed in 1886. It is described in the *Bulletine della R. Societa Toscana D'Orticultura*.

Introduced to Britain about 1890. In Japan it has been long known as 'Hagoromo'.

REMARKS A very popular variety on account of its good foliage, fine habit and distinctive flowers which are produced with great freedom each season. They are, however, rather susceptible to frost damage and it needs a sheltered position to be seen at its best.

The white form 'Magnoliaeflora alba' is known as 'Yobeki-dori' in Japan and this may be the valid name. The rose sport 'Magnoliaeflora rubra' was named in Portugal but appears to revert very easily in our colder climate. 'Magnoliaeflora' is sometimes confused with 'Peachblossom' (which see for differences), and with some forms of 'Lady Vansittart'.

'Mathotiana' (P.C. 1957)

SYNONYMS 'Grand Sultan'; 'Mathotiana rubra'.

BLOOM

Form: Rose Form, Class V.

Petals: Very broadly obovate, tips rounded or obtuse, outer petals 5 cm. by 4.5 cm.

Stamens: Few in centre of fully open flower.

Diameter: 10–11 cm.

Colour: Very near Turkey Red 721.

FOLIAGE Leaf dark green, flat, broadly elliptic, apex short acuminate, decurved. Margin shallowly but sharply serrate. Average size of leaf 11.5 cm. by 7 cm.

HABIT Upright, open, vigorous.

HISTORY 'Mathotiana', recorded to be a seedling of 'Anemoniflora' and 'Sieboldii', was raised by H. Mathot of Ghent, Belgium and is illustrated and described in *Annales de Gand* 1847. In 1849 it was described and illustrated by Verschaffelt who also in the same year figured and described 'Grand Sultan'. On the evidence of Verschaffelt's plates it seems certain that the variety now grown as 'Mathotiana' is in fact 'Grand Sultan' which may become the valid name for this variety. There is, however, some disagreement on this point and until further confirmation is obtained 'Mathotiana' is retained. When 'Mathotiana Alba' appeared the former variety was often designated 'Mathotiana Rubra' to avoid confusion. It must, however, be stressed that 'Mathotiana Alba' is not a sport of 'Mathotiana' but a distinct seedling.

REMARKS When grown under glass this is a magnificent double red variety but outdoors it can be disappointing. The flower formation varies greatly giving rise to the belief that several varieties are involved. Under glass the early blooms are often formal double, but the rose form showing stamens becomes more apparent towards the end of flowering season. The flowers tend to assume a very purple look when old or if there is a sudden change to cold weather.

Numerous forms and sports have been named including 'Augusto L. Gouveia Pinto' pink with white edges, 'Mathotiana Variegated' red with white blotches and 'Mathotiana Supreme' an incomplete double red.

'Mathotiana Alba'

BLOOM

Form: Formal Double, Class VI.

Petals: Perfectly imbricated, outer petals 5 cm. by 4.5 cm., very broadly obovate, retuse.

Stamens: Usually none visible, but occasionally produced in late blossoms.

Diameter: 12 cm.

Colour: White.

FOLIAGE Mid-dark green, glossy, but not shiny, very broadly elliptic, apex very short acuminate, margins shallowly serrate.

HABIT Loose, open, vigorous.

HISTORY A seedling raised by M. Mathot in Belgium and named after his death. Illustrated and described by Verschaffelt in 1858.

REMARKS It should be noted that this variety has no connection with the double red 'Mathotiana'. It has, however, produced two sports: 'Mathotiana rosea' and the paler 'Souvenir de Bahuaud-Litou'. The pure white flowers are occasionally spotted pink showing its tendency to sport. It is inclined to become a little straggly when old but otherwise is a good double white, although like all blossoms of this type, easily damaged by frost.

'Mathotiana Rosea' (A.M. 1954)

BLOOM

Form: This variety resembles 'Mathotiana Alba' of which it is a sport in all floral characters except:

Colour: Carmine 21 in outer petals paling to Carmine 21/2 in centre.

FOLIAGE As 'Mathotiana Alba'.

HABIT As 'Mathotiana Alba'.

HISTORY A sport of 'Mathotiana Alba' which arose about 1870. It appears to have been first listed by James Veitch & Son, of Chelsea in 1874.

'Mercury' (A.M. 1948) (Fig. 44)

BLOOM

Form: Semi-double, Class II.

Petals: 15-20, orbicular, 5 cm. long, 4-5 cm. wide, inner petals decreasing in size and narrower, rounded, notched at apex, outer petals slightly recurved, prominent venation.

Stamens: Arranged in a loose central ring and often intermixed with petalodes.

Diameter: 10–11 cm.

Colour: Crimson 22, with deeper venation.

FOLIAGE Dark glossy upper surface, elliptic, 10 cm. long, 5 cm. wide, margins serrulate, apices acuminate, tapering evenly to base.

HABIT Vigorous, upright with ample foliage.

HISTORY Introduced by William Paul & Sons about 1900 and recorded in *The Garden* 1911. Although the name 'Mercury' has been applied to other varieties in old literature, those generally cultivated in Britain are derived from plants distributed by William Paul.

REMARKS A very fine semi-double variety with good foliage and large crimson flowers which are freely produced. In the open flowers are deeper in colour but often smaller and with few petalodes.

'Nagasaki' (A.M. 1953) (Fig. 45)

SYNONYMS 'Lady Audrey Buller'; 'Mikenjaku'; 'Lady Vere de Vere' (erroneously); 'Bikashi Bia'; 'Marguarita'.

BLOOM

Form: Semi-double, Class II.

Petals: 12 or 13, 5–6 cm. long, 6–7.5 cm. wide, orbicular or oblate, apex truncate.

Stamens: In a central cluster, often some petalodes present.

Diameter: 11–12 cm.

Colour: Carmine 21/1, marbled or spotted white, but self-coloured flowers occasionally occur.

FOLIAGE Dark green, glossy, broadly obovate, leaves 13.5 cm. long, 8 cm. wide, margins coarsely bluntly serrate, apex short acuminate.

HABIT Vigorous, upright to spreading.

HISTORY Introduced from Japan by Gerald Waller and described in *The Garden* 1889. Distributed by B. S. Williams and Van Houtte, from whom Caledonia Nurseries, Guernsey obtained it in 1898.

REMARKS A handsome semi-double variety especially valuable for outdoor culture for its flowers are reasonably frost resistant. As an old plant it forms a spreading bush with good foliage. The degree of white blotching varies greatly and although forms have been recorded, they cannot be distinguished from 'Nagasaki' after a few years.

'Nobilissima'

SYNONYMS 'Fuji-yama'; 'Noblissima'.

BLOOM

Form: Anemone Form, Class III.

Petals: Outer petals in two or three rows, cupped obovate, emarginate, central mass of stamens and variously shaped petals.

Stamens: Intermixed with petals.

Diameter: 8–9 cm.

Colour: Creamy white.

FOLIAGE Deep green, shiny, broadly elliptic, frequently oblique,

margins irregularly serrate, apices short acuminate, leaf up to 11 cm. long, 8.5 cm. wide.

HABIT Compact, bushy and vigorous.

HISTORY Introduced from Japan into Europe. Said by Berlese to have come from Belgium in 1835 when illustrated and described by him in his *Iconograph* in 1841. However, as it appears to be similar to the Japanese variety 'Fuji-yama' it was perhaps brought to Belgium from the East at the same time as Donckelarii. The first record of the name appears to be by Berlese in his *Monograph* 1837.

REMARKS Very early-flowering variety which when grown in the open is often caught by frost. It is, however, very free flowering and in most winters gives a satisfactory display but under glass the flowers are seen to perfection.

'Peachblossom'

SYNONYMS 'Fleur de Pêche'; 'Fleur de Pêcher'; 'Fleur Dipater'.

BLOOM

Form: Semi-double, Class II.

Petals: 15-20, obovate, 4-5 cm. long, 3-3.5 cm. wide, often much smaller towards the centre, apices slightly notched, petals elevated but not channelled, of firm texture.

Stamens: Set in heart of flower and almost hidden by petals, of unequal length and intermixed with petalodes.

Diameter: 7-9 cm.

Colour: Claret Rose 21/3.

FOLIAGE Dark green, thick and leathery, narrowly ovate, 9 cm. long, 4.5 cm. wide, apices long acuminate, fine serration, leaves show tendency to twist and curl.

HABIT Compact bush spreading with age.

HISTORY This variety is generally considered to be of European origin although no definite information as to its introduction has so far been located. In Britain it is known as 'Peachblossom' and on the Continent 'Fleur de Pêche' or 'Fleur de Pêcher'. Since about 1930 it has been catalogued by several nurserymen both here and on the Continent with perhaps the British firm of Peed the earliest.

REMARKS A fine free-flowering variety of good foliage. In some seasons the flowers are inclined to be small but this is no great drawback as it is so floriferous. It has been confused with 'Magnoliaeflora' but is easily distinguished by its dark green undulating foliage and its deeper and much smaller flowers which have flatter and not channelled petals.

'Preston Rose'

SYNONYM 'Duchesse de Rohan'

BLOOM

Form: Paeony Form, Class IV.

Petals: Broadly obovate-orbicular 3.5 cm. by 3 cm., central mass of twisted irregularly shaped petalodes.

Stamens: Few, intermixed with petals.

Diameter: 9-9.5 cm.

Colour: Carmine 21/1.

FOLIAGE Dark green, very broadly elliptic to orbicular, tip blunt pointed or short acuminate, margin crenate-serrate. Leaf 9 cm. by 7.5 cm. average size.

HABIT Free, open, vigorous.

HISTORY The origin of this variety has not been located but it appears that it originated in France where it is also called 'Duchesse de Rohan'. Certainly it has been in cultivation since before 1846 and the nomenclature position needs further research. The name 'Preston Rose' is retained in this list.

REMARKS A hardy variety which resists frost damage remarkably well, and is in the forefront of Paeony-formed camellias for general outdoor culture.

'*Rubescens Major*' (A.M. 1959)

SYNONYMS 'Paolina Guichardini'; 'Princess Ann'.

BLOOM

Form: Rose Form, Class V.

Petals: Very broadly obovate, apex rounded, thick in texture, 5 cm. by 5.5 cm.

Stamens: Some showing in centre of fully open flowers.

Diameter: 11 cm.

Colour: Crimson 22/1, with darker veining.

FOLIAGE Deep green, glossy, very variable in shape from narrowly elliptic (15 cm. by 6 cm.) to broadly elliptic (8 cm. by 5 cm.), apex short to long acuminate, margins shallowly serrate.

HABIT Compact, bushy.

HISTORY The origin of '*Rubescens Major*' is not at present known. It was first listed by Henri Guichard of Nantes in 1909. Guichard also listed at the same time 'Paolina Guichardini' describing it as a "double white tinged carnation" but later catalogues give the description "imbricated cherry red" which would fit '*Rubescens Major*'. Certainly most plants in Britain labelled 'Paolina Guichardini' are '*Rubescens Major*'. It appears that this name was applied to '*Rubescens Major*' in error by Guichard for 'Contessa Paolina Guicciardini' is described by Mercatelli of Florence in 1881 as "double white streaked rose", which corresponds with his original description but he has corrupted the name to his own.

REMARKS The flower has a characteristic boss of unopened petals in its centre until it is almost fully blown.

This is one of the foremost of all double varieties. Its attractive

veined petals and perfectly shaped flowers are freely produced and long lasting.

'Souvenir de Bahuaud-Litou'

SYNONYMS 'Bahoud-Litou'; 'Mathotiana Pale Pink'.

BLOOM This variety resembles 'Mathotiana alba' of which it is a sport in all floral characters except:

Colour: Rose Pink 427, often deeper in centre of petals.

FOLIAGE AND HABIT As 'Mathotiana alba'.

HISTORY A sport of 'Mathotiana alba' which appeared in the Nantes region of France. Both Bahuaud and Litou were noted camellia growers until 1930 having been active in the Nantes region for many years. It is first recorded in an undated catalogue issued in 1909 by Henri Guichard of Nantes.

REMARKS This variety requires glasshouse culture to produce flowers of high quality, and often under these conditions the centre of the flower is greatly elevated (almost tiered). In the open flowers are smaller and easily damaged by frost.

'Tricolor'

SYNONYMS 'Waka-no-Ura'; 'Tricolor de Sieboldii'.

BLOOM

Form: Semi-double, Class II.

Petals: 14–20, orbicular, 4.5 cm. long, 4.5 cm. wide, margins notched at apex. Petals form a cup-shaped bloom, but spread almost flat with age.

Stamens: Central erect column, often intermingled with a few petalodes.

Diameter: 7–9 cm.

Colour: Very variable in cultivation but original was white, striped with Neyron Rose 623.

FOLIAGE Bright medium-green, lanceolate, 9 cm. long, 3–4 cm. wide, apex long-acuminate, serrations coarse, undulated and twisted at the centre with a tendency for the margins to roll under.

HABIT Forms a well-clothed dense spreading bush.

HISTORY Introduced from Japan to Belgium in 1829 by Dr. Franz von Siebold. It is described in the *Horticultural Journal* in 1837, and illustrated and described by Berlese in his *Iconograph* in 1841. In Japan it is known as 'Waka-no-Ura' (but this name does not appear to have been published until 1891).

REMARKS This reliable free-flowering variety is one of the best for outdoor culture in Britain. It forms a pleasing bush, well clothed with its distinctive foliage. The flowers are very variable in colour, the self-red sport is called 'Lady de Saumarez' and the pure white form 'Tricolor White'. Between these two extremes there are many variations of the original striped form, some with a prepon-

derance of deep rose stripes, others with few stripes but a suffused pink background. On an old bush it is not uncommon to see these mutations occurring at the same time.

'Ville de Nantes'

SYNONYM 'Donckelarii Frise'.

BLOOM

Form: Semi-double, Class II.

Petals: Orbicular, 5.5 cm. by 5.5 cm., irregularly twisted, margins serrate, apices rounded. Buds open to show petals some time before finally opening.

Stamens: In central cylinder, but often merged in petals.

Diameter: 11 cm.

Colour: Turkey Red 721, often boldly blotched and streaked with white.

FOLIAGE Dark green, glossy, elliptic 8-9.5 cm. long, 4 cm. wide, apex acuminate, margins very shallowly serrate.

HABIT Slender, stiff and branched.

HISTORY Introduced by Huertin of Nantes about 1912 and listed by Guichard and several Belgian nurseries from 1920 onwards. It is a seedling or sport of 'Donckelarii'.

REMARKS This variety is not seen at its best outdoors in Britain but under glass the frilly-edged petals and red and white colouring make it an attractive variety. It does not appear to revert so easily as do sports of this type. Self-coloured red flowers are often produced and this form is known as 'Ville de Nantes Red'. It has produced a very good paeony-formed sport with fimbriated petals known as 'Lady Kay'.

CAMELLIAS AND RHODODENDRONS WHICH RECEIVED AWARDS IN 1959

Camellia japonica 'R. L. Wheeler', A.M. March 24, 1959. Although this cultivar was first listed as late as 1951 in the American check list, *The Camellia: Its Culture and Nomenclature*, it is quickly proving of outstanding value as a garden plant and one for the show bench. The flowers are anemone form, measure some 5 inches across and the sixteen petals are in two rows and coloured Carmine (H.C.C. 621-621/1). On the petaloids is some limited, white flecking; the stamens are few and inconspicuous, the majority being petaloid. Serrations on the leaves are rounded. Exhibited by Messrs. J. Waterer, Sons & Crisp Ltd., The Nurseries, Bagshot, Surrey (Fig. 20).

Camellia japonica 'Rubescens Major', A.M. March 24, 1959. Flowers on this cultivar are formal double, 4 inches across and the petals coloured a pale shade of Carmine (H.C.C. 621). Around the edges of the leaves the serrations are small. Exhibited by Messrs. J. Waterer, Sons & Crisp Ltd., The Nurseries, Bagshot, Surrey (Fig. 21).

Rhododendron (elliottii × Fusilier) 'Beefeater', F.C.C. May 25, 1959. A description of this plant was given in the *R.H.S. Journal*, 83 488. It was exhibited by the R.H.S. Gardens, Wisley, Ripley, Woking, Surrey.

Rhododendron chaetomallum F.25601, A.M. April 7, 1959. In many respects this species is a variable one and particularly so in the amount of leaf indumentum and colour of the flowers. On MR. DE ROTHSCHILD'S plant the truss was five-flowered, loose and drooping and the corolla, with its deep basal nectaries, was coloured Turkey Red (H.C.C. 721). On the underside of the leaves there was a dense indumentum, light brown in colour. Exhibited by E. de Rothschild, Esq., Exbury, nr. Southampton (Fig. 17).

Rhododendron (Shepherd's Delight g.) 'Fleece', A.M. April 21, 1959. From the crossing of R. Loderi and R. 'Luscombei' the singular shade of pink from the latter parent has predominated to give the hybrid a most attractive flower. Each one is coloured a varying degree of Rhodomine Pink (H.C.C. 527/2) with some deep

pink flushes and limited red spotting on the upper lobe. Seven such flowers make up each loose truss. Exhibited by Mrs. R. M. Stevenson, Tower Court, Ascot, Berks. (Fig. 8).

Rhododendron (Azalea) ('Glory of Numazu' × indicum) 'General Wavell', A.M. June 23, 1959. By reason of its late-flowering habit, this low-growing azalea makes an attractive addition to any light woodland garden. The flowers appear singly, are $3\frac{1}{4}$ inches across and coloured a bright shade of Camellia Rose (H.C.C. 622/1) suffused in the centre of each lobe with Porcelain Rose (H.C.C. 620) while the central three lobes are marked with limited crimson spots. The short pedicel and calyx are both ciliate. Exhibited by Capt. Collingwood Ingram, F.L.S., V.M.H., The Grange, Benenden, Cranbrook, Kent (Fig. 7).

Rhododendron (elliottii × wattii) 'Morvah', F.C.C. May 5, 1959. A description of this plant appeared in *R.H.S. Journal*, 81, 464. Exhibited by Lt.-Col. Sir Edward Bolitho, K.B.E., D.S.O., Trengwainton, Heamoor, S.O., Penzance (Fig. 6).

Rhododendron (erigynum × 'Tally Ho') 'Rosenkavalier', A.M. June 9, 1959. On this plant the large, heavy truss is composed of fifteen blooms. Each flower is 4 inches across and coloured Scarlet (H.C.C. 19/1) with scattered, red spotting on the upper lobes. The nectaries are deep and stigma pubescent towards its base. On the underside of the leaves there is a fawn indumentum which, upon touch, quickly becomes glabrous. Exhibited from the R.H.S. Gardens, Wisley, Ripley, Woking, Surrey (Fig. 5).

Rhododendron ('Exbury Naomi' × litiense) 'Tosca', A.M. May 5, 1959. This is a hybrid of recent introduction with a rounded, neat truss made up of ten flowers. On each the corolla is $3\frac{3}{4}$ inches wide, shallow campanulate and coloured Primrose Yellow (H.C.C. 601/3), while the opening buds are tinged with pale pink. Exhibited from the R.H.S. Gardens, Wisley, Ripley, Woking, Surrey.

Rhododendron wardii 'Ellestee', A.M. May 5, 1959. This particular form of *R. wardii* is easily distinguished by a deep crimson blotch in its throat, contrasting sharply with the remainder of the clear yellow corolla. It is unusual to see a blotched variant of this sort although Mr. DAVIDIAN has reported a fine specimen at the Royal Botanic Garden, Edinburgh. Exhibited by Capt. Collingwood Ingram, F.L.S., V.M.H., The Grange, Benenden, Cranbrook, Kent (Fig. 16).

AWARDS TO RHODODENDRONS AFTER TRIAL AT WISLEY, 1959

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 variety was that under which it was grown in the trial.

ALICE DE STUERS. (Raised by Messrs. M. Koster & Sons, Boskoop, Holland, and sent by Messrs. Sunningdale Nurseries, Windlesham, Surrey.) **A.M.** May 11, 1959. A deciduous azalea. Plant 4 feet high, 4 feet spread, vigorous, compact upright habit, free-flowering; leaves $3\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, medium green. Flower truss 6 inches diameter, $5\frac{1}{2}$ inches deep, compact, dome-shaped, ten flowers per truss; corolla $3\frac{3}{4}$ inches diameter, $2\frac{3}{4}$ inches long, expanded funnel-shaped, Salmon (H.C.C. 412/1), suffused Chinese Coral (H.C.C. 614/1), spotting on upper petal at throat orange. Flowering from May 4, 1959. [915]

BLUE ENSIGN. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd., Goldsworth Nurseries, Woking, Surrey.) **A.M.** May 11, 1959. A hardy hybrid rhododendron. Plant 6 feet high, 8 feet spread, vigorous, compact upright habit, very free-flowering; leaves $5\frac{1}{2}$ inches long, 2 inches wide, dark dull green. Flower truss $5\frac{1}{2}$ inches diameter, $5\frac{1}{2}$ inches deep, compact, globular-shaped, fifteen to eighteen flowers per truss; corolla $2\frac{1}{2}$ inches diameter, 2 inches long, fully expanded funnel-shaped, margins much waved and slightly creped, white at throat shading to Cobalt Violet (H.C.C. 634/1) at margins, heavy spotting on upper petal at throat purple. Flowering from May 6, 1959. [721]

COLYER. (Raised by Mr. C. E. Brown, introduced and sent by Messrs. D. Stewart & Son Ltd., Ferndown, Dorset.) **A.M.** May 21, 1959. An evergreen azalea. Plant 2 feet high, 3 feet spread, vigorous, compact habit, very free-flowering. Flower truss $3\frac{1}{2}$ inches diameter, 3 inches deep, compact, dome-shaped, six to ten flowers per truss; corolla $2\frac{1}{2}$ inches diameter, $1\frac{3}{4}$ inches long, funnel-shaped, margins waved, Cyclamen Purple (H.C.C. between 30/1 and 30/2), spotting on upper petal at throat crimson. Flowering from May 12, 1959. [931]

GOLDSWORTH ORANGE. (Raised, introduced and sent by Messrs. Walter C. Slocock Ltd.) **A.M.** June 11, 1959. A hardy hybrid rhododendron. Plant $3\frac{3}{4}$ feet high, 6 feet spread, vigorous, spreading habit, free-flowering; leaves 5 inches long, 2 inches wide, medium green. Flower truss 6 inches diameter, $4\frac{1}{2}$ inches deep, lax, dome-shaped, eight to ten flowers per truss; corolla 3 inches diameter, $2\frac{1}{2}$ inches long, funnel-shaped, margins waved, Egyptian Buff (H.C.C. between 407 and 407/1) suffused Shell Pink (H.C.C. 516/2) at margins. Flowering from June 6, 1959. [745]

IMA-SHOJO. (Sent by Messrs. Knap Hill Nursery Ltd., Lower Knap-hill, Woking, Surrey.) **A.M.** April 30, 1959. An evergreen azalea. Plant 2 feet high, $3\frac{1}{2}$ to 4 feet spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs and threes; corolla $1\frac{1}{10}$ inches diameter, $\frac{7}{8}$ inch long, fully expanded funnel-shaped, a shade very near Crimson (H.C.C. 22/1), slightly deeper colour in throat. Flowering from April 23, 1959. [508]

MEDWAY. (Raised and sent by The Royal Horticultural Society's Gardens, Wisley, Ripley, Woking, Surrey.) **A.M.** May 11, 1959. A deciduous azalea. Plant 5 feet high, 5 feet spread, vigorous, upright habit, free-flowering; leaves $4\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, medium green. Flower truss 6 inches diameter, 5 inches deep, compact, dome-shaped, ten to thirteen flowers per truss; corolla $3\frac{1}{2}$ to 4 inches diameter, $2\frac{3}{4}$ inches long, fully expanded funnel-shaped, margins waved, frilled and creped, Neyron Rose (H.C.C. 623/3) deepening to Neyron Rose (H.C.C. 623/1) towards margins, blotch at throat golden yellow. Flowering from May 8, 1959. [308]

MOTHER'S DAY. (Raised and introduced by Messrs. van Hecke, Zevenecken, Germany, and sent by Messrs. Walter C. Slocock Ltd.) **A.M.** May 21, 1959. An evergreen azalea. Described *R.H.S. Journal* 81, pp. 457 and 458 (H.C. 1956). Flowering from May 8, 1959. [193]

NORMA. (Sent by Messrs. Sunningdale Nurseries.) **A.M.** May 11, 1959. A deciduous azalea (Rustica). Plant $4\frac{1}{2}$ feet high, 5 feet spread, vigorous, compact upright habit, very free-flowering; leaves $3\frac{3}{4}$ inches long, $1\frac{1}{2}$ inches wide, medium glossy green. Flower truss $3\frac{3}{4}$ inches diameter, $2\frac{1}{2}$ inches deep, compact, dome-shaped, twelve to fourteen flowers per truss; corolla $1\frac{3}{4}$ inches diameter, $1\frac{3}{8}$ inches long, hose-in-hose, funnel-shaped, margins slightly waved, Azalea Pink (H.C.C. 618/2) suffused Carmine Rose (H.C.C. 621/1). Flowering from May 9, 1959. [866]

TAY. (Raised and sent by The Royal Horticultural Society's Gardens.) **A.M.** May 21, 1959. A deciduous azalea. Plant $4\frac{1}{4}$ feet high, $4\frac{1}{2}$ feet spread, vigorous, spreading habit, very free-flowering; leaves $4\frac{1}{4}$ inches long, $1\frac{1}{2}$ inches wide, medium glossy green tinged bronze. Flower truss 6 inches diameter, $5\frac{1}{2}$ inches deep, compact, dome-shaped, ten to fourteen flowers per truss; corolla $3\frac{1}{2}$ inches diameter, $2\frac{3}{4}$ inches long, fully expanded funnel-shaped, margins waved and frilled, Chinese Yellow (H.C.C. between 606 and 606/1), blotch at throat orange. Flowering from May 12, 1959. [310]

VUYK'S SCARLET. (Raised by Messrs. Vuyk van Nes, Boskoop, Holland, introduced and sent by Messrs. Walter C. Slocock Ltd.) **A.M.** May 11, 1959. An evergreen azalea. Plant 15 inches high, 21 inches spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs: corolla $2\frac{1}{4}$ inches diameter, $1\frac{3}{4}$ inches long, funnel-shaped, margins much waved, Crimson (H.C.C. between 22 and 22/1). Flowering from April 27, 1959. [271]

BLUE DANUBE. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) **H.C.** May 21, 1959. A hardy hybrid rhododendron. Plant 4 feet high, 3 to 4 feet spread, vigorous, compact upright habit, very free-flowering; leaves $3\frac{3}{4}$ inches long, $1\frac{1}{2}$ inches wide, dark green. Flower truss $7\frac{1}{2}$ inches diameter, $7\frac{1}{2}$ inches deep, compact, dome-shaped, twenty to twenty-five flowers per truss; corolla $3\frac{1}{2}$ inches diameter, $2\frac{1}{2}$ inches long, fully expanded funnel-shaped, margins waved and slightly creped, Cobalt Violet (H.C.C. 634/3) deepening at margins to Cobalt Violet (H.C.C. 634), spotting on upper petal mustard yellow. Flowering from May 15, 1959. [175]

PRINS BERNHARD. (Raised by Mr. A. Vuyk, introduced and sent by Messrs. Vuyk van Nes.) **H.C.** May 11, 1959. An evergreen azalea. Plant 18 inches high, 30 inches spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs; corolla 2 inches diameter, $1\frac{3}{4}$ inches long, funnel-shaped, margins slightly waved, Geranium Lake (H.C.C. between 20 and 20/1), slight brownish spotting at throat. Flowering from May 8, 1959. [124]

PURPLE TRIUMPH. (Raised by Mr. A. Vuyk, introduced and sent by Messrs. Vuyk van Nes.) **H.C.** May 11, 1959. An evergreen azalea. Plant 24 inches high, 30 inches spread, vigorous, spreading habit, very free-flowering, flowers borne in pairs; corolla $2\frac{1}{4}$ inches diameter, $1\frac{1}{2}$ inches long, funnel-shaped, margins waved, Cyclamen Purple (H.C.C. 30/1). Flowering from May 7, 1959. [128]

SONATA. (Raised, introduced and sent by Messrs. G. Reuthe Ltd., Keston, Kent.) **H.C.** May 11, 1959. A hardy hybrid rhododendron. Plant $3\frac{1}{2}$ feet high, $4\frac{1}{2}$ feet spread, vigorous, compact slightly spreading habit, free-flowering; leaves $2\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, dark green. Flower truss $5\frac{1}{4}$ inches diameter, 4 inches deep, lax, dome-shaped, eleven to thirteen flowers per truss; corolla 2 inches diameter, $1\frac{3}{4}$ inches long, funnel-shaped, margins slightly waved, Chinese Coral (H.C.C. 614/2) changing to Crimson (H.C.C. 22/1) towards margins, heavy spotting at throat brown. Flowering from May 9, 1959. [972]

SPOONBILL. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) **H.C.** May 11, 1959. A deciduous azalea. Plant 4 feet high, 4 feet spread, vigorous, compact habit, very free-flowering; leaves $3\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches wide, medium green. Flower truss $5\frac{1}{2}$ inches diameter, $3\frac{1}{2}$ inches deep, lax, dome-shaped, eight to twelve flowers per truss; corolla $2\frac{3}{4}$ inches diameter, $2\frac{1}{4}$ inches long, funnel-shaped, margins waved, white, flushed Carmine Rose (H.C.C. 621/2) at tips of petals, spotting on upper petal at throat yellow. Flowering from May 7, 1959. [778]

WYE. (Raised and sent by The Royal Horticultural Society's Gardens.) **H.C.** May 11, 1959. A deciduous azalea. Plant $4\frac{1}{2}$ feet high, $4\frac{1}{2}$ feet spread, vigorous, fairly compact habit, very free-flowering; leaves 4 inches long, $1\frac{1}{2}$ inches wide, light to medium green. Flower truss 6 inches diameter, 6 inches deep, compact, globular, ten to fourteen

flowers per truss; corolla $3\frac{1}{4}$ inches diameter, $2\frac{1}{2}$ inches long, fully expanded funnel-shaped, margins waved and frilled, a shade of Chrome Yellow (H.C.C. between 605 and 605/1), slightly flushed Carmine Rose (H.C.C. 621/1) at margins, heavy spotting on upper petal at throat orange. Flowering from May 7, 1959. [309]

An award was also made to the following rhododendron growing in The Royal Horticultural Society's collection of plants at Wisley.

CAM. (Raised at The Royal Horticultural Society's Gardens.) **A.M.** May 21, 1959. A deciduous azalea. Plant 6 feet high, 4 feet spread, vigorous, fairly compact habit, free-flowering; leaves $4\frac{1}{4}$ inches long, $1\frac{1}{2}$ inches wide, medium green. Flower truss $5\frac{1}{4}$ inches diameter, $5\frac{1}{4}$ inches deep, very compact, globular, sixteen to twenty flowers per truss; corolla $3\frac{1}{8}$ inches diameter, $2\frac{1}{8}$ inches long, semi-double, fully expanded funnel-shaped, margins much waved, Neyron Rose (H.C.C. 623/3) gradually deepening through Neyron Rose (H.C.C. 623/2) to Neyron Rose (H.C.C. 623/1) at margins, blotch on upper petal at throat golden yellow.

RHODODENDRON AND CAMELLIA COMMITTEE FOR 1959

CHAIRMAN

SAVILL, SIR ERIC H., K.C.V.O., C.B.E., M.C., M.A., V.M.H.,
The Garden House, The Great Park, Windsor, Berks.

VICE-CHAIRMEN

ABERCONWAY, THE LORD, Bodnant, Tal-y-Cafn, Denbighshire,
N. Wales.

DIGBY, COL. THE LORD, D.S.O., M.C., T.D., V.M.H., Cerne
Abbey, Dorchester, Dorset.

LODER, SIR GILES, Bt., Leonardslee, Horsham, Sussex.

BAKER, H. L. P., Wayford Manor, Crewkerne, Somerset.

BOLITHO, LIEUT.-COL. SIR EDWARD, K.B.E., D.S.O., Trengwainton,
Heamoor S.O., Penzance, Cornwall.

CAMPBELL, SIR GEORGE, Bt., Crarae Lodge, Inverary, Argyll,
Scotland.

CONGREVE, AMBROSE, Winkfield Manor, Ascot, Berks.

COX, E. H. M., Glendoick, Glencarse, Perthshire.

COWAN, DR., J. M., C.B.E., M.A., F.L.S., F.R.S.E., V.M.H.,
Inverewe House, Poolewe, Ross-shire.

ELPHINSTONE, THE LORD, Drumkilbo, nr. Meigle, Perthshire.

FINDLAY, T. H., M.V.O., Gardener's Cottage, Mizel Hill, The
Great Park, Windsor, Berks.

FLETCHER, H. R., Ph.D., D.Sc., F.R.S.E., V.M.H., Royal Botanic
Garden, Edinburgh, 3.

FROMOW, A. S., O.B.E., The Hedges, Windlesham, Surrey.

GIBSON, A. C., Glenarn, Rhu, Dumbartonshire.

HARDY, MAJOR A. E., Sandling Park, Hythe, Kent.

HILLIER, H. G., F.L.S., V.M.H., c/o Messrs. Hillier & Sons,
Winchester, Hants.

INGRAM, CAPT. COLLINGWOOD, F.L.S., V.M.H., The Grange,
Benenden, Cranbrook, Kent.

LODER, LIEUT.-COL. GILES H., M.C., Dencombe, Handcross,
Sussex.

NOBLE, MICHAEL A. C., M.P., Strone, Cairndow, Argyll, Scotland.

PINCKNEY, G. H., c/o Messrs. John Waterer, Sons & Crisp Ltd.,
Bagshot, Surrey.

PUDDLE, C. E., The Gardens, Bodnant, Tal-y-Cafn, Denbighshire,
N. Wales.

ROTHSCHILD, E. DE, Inchmery House, Exbury, nr. Southampton.

RUSSELL, J. L., V.M.H., Richmond Nurseries, Windlesham,
Surrey.

SLOCOCK, O. C. A., Goldsworth Nursery, Woking, Surrey.

STAIR, THE EARL OF, K.T., D.S.O., V.M.H., Lochinch Castle,
Stranraer, Wigtownshire.

STEVENSON, MRS. R. M., Tower Court, Ascot, Berks.

STREET, FREDERICK, Heathermead Nursery, West End, nr.
Woking, Surrey.

WATERER, G. D. "Hamons", Ambleside Road, Lightwater,
Surrey.

ADAMS, R. E., R.H.S. Office (*Secretary*).

INDEX

Figures in Clarendon refer to Illustrations.

An asterisk denotes award after trial at Wisley. (a) denotes Azalea.

(az) denotes azaleodendron.

In order to save space neither the *Camellia* varieties at Longwood, which are listed alphabetically on pages 124–127, nor the synonyms of the *Camellia japonica* varieties on pages 139–163 have been included in the Index.

- Aberconway, Lord, in A Symposium on Aims in breeding Rhododendrons including Azaleas, 19–21
- Adams, Robert E., on *Camellia* Competition, April 7 and 8, 1959...**36**, 133–7
- American Rhododendron Society Test Garden, The, by J. Harold Clarke, 1–4, 13–18
- Awards to *Camellias* and Rhododendrons, 1959...162–7
- Azaleas, Evergreen, A Remarkable Display of in 1873, by Allan G. Langdon, **18**, 99–100
- Old, Pruning of, by Anne Noble, 100–1
- Bashall, Cynthia, on A Trip to See *Camellia granthamiana*, 129–31
- Breeding Rhododendrons including Azaleas, A Symposium on Aims in, 19–41
- Caerhays *Camellias* and Shrubs, by Julian Williams, 107–14
- Camellia* Competition, April 7 and 8, 1959, by Robert E. Adams, **36**, 133–7
- Cornish Snow, 116, 137
- granthamiana*, A Trip to See, by Cynthia Bashall, 129–31
- japonica*, **30**, 103, 117, 118, 120
- Adolphe Audusson, 116, 133, 139
- Alba Plena, 104, 120, 140
- Alba Queen, 122
- Alba Simplex, 116, 132, 140
- Albino Botti, 104
- Altheaeflora, 104, 125, 134, 136, 141
- Anemonaeflora, 120, 122, 142
- Apple Blossom, 142
- Aranian, **32**
- Arejishi, 116, 120, 121, 128, 143
- Aspasia, 119
- Aspasia Macarthur, **26**, 119, 122
- Augusto L. Gouveia Pinto, 103, 104, 135, 137
- Berenice Boddy, 122
- C. M. Hovey, 143
- C. M. Wilson, 134, 135
- Caprice, 125
- Cassetti, 125
- Claudia Phelps, 134
- Compton's Brow, 134
- Coquettii, 144
- Contessa Lavinia Maggi, 104, 135, 144
- Camellia japonica* D. Jane Andresen, 104
- Daybreak, 125
- Débutante, 121, 122
- Descriptions and History of Thirty-nine Popular Varieties, by Charles Puddle and Francis Hanger, 139–61
- Devonia, 116, 132, 145
- Diddy Mealing, 122
- Donckelarii, 104, 133, 145
- Donna Herzelia de Freitas Magalhaes, 104
- Du Puy, 125
- Duarte Oliveira, 104
- Elegans, 134, 146
- Elizabeth Boardman, 125
- Etna, 124
- Excelsa, 133
- Fimbriata, 120
- Fimbriata Alba, 104
- Flame, 122
- Frank Gibson, 133
- Frau Minna Seidel, 135, 146
- Fred Sander, 124, 147
- Frederici, 104
- Fulgens, 133
- Gauntletti, 121, 134
- Gigantea, 134
- Gloire de Nantes, 115, 133, 149
- Haku-Rakuten, 134
- Hana-Tachibana, 125
- Hatsu-Zakura, 133, 149
- Heckla, 124, 128
- Helen Sharp, 104
- Helenor, 120, 122
- Henri Favre, 125
- Herme, 125
- High Hat, 122
- Hi-No-Marui, 125
- Imbricata, 150
- Imbricata Alba, 135
- Juno, 132, 136
- Jupiter, 132, 136, 150
- Kelvingtoniana, 104, 116, 151
- Kimberley, 132, 152
- Lady Clare, 118, 121, 125, 133, 135, 152
- Lady de Saumarez, 153
- Lady Hume's Blush, 104, 120, 125
- Lady Loch, 122
- Lady McCullough, 137

- Camellia japonica* Lady St. Clair, 120
 Lady Vansittart, 153
 Lady Vere de Vere, 134
 Latifolia, 154
 Look-away, 119
 Lotus, 125
 Magnoliaeflora, 104, 116, 121, 124,
 133, 154
 Margherita Coleoni, 116, 137
 Maria Morren, 31
 Mathotiana, 103, 104, 135, 136, 155
 Mathotiana Alba, 156
 Mathotiana Rosea, 156
 Mercury, 125, 134, 156
 Mikado, 135, 137
 Mrs. Fred Sanders, 125
 Mrs. William Thompson, 124
 Mutabilis, 104
 Nagasaki, 157
 Nigra, 134
 Nike nika, 120
 Nobilissima, 115, 137, 157
 Old Port, 124
 Peachblossom, 158
 Portuense, 22, 104, 105
 Preston Rose, 158
 R. L. Wheeler, **A.M.** 1959...20, 134,
 135, 162
 Red Cardinal, 133
 Reine des Fleurs, 104
 Rubescens, Major, **A.M.** 1959...21,
 159, 162
 St. André, 124
 Saturnia, 136
 Saudade de Martins Branco, 104
 Shiro-botan, 116
 Silva, 132, 133
 Souvenir de Bahuaud-Litou, 135, 160
 Taroan, 116
 The Czar, 121
 Tricolor, 160
 Ville de Nantes, 161
 Vosper's Rose, 28, 123
 Wabisuke, 33, 116
 White Hibiscus, 122
 White Swan, 133
 Yuki-botan, 122
 Notes, 138
reticulata, 35, 104, 105, 112, 125, 136,
 137
 Captain Rawes, 103, 105, 116, 121
 Chang's Temple, 126
 Lion Head, 126
 Mary Williams, 112
 Robert Fortune, 105
 Shot Silk, 126
 Tataohung, 136
saluenensis, 109, 111, 112, 136
 Salutation, 116, 122
sasanqua, 121, 125
 Apple Blossom, 125
 Cleopatra, 126
Camellia sasanqua Fukuzutsumi, 115, 117
 Jaune, 104
 Maiden's Blush, 126
 Narumi-gata, 115
 Plantation Pink, 29
 Showa-no-Jakae, 27
 Texas Star, 126
 × *williamsii* Caerhays, 111
 Charles Michael, 110, 111
 Coppelia, 125
 Donation, 34, 116, 118, 119, 121, 122,
 136
 First Flush, 115
 Golden Spangle, by H. G. Hillier,
 138
 Hiraethlyn, 115, 122, 136
 J. C. Williams, 109, 110, 115, 116,
 118, 122
 Mary Christian, 109, 110, 138
 Parkside, 136
 St. Ewe, 110, 111, 136
 November Pink, 110, 111
Camellias and Shrubs, Caerhays, by Julian
 Williams, 107-14
 at Longwood Gardens, Kennett Square,
 Pennsylvania, by Donald Huttleston,
 30-2, 124-8
 at Underway, West Porlock, by Norman
 Hadden, 33-5, 115-6
 in New Zealand, by T. Durrant, 26-9,
 117-23
 Clarke, Harold J., on The American
 Rhododendron Society Test Garden,
 1-4, 13-18
 Collingwood Ingram, Capt., in a Sym-
 posium on Aims in Breeding Rhodo-
 dendrons including Azaleas, 28
 Committee for 1959, Rhododendron and
 Camellia, 168-9
 Cook, W. Douglas, on Rhododendrons in
 New Zealand, 11-14, 54-9
 Davidian, H. H., on Rhododendrons in the
 Royal Botanic Garden, Edinburgh,
 Part II, 9-10, 42-53
 de Rothschild, Edmund, in A Symposium
 on Aims in Breeding Rhododendrons
 including Azaleas, 29-31
 Dunleath, Lady Grace, on *R. dalhousiae*
 at Ballywater Park, C. Down, 15,
 99
 Druecker, John S., on The Propagation of
 Rhododendrons by Budding, 69-70
 Durrant, T., on Camellias in New Zealand,
 26-9, 117-23
Emmenopterys henryi, 113
 Foreword, by Sir Eric Savill, vii-viii
 Frisbie, Leonard F., on 11th Annual
 Tacoma Rhododendron Show, 96-8
 Gibson, A. C., on Glenarn, Rhododen-
 drons in 1959...9-12
 Glenarn, Rhododendrons in 1959, by
 A. C. Gibson, 9-12

- Graham, George, on *R. ponticum* as an epiphyte, 101-2
- Hadden, Norman, on Camellias at Underway, West Porlock, 33-5, 115-16
- Hanger, F. E. W., in A Symposium on Aims in Breeding Rhododendrons including Azaleas, 21-3
- on Rhododendron Problems Answered, A Beginner's Guide, 60-8
- Hanger, Francis, and Charles Puddle, on Descriptions and History of Thirty-nine Popular Camellia japonica varieties, 139-61
- Harrison, Maj.-Gen. E. G. W. W., in A Symposium on Aims in Breeding Rhododendrons including Azaleas, 23-6
- Hillier, H. G., on Camellia williamsii Golden Spangle, 138
- Horlick, Col. Sir James, in A Symposium on Aims in Breeding Rhododendrons including Azaleas, 26-7
- Huttleston, Donald, on Camellias at Longwood Gardens, Kennett Square, Pennsylvania, 30-2, 124-8
- Langdon, Allan G., on A Remarkable Display of Evergreen Azaleas in 1873 ...18, 99-100
- Lanning, Roper on The Rhododendron Show, May 5 and 6, 1959...77-90
- Loder, Giles, on A Visit to Portugal, 22-5, 104-6
- Madison, Harry R., on The Seattle Chapter (American Rhododendron Society) 1959 Rhododendron Show, 91-5
- Magnolia campbelli, 121
- denudata, 121
- sargentiana robusta, 113, 121
- soulangiana Lennei, 121
- sprengeri diva, 113
- stellata, 121
- × veitchii, 121
- Noble, Anne, on Pruning of Old Azaleas, 100-1
- Michael, in A Symposium on Aims in Breeding Rhododendrons including Azaleas, 29
- Portugal, A Visit to, by Sir Giles Loder, 22-5, 104-6
- Propagation of Rhododendrons by Budding, The, by John S. Druecker, 69-70
- Puddle, Charles, and Francis Hanger, on Descriptions and History of Thirty-nine Popular Camellia japonica varieties, 139-61
- Quercus cleistocarpa, 113
- Rhododendron A. Bedford, 65
- aberconwayi, 43
- (a) Addy Wery, 89
- Adriaan Koster, 22
- Ailsa Jean, 75
- Rhododendron Albert, 92
- (a) albrechtii, *frontispiece*, 71, 74
- Alice, 93
- (a) Alice, 78
- (Alice × auriculatum) × Mrs. Donald Graham, 94
- (a) Alice de Stuers, **A.M.*** 1959... 164
- Alison Johnstone, 24
- Alix, 74
- ambiguum, 21, 86
- amesiae, 20
- Androcles, 74
- aperantum, 19, 83
- (a) arborescens, 44
- arborescens, 11, 19, 20, 26, 33, 49, 58, 71, 72, 74, 80, 104
- album, 71
- argipeplum, 11
- argyrophyllum, 80
- Aries, 33
- arizelum, 90
- artosquameum, 86
- augustinii, 17, 20, 40, 80, 85
- × Blue Tit, 24
- auriculatum, 28, 34, 38, 75
- Azamia, 36
- B. de Bruin, 65
- Bagshot Sands, 36
- baileyi, 20, 85
- barbatum, 11, 19, 27, 64, 66, 67, 71, 72
- × discolor, 27
- Barclay × williamsianum, 24
- Bartia, 74
- basilicum, 75, 90
- batemanni, 34
- bauhiniiflorum, 21, 86
- beanianum, 73
- Beaulieu, 87
- Beauty of Littleworth, 87
- Beefeater, **F.C.C.** 1959...22, 162
- Betty Wormald, 77
- Blue Danube, **H.C.*** 1959...166
- Blue Diamond, 20
- Blue Ensign, **A.M.*** 1959...164
- Blue Peter, 65, 93
- Blue Tit, 20, 24
- Bluebird, 20
- Boadicea, 74
- Bodnant Yellow, 87
- Bonfire, 89
- Bow Bells, 92, 97
- Britannia, 65
- × Tally Ho, 94
- (az) Broughtonii Aureum, 93
- bullatum, 84
- bureavii, 42, 75, 79, 83, 90
- Burgundy, 70
- burmanicum, 29
- × dalhousiae, 108
- Butterfly, 93
- Buzzard, 77

- Rhododendron caeruleum album*, 86
callimorphum, 83
calophytum, 17, 20, 71, 73, 74
calostrotum, 20, 49, 78, 85
caloxanthum, 20, 83
 (a) Cam, **A.M.*** 1959...167
campanulatum, 81
campylocarpum, 20, 27, 79, 83
 elatum, 27
 × *irroratum*, 24
campylogynum, 20
 myrtilloides, 47
camtschaticum, 48
Carita, 88
Carmen, 97
carneum, 76
carolinianum album, 86, 97
catawbiense album × *Fabia*, 94
cerasinum, 19, 86
chaetomallum F. 25601, **A.M.** 1959...
 17, 163
Chaffinch, 77, 89
chameunum, 85
charitopes, 84
chartophyllum, 86
chasmanthum, 85
chlorops × *Hawk*, 35
Choremia, 73, 74, 75
chrysanthum, 23
chryseum, 21, 78, 85, 97
chrysodoron, 52
Chrysomanicum, 75
 ciliatum, 11, 29
 ciliicalyx, 52
 Cilpinense, 33, 75
cinnabarinum, 26, 81
 roylei, 20, 43, 81
Cinnkeys, 89
 (a) Colyer, **A.M.*** 1959...164
Competition, March 24 and 25, 1959,
 by Patrick M. Synge, 71-6
 (a) Comtesse de Flandres, 100
concatenans, 24, 43, 79
concinnum, 20, 86
Coreta, 87, 88
Cornish Cross, 40, 87, 89
 × *Kewense*, 88
Corona, 93
 (a) *Coronata*, 100
Coronation Day, 87
coryanum, 79, 80
coryphaeum, 11, 75, 90
Countess of Derby, 92
Cranbourne, 32
crassum, 50
cremastum, 20
Crest, 30, 31, 88
cubittii, 51
cuneatum, 20
cyanocarpum, 11
Cynthia, 14, 77
dalhousiae, 15, 51, 82, 99
Rhododendron dalhousiae, at Ballywater
 Park, Co. Down, by Grace, Lady
 Dunleath, 15, 99
Damaris, 25
dasycladum, 11, 83
dasypetalum, 49
dauricum, 34
 sempervirens, 43
David, 70, 87
davidii, 73
 davidsonianum, 21, 86
decorum, 78, 79, 82
delavayi, 52
diaprepes, 34, 37, 38
 gargantua, 37
dichroanthum, 79
Dido, 32
 × *Goshawk*, 33
 × *Grosclaude*, 32
 × *Helen Webster*, 33
 × *Sarita Loder*, 33
 × *Sunrise*, 33
didymum, 19
Dr. Stocker × *lacteum*, 24
Dormouse, 91
 (a) *Duchess Adelaide de Nassau*, 100
 (a) *Duke of Nassau*, 100
Earl of Athlone, 70, 78, 97
Easter Bonnet, 83
eclectum, 11, 72
 brachyanthum, 73
Edgar Stead, 59
edgeworthii, 76
Electra, 36, 87
Elizabeth, 33, 92
elliottii, 19, 22, 29, 49
eriogynum, 19, 22, 34, 52
eritimum, 71, 72
erythrocalyx, 11
euchaites, 27, 79, 83
Eureka Maid, 92
exasperatum, 75
facetum, 19
Fair Maiden, 88
falconeri, 9, 11, 51, 75, 78, 80, 81
Faltho, 74
fargesii, 11, 72
fastigiatum, 78
fastuosum flore pleno, 40
ferrugineum, 48
fictolacteam, 79, 81
 (a) *Fidelio*, 78
Fine Feathers, 75
Fittra, 78
 (a) *Flag of Truce*, 100
 (a) *Flamingo*, 27
Fleece, **A.M.** 1959...8, 162
floccigerum, 11
formosum, 53
forrestii repens, 11, 19, 33, 46
fortunei, 30, 69, 79, 82, 98
Fragrantissimum, 58, 89

- Rhododendron fulvum, 75, 90
 Fusilier, 22, 35
 galactinum, 42
 Gem, 88
 (a) General Wavell, **A.M.** 1959...7, 163
 Geoffrey Millais, 87
 Gibraltar, 87, 88
 (a) Gladstonesii Formosa, 100
 giganteum, 51
 glaucophyllum, 84
 tubiforme, 46
 glischrum, 81
 Glory of Athlone, 27
 Gold Crest, 87
 Goldsworth Orange, **A.M.*** 1959...164
 Goldsworth Yellow, 92
 grande, 11, 50, 90
 Grenadine, 87, 89
 Gretia, 88
 griersonianum, 19, 22, 24, 27, 29, 35,
 36, 51
 griffithianum, 20, 28, 51, 79, 82
 Grilse, 32
 (a) Guy Yerkes, 93
 Gwilt King, 35
 Gypsy King, 88
 habrotrichum, 78, 79, 80
 haemaleum, 19, 83
 haematodes, 11, 19, 79
 hanceanum nanum, 45
 (a) Hatsu-giri, 78
 Hawk, 87, 89
 Haze, 74
 Helena, 87
 heptamerum, 11
 (a) Hi No Mayo, 77, 78, 97
 hippophaeoides, 21, 49
 Hon. Jean Marie de Montague, 97
 hookeri, 73
 hormophorum, 86
 (a) Hotspur, 77
 hyperythrum, 30, 33
 Ibex, 89
 Idealist, 87, 88, 97
 Ilam Alarm, 59
 Ilam Apricot, 59
 Ilam Canary, 59
 Ilam Cornubia, 59
 Ilam Orange, 59
 Ilam Violet, 59
 (a) Ima-Shojo, **A.M.*** 1959...165
 impeditum, 24, 45, 78, 85, 91
 imperator, 45
 (a) indicum balsaminaeflorum, 61
 intricatum, 47, 97
 Irene Stead, 59
 irroratum, 20, 24, 71, 72
 Isabella, 28
 iteopyllum, 52
 (a) Iveryana, 100
 Ivery's Scarlet, 58
 J. H. Van Nes, 87
- Rhododendron Jalisco, 32
 Jan Dekens, 70
 japonicum, 42
 Jean Marie de Montagu, 69
 John Holms, 11
 John Marchand, 28
 johnstoneanum, 74, 76, 78, 82
 (a) Juliana, 78
 (a) kaempferi, 84
 × Malvatica, 97
 Kaka, 59
 (a) Kathleen, 89
 Kiev, 87
 kingianum, 24
 Koko, 59
 (a) Kure No Yuki, 77
 Kyawi, 50
 lacteum, 24, 26, 35, 113
 Lady Alice Fitzwilliam, 78
 Lady Chamberlain, 24, 78
 Lady Linlithgow, 74
 Lady Rosebery, 89
 Lady Stair, 35
 lanatum, 20, 79, 81, 90
 lanigerum, 72
 lapponicum, 48
 laxiflorum, 79, 82
 Leonardslee Gem, 87
 (a) Leonie van Houtte, 100
 lepidostylum, 46
 lepidotum, 85
 Letty Edwards, 77, 78, 87
 leucaspis, 11, 48, 73
 lindleyi, 52, 82
 × taggianum, 88
 litiense, 22, 80
 lochae, 52
 Loderi, 27, 40, 87
 King George, 78, 87, 88, 97
 Pink Coral, 88
 Pink Diamond, 78, 88
 × (griffithianum × fortunei), 88
 Pink Glamour, 87
 Pink Gleam, 88
 Princess Marina, 88
 × Sarita Loder, 87
 Venus, 78, 88
 × wardii, 87
 Loder's White, 27, 78, 87
 Loki, 74
 Lord Stair, 35
 (a) Louise Gable, 94
 ludlowii, 47
 Luscombei, 89
 lutescens, 11, 20, 43
 (a) luteum, 84
 macabeanum, 12, 71, 72, 74, 90
 (a) Madame Ambrose Verschaffelt, 100
 Madame de Bruin, 77
 Madame Fr. J. Chauvin, 97
 (a) Mlle. Marie van Houtte, 100
 maddenii, 50

- Rhododendron (a) Magnificans, 100
 magnificum, 51
 Major George Ritter, 70
 mallotum, 11
 Manglesii, 87
 Matador, 87
 meddianum, 11, 73
 (a) Medway, **A.M.*** 1959...165
 megacalyx, 51
 megeratum, 11
 (a) Melford Glory, 98
 microleucum, 45
 Mrs. Anthony Waterer, 65
 Mrs. Furnival, 65, 70, 91, 93
 Mrs. G. W. Leak, 65, 75, 78, 87
 Mrs. Henry Shilson, 74
 (a) Mrs. Oliver Slocock, 78
 Mrs. Tom Agnew, 69
 Moonshine, 22
 morii, 20
 Morvah, **F.C.C.** 1959...6, 163
 Mother of Pearl, 65, 77, 93
 (a) Mother's Day, **A.M.*** 1959...165
 Mount Everest, 65
 moupinense, 11, 28, 37
 × leucaspis, 11
 Mozari, 36
 (a) mucronatum, 92
 album, 94, 97
 muliense, 21
 myrtilloides, 20
 Naomi, 78, 87, 88
 (a) Narcissiflora, 92
 Nausicaa, 74
 neriiflorum, 44, 79
 (a) New Morn, 97
 nitens, 45
 nivale, 48
 niveum, 80
 nobile, 34
 × nobleanum, 11, 34
 (a) Norma, **A.M.*** 1959...165
 Notes, 99-102
 nuttallii, 49, 57, 82
 × lindleyi, 57
 (a) obtusum amoenum, 77, 78
 japonicum, 93
 Kokinshita, 61
 macrostemon, 61
 (a) occidentale, 44, 97, 98
 (a) Orange Beauty, 78
 orbiculare, 26, 42, 78, 79, 80, 82
 oreodoxa, 11, 72
 oreotrephes, 20, 24
 pachytrichum, 72
 (a) Palestina, 77, 78
 parryae, 49
 Peace, 24
 pemakoense, 47
 Penjerrick, 87, 88
 pentaphyllum, 74
 Perseverance, 88, 89
 Rhododendron (a) Persil, 94
 phaeochrysum, 11
 (a) Pink Cloud, 97
 Pink Pearl, 87, 92
 planetum, 11, 71, 73
 pocophorum, 11, 73
 Polar Bear, 37, 38
 polyandrum, 76, 82
 polylepis, 20
 ponticum, 14, 37, 64, 69, 101-2
 as an epiphyte, by George Graham,
 101-2
 Portia, 75
 × barbatum, 75
 × chaetomallum, 75
 × praecox, 11, 34, 37
 praevernum, 71, 72
 (a) Prince of Orange, 100
 (a) Prins Bernhard, **H.C.*** 1959...166
 Problems Answered, A Beginner's
 Guide, by F. E. W. Hanger, 60-8
 (a) prunifolium, 60
 pseudoyanthinum, 20, 86
 pumilum, 46
 puralbum, 42
 Purple Splendour, 65, 70
 (a) Purple Triumph, **H.C.*** 1959...166
 Queen Mary, 92
 Queen of Hearts, 87
 Queen Wilhelmina, 88
 H. Whitner, 88
 R. W. Rye, 35
 racemosum, 47, 73
 radicans, 48
 Rainbow, 70
 ravum, 20
 Red Cap, 36
 Red Glow, 59, 88, 89
 Redwing, 74
 reginaldii, 73
 (a) reticulatum, 84
 Review Order, 35
 rex, 27, 90
 rhabdotum, 10, 53
 Rima, 36
 ririei, 71
 × niveum, 75
 Robin Red Breast, 88
 Romarez, 36
 Rose Mangles, 76
 (a) Rosebud, 91
 Rosenkavalier, **A.M.** 1959...5, 22, 163
 (a) roseum, 84
 roxieanum, 20, 79, 83
 Royal Purple, 77
 Ruby Bowman, 69
 russatum, 20, 45, 85
 St. Keverne, 87
 saluenense, 20, 85
 Sappho, 65
 sargentianum, 48, 84
 (a) schlippenbachii, 84

- Rhododendron scintillans*, 46
 Seagull, 74
 (a) *Sekidera*, 93
selense, 11, 83
shepherdii, 11
Shilsonii, 10, 27, 74, 75
 Show, 11th Annual Tacoma, by Leonard F. Frisbie, 96-8
 May 5 and 6, 1959, The, by Lanning Roper, 77-90
 1959, The Seattle Chapter (American *Rhododendron* Society), by Harry R. Madison, 91-5
 (a) *sinense*, 100
sinogrande, 50, 75, 90
sinonuttalii, 13
 Sir Charles Lemon, 90
 Sir Robert Peel, 58
smirnowii, 86
Sonata, **H.C.*** 1959...166
souliei, 30, 33, 113
 × *abernconwayi*, 88
Souvenir of W. C. Slocock, 93
sperabile, 28
 weishiense, 11
sphaeroblastum, 79, 83
spiciferum, 85
spinuliferum, 74, 85
 (a) *Spoonbill*, **H.C.*** 1959...166
stewartianum, 11
stictophyllum, 46
strilligosum, 71, 72
Suave, 87
sulphureum, 73
Sunkist, 88
Sunrise, 88
supranubium, 52
Susan, 87
sutchuenense, 11, 42, 71, 72, 73
 geraldi, 17
sylvaticum, 72
 Tally Ho, 22
 (a) *Tay*, **A.M.*** 1959...165
tephropeplum, 46, 81
Tessa, 37
thayerianum, 42
thomsonii, 9, 10, 19, 26, 27, 64, 79
Thunderstorm, 65
Tosca, **A.M.** 1959...163
Trewithen Orange, 24
trichocladum, 42
trichostomum ledoides, 84
Rhododendron trichostomum radinum, 94
 Trilby, 93
tsangpoense, 78
 pruniflorum, 84
tsariense, 47
Tyermannii, 89
uvarifolium, 44
valentinianum, 43, 74
 (a) *vaseyi*, 78, 84
venator, 42
vernicosum, 79, 82
 (a) *viscosum*, 44, 61
 (a) *Vuyk's Scarlet*, **A.M.*** 1959...165
wardii, 20, 28, 30, 35, 44, 79, 83
 Ellestea, **A.M.** 1959...163, 16
wasonii, 20, 42, 90
watsonii, 42
 (a) *Wendy*, 91
 (a) *White Squall*, 92
williamsianum, 23, 26, 30, 33, 47, 83
wiltonii, 9, 42
Winkfield, 32
 (a) *Wye*, **H.C.*** 1959...166
xanthocodon, 80, 81
yakusimanum, 20, 22, 30, 33, 43
yunnanense, 20, 79, 86, 93
Yvonne Dawn, 87, 88
Rhododendrons in New Zealand, by W. Douglas Cook, 11-14, 54-9
 in the Royal Botanic Garden, Edinburgh, Part II, by H. H. Davidian, 9-10, 42-53
Savill, Sir Eric, in A Symposium on Aims in Breeding *Rhododendrons* including *Azaleas*, 31-3
 on Foreword, vii. viii
Stair, The Earl of, in A Symposium on Aims in Breeding *Rhododendrons* including *Azaleas*, 33-6
Stevenson, R. M., in A Symposium on Aims in Breeding *Rhododendrons* including *Azaleas*, 36-9
 Symposium on Aims in Breeding *Rhododendrons* including *Azaleas*, 19-41
Synge, Patrick M., on *Rhododendron* Competition, March 24 and 25, 1959...71-6
Waterer, Donald A., in A Symposium on Aims in Breeding *Rhododendrons* including *Azaleas*, 39-41
Williams, Julian, on *Caerhays Camellias* and Shrubs, 107-14



BY APPOINTMENT
TO HER MAJESTY THE QUEEN
GARDEN CONTRACTORS AND NURSERYMEN

JOHN WATERER, SONS & CRISP, LTD. THE FLORAL MILE, TWYFORD, BERKS

Telephone: WARGRAVE 224 (3 lines)

Shrub Nurseries BAGSHOT, SURREY

Telephone: BAGSHOT 2288/2289

RHODODENDRONS

A very large selection of varieties available, from 20/- each.

Specially recommended are the following Yellow-flowered varieties:

Letty Edwards. F.C.C. 1948. Well-shaped trusses of primrose yellow flowers, good habit
plants 1½–2 ft. 30/-; 2–2½ ft. 35/-

Mary Swaythling. Primrose-yellow flowers of good quality in dome-shaped trusses
plants 1½–2 ft. 27/6; 2–2½ ft. 32/6

Gladys var. Rose. Flowers pink in bud, opening pale yellow with a tinge of pink at edge of petals
plants 1½–2 ft. 30/-; 2–2½ ft. 35/-

AZALEAS

In addition to the best of the popular varieties, we offer a selection of the **NEW LARGE-FLOWERED GHENT AZALEAS**, which we consider are the *finest in the world*. A few of these are listed below:

Berry Rose. Large flowers of a pleasing Neyron rose colour, with an orange blotch on the upper petal.

Firefly. Compact trusses of fiery red flowers.

Golden Hind. Very large individual flowers in loose trusses. Indian yellow with an orange blotch.

Klondyke. Fairly large trusses of orange suffused salmon-red flowers.

Quaker Maid. Flowers white, suffused and edged carmine with a bright orange blotch. Trusses are compact and very long lasting.

Royal Ruby. Flowers of an intense nasturtium-red colour. Very effective in the garden.
Strong plants of the above: 15–18 in. 42/-; 1½–2 ft. 50/-

CAMELLIAS

We are able to offer the finest collection of Hardy Camellias in the Trade. The following is a selection of varieties of good Garden Merit:

Strong Pot-grown Plants

Berenice Boddy. Medium to large semi-double flowers, light pink in colour with deeper shading.
Vigorous upright growth each 50/-

Donckelarii. Medium to large semi-double flowers, red with variable white markings. Bushy growth.
each 21/-

Dr. Tinsley. Medium semi-double pale pink flowers with deeper shading towards the edges. Upright and compact in growth each 42/-

Furoan. Medium-sized single flowers of a delightful shade of salmon pink at edge of petals, passing to white in the centre. Good habit each 25/-

Joseph Pfingstl. Large, irregular, semi-double to paeony-formed flowers. Dark red with wavy outer petals, fluted in the centre. Sturdy and vigorous growth. each 50/-

Marian Mitchell. Large semi-double flowers of rich scarlet-red. Medium compact habit with upright growth. each 42/-

Descriptive Catalogue—post free—on request

Waterers

GOLDSWORTH RHODODENDRONS

have won the highest awards, including GOLD MEDALS—CHELSEA SHOW 1956, 1957, 1958 AND 1959; RHODODENDRON SHOW 1957

Our Catalogue of RHODODENDRONS, AZALEAS and CAMELLIAS

is the most comprehensive list of these choice and rare plants.

WRITE NOW FOR A COPY—POST FREE



W.C.SLOCOCK LTD.

WOKING

Telegram: "SLOCOCK, WOKING"

GOLDSWORTH NURSERIES

Telephones: 728, 729, 730 WOKING

Specialists in

RHODODENDRONS, AZALEAS and Hardy Shrubs

We probably grow more different Rhododendron species than any other member of the trade, and we have good stocks of hybrids also, including the newest.

Catalogues post free on request

G. REUTHE LTD.
NURSERIES, KESTON, KENT

Telephone: FARNBORO' (KENT) 52249

Rhododendron Nursery (where Azaleas and all lime-hating plants are grown) at Crown Point, Ightham, nr. Sevenoaks, Kent. Visitors desiring to see this nursery are advised to make an appointment beforehand. All correspondence, phone calls, etc., to our Keston address.

By Appointment Nurserymen and Seedsmen



to H.M. Queen Elizabeth the Queen Mother

HILLIER & SONS for TREES & SHRUBS

including

RHODODENDRONS and AZALEAS

Growers commercially of the greatest number of species and varieties hardy in the temperate regions

also Herbaceous and Alpine Plants • Roses (*including species and old-fashioned varieties*) • Fruit Trees • Bulbs

Please ask for those catalogues in which you are interested

(Tree and Shrub Catalogue price 1/6

Herbaceous Catalogue price 1/-; other lists free.)

WINCHESTER

JOIN THE AMERICAN CAMELLIA SOCIETY

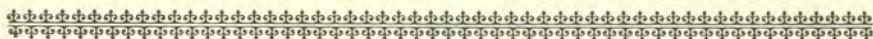
A membership in the American Camellia Society will bring you four issues of the *AMERICAN CAMELLIA QUARTERLY* and also *THE AMERICAN CAMELLIA YEARBOOK*. The Quarterly magazines are timely and interesting, with news of the Society, short articles and other features. The Yearbook, distributed near the end of each year, is an important library volume with pictures and colour plates. More than fifty articles cover information on culture, pest control, nomenclature, history, new varieties and other phases of camellia interest. New members may purchase earlier editions that are still available at 30/- each.

Membership : Annual—£2 3s. 0d.

Transmit "English" membership dues to :

G. H. Pinckney,
c/o John Waterer, Sons & Crisp Ltd.,
Twyford, Berks.

Cheques payable to G. H. Pinckney, A/c A.C.S., and
crossed Barclays Bank Ltd., Twyford, Berks.



SUNNINGDALE NURSERIES

"One of the most beautiful and interesting nurseries in the country"

We specialize in the best forms of species and the best of the new hybrids in Rhododendrons and Azaleas. We also have a large collection of old hybrids. Please pay us a visit in late May when nearly half a mile of Azaleas can be seen in bloom.

PRICE LIST FREE (1140 varieties)

In preparation: "The Manual of Rhododendrons" by James Russell.

We also publish:

"The Manual of Shrub Roses", second edition (revised 1959), by
G. S. Thomas 3/- post free c.w.o. (Free Price List)

"The Modern Florilegium" (reprinted 1958) by G. S. Thomas,
3/- post free c.w.o. (Free Price List)

Trees and Shrubs, Climbers and Conifers, Free Catalogue.

WINDLESHAM, SURREY

Tel. Ascot 96.
Established 1847.

1 mile west from Sunningdale Station, on the A30.

IMPORTANT BOOKS

from

THE LESLIE URQUHART PRESS Ltd.,
Plaw Hatch Hall, Sharpthorne, Sussex



THE RHODODENDRON VOLUME I

Edited by Beryl Leslie Urquhart

A superbly illustrated Monograph containing 18 exquisite original paintings executed in life-size by CARLOS VON RIEFEL, of Vienna (one of the leading botanical painters of the world), who has been specially commissioned for this work. The paintings are beautifully reproduced in exact facsimile and show in perfect and correct detail the flowers and foliage of outstanding species of the rhododendron.

Size 16 in. by 12 in. Printed on hand-made paper in 8-colour litho-offset with 36 pages of text and Map specially drawn to show the main collecting grounds in S.E. Asia.

The text includes botanical and ecological commentaries on each of the plates and an historical survey of the introduction of rhododendrons from Hooker's Himalayan expedition in 1849-1850, to the collectors of this century. Included also is a hitherto unpublished article by the late Frank Kingdon-Ward, specially written for this book shortly before his death in April 1958.

Price 105s. nett. Postage and packing 5s.

Requests for folio sets of the unbound plates at £3. 3. 0 per set should be addressed to Mr. J. Roberts, 98 St. Martin's Lane, London, W.C.2

"It is most unlikely, in these days of cheap colour-photography, mass colour reproduction and above all the diminishing number of fine craftsmen, that Flower Books of such superb quality will ever be produced again."—*Comment from a well-known Publisher.*



THE CAMELLIA

VOLUME I

by Beryl Leslie Urquhart

A Monograph containing 20 original life-size paintings by PAUL JONES and RAYMOND BOOTH superbly reproduced in exact facsimile colour; with historical introduction and botanical commentaries.

Size 18 in. by 13 in. Printed on hand-made paper in 8-colour litho-offset, with 40 pages of text. "A book to buy and treasure."—*The Gardeners' Chronicle.*

Price 84s. nett. Postage and packing 6s.

GERARD VAN SPAENDONCK

"Fleurs Dessinées d'Après Nature"

With English introduction and botanical notes by Wilfrid Blunt. Sixteen magnificent facsimile reproductions (21 in. by 14½ in.), in 8-colour litho-offset, taken from the very rare 1800 A.D. folio by Spaendonck, the only folio of his paintings which was ever issued. Spaendonck was, in the opinion of many experts, the greatest botanical painter of all time. Redouté was his pupil.

Price 84s. nett. Postage and packing 6s.



Requests for folio sets of unbound plates of the above books at £3. 3. 0 per set should be addressed to Mr. J. Roberts, 98 St. Martin's Lane, London, W.C.2

Published by

THE LESLIE URQUHART PRESS Ltd.,
Plaw Hatch Hall, Sharpthorne, Sussex

ESTABLISHED 1760

KNAP HILL NURSERY LTD.

(LATE ANTHONY WATERER)

WOKING · SURREY

AZALEAS

Our own strain of Knap Hill deciduous Azaleas is supreme.
We also offer all the best types of Azaleas including Mollis,
Mollis-Sinensis, Ghent, Rustica, Kurume, Malvatica, etc.

RHODODENDRONS

We offer a wide range of all the choicest varieties.

ORNAMENTAL FLOWERING TREES · SHRUBS
AND CLIMBERS · ROSES · CAMELLIAS
HERBACEOUS PLANTS · FRUIT TREES & BUSHES

CATALOGUES ON APPLICATION

Telephone and Telegrams: **BROOKWOOD 3192**

C. J. MARCHANT

KEEPER'S HILL NURSERY
STAPEHILL · WIMBORNE

FOR CHOICE TREES AND SHRUBS INCLUDING DWARF
RHODODENDRONS AND OVER NINETY VARIETIES OF
CAMELLIAS

GLENDICK GARDENS

PERTH

SCOTLAND

RHODODENDRONS, AZALEAS, CAMELLIAS

grown in the cold climate of East Perthshire

All plants are raised in our nursery and all Rhododendrons and Azaleas spend at least one season in the open unless otherwise specified.

List sent post free on request

55 leading authorities offer the latest information on **CAMELLIA CULTURE**

Edited by E. C. TOURJÉ

Now—for the first time in one volume—

Fifty-five leading American camellia growers and researchers have collaborated to prepare the most recent and inclusive volume on the culture of this popular plant. Among the topics thoroughly discussed are landscape design, planting, care, propagation, diseases and pests and their control. The chapter on radiation genetics is the most complete ever written for the gardener. Magnificently illustrated with three full-page colour plates and over 120 photographs and line drawings, this authoritative, practical book belongs on the reference shelf of all camellia growers.

80s. 6d.

ALSO

CAMELLIAS, KINDS AND CULTURE

H. HAROLD HUME

Chapters on the geography, botany and classification of the camellia make this an exceptionally exhaustive and useful book for admirers of this group of showy flowering plants. Included are detailed instructions for garden, greenhouse and pot culture, pruning and training.

45s. 6d.

AZALEAS AND CAMELLIAS

REVISED EDITION. H. HAROLD HUME

A compact and valuable guide to azaleas and camellias, describing the varieties best suited for differing uses or climates and giving directions for grafting, propagating, planting, and for pest and disease control.

19s.

Please write for Complete
Gardening Books Catalogue
to—



MACMILLAN • NEW YORK
10 SOUTH AUDLEY STREET LONDON, W. 1

CAMELLIAS

Over 100 varieties are grown, in pots, and under cold conditions for immediate planting in the garden.

AZALEAS

A wide range of Japanese Evergreen varieties and of Deciduous varieties, many in specimen size plants.

ORNAMENTAL TREES and SHRUBS

Our stocks include all the old favourites and new introductions of proved merit in Flowering and Evergreen Trees and Shrubs, Conifers, Climbing and Wall Plants, Roses, etc.

CATALOGUES

Our 1959/60 Tree and Shrub Catalogue of 64 pages lists these in detail, with illustrations in life-like colour, fully descriptive and including planting hints, plants for special soils and situations, etc., price 1/-.

*Price list of all the plants we have to offer, without illustrations,
sent on request.*

L. R. RUSSELL LTD.

RICHMOND NURSERIES, London Rd. (A30), Windlesham, Surrey

Phone : Ascot 780

Station : Sunningdale, S.R.

VARIETY

Gives added beauty and interest. Diversify your plantings with—

TREE PAEONIES

Superb shrubs, over 100 varieties, chiefly the beautiful Japanese semi-doubles.

NEW HYBRID LILIES

Including the fine Yellow and Pink trumpets.

ERYTHRONIUMS, TRILLIUMS, HARDY CYPRIPEDIUMS and a host of other enchanting, uncommon, plants and bulbs for garden and cool greenhouse. All splendid and easy, finest quality, reasonably priced, with novelty for added pleasure.

FREE CATALOGUES

G. B. RAWINSKY, HIGHLANDS NURSERY, FARNHAM SURREY

CAMELLIAS

*We specialize in Camellias of quality suitable for
outdoor planting as exhibited regularly at "The Hall"*

HASKINS BROS.

Coy Pond Nurseries, Bournemouth West, Hants.

"A masterly survey of the subject"

—THE TIMES *Lit. Supp.*

Azaleas

FREDERICK STREET

"I consider this to be one of the finest books I have ever come across dealing with one plant. It belongs both to literature and to science. While it contains in Part II all that one needs to know about species and varieties, soil and situation, propagation, hybridisation and so forth, it contains in Part I a story which is extraordinarily gripping and exciting concerning the steps which, throughout centuries, have produced the azaleas we know to-day. There are many fine illustrations, both plain and coloured." HOWARD SPRING, *Country Life*. 50s. net.

CASSELL

PENGUIN HANDBOOKS

For January Publication

THE COOL GREENHOUSE

By G. W. ROBINSON, *Curator of the University Botanic Garden, Oxford*. This useful handbook discusses the different types of greenhouse available, their heating and maintenance and the best plants to grow in a Cool Greenhouse.

HARDY HERBACEOUS PLANTS

 By LANNING ROPER

An unusual and discriminating book which describes not only a selection of the best plants available but also their placing in the garden, in herbaceous and mixed borders and their cultivation and propagation.

Both volumes are lavishly illustrated with over 100 photographs each. Price 6s. each, by post 7s.

Recently Published

ROCK GARDENS By E. B. ANDERSON, *late President, Alpine Garden Society* Fully illustrated. Price 5s., by post 5s. 9d.

'An admirable, practical and inexpensive book, written by an expert with fifty years' experience behind him.' V. Sackville-West in 'The Observer'. 'The third in the series of handbooks . . . and many will consider it the best so far'. 'Times Literary Supplement.'

ANNUAL AND BIENNIAL FLOWERS By A. P. BALFOUR, V.M.H.

An extra large volume with over 150 illustrations. Price 6s., by post 7s. 'This outstanding book . . . is, I consider, one of the best of its kind ever written. I only wish I could have had this valuable book over sixty years ago, when I first started to learn my annuals.' Fred Streeter in 'Books of the Month.'

ROSES By F. FAIRBROTHER, *President, The National Rose Society* 2nd Revised Edition. 5s., by post 5s. 9d.

For Spring Publication (Probably March)

LAWNS FOR GARDEN AND PLAYING FIELD

By R. B. DAWSON, *Director, The Sports Turf Research Institute, St. Ives Research Station, Bingley, Yorks.*

Obtainable from THE SECRETARY
THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE, LONDON, S.W.1

Supplement to Elwes Monograph of the Genus *Lilium*

PART VIII

The Society will publish in the Spring of 1960 a new part of this beautiful and valuable work with 5 plates of lilies discovered since the previous parts were published, or not previously described. The plates, which will be reproduced life-size in 8-colour collotype by The Chiswick Press, are by Miss Margaret Stones and are of great beauty. The botanical part of the text is by Dr. W. B. Turrill, O.B.E., F.R.S., V.M.H., while notes have been added about each lily in cultivation. The five lilies featured in this part will be *L. henrici*, *L. mackliniae*, *L. michiganense*, *L. rubescens* and *L. sherriifiae*.

There is a Foreword by Sir Frederick Stern, who tells us about this noble work which it is a privilege to be able to continue.

Imperial Folio. Price £4 10s. 0d.; by post, £4 13s. 0d.

It is hoped that a very limited number of copies, hand-coloured in the same way as the previous Supplements, will also be available later and those interested should inform the Editor of the Society. The price of these copies will be 6 guineas.

The International Rhododendron Register. Price 25s. Postage and packing 1s. 6d. U.S.A. \$3.85.

Obtainable from THE SECRETARY
THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE, LONDON, S.W.1

R.H.S. PUBLICATIONS

Some suitable books for gifts

The Lily Year Book. 1960

Special Conference Number

This contains all the papers and discussions given at the Lily Conference as well as other features and also has six colour plates. An enlarged issue. 15s., by post 16s. 3d.

The Daffodil & Tulip Year Book. 1960

This is a full-length book illustrated in colour and black and white and contains a series of articles which should be of interest and help to all growing these plants. Their contributions range over many countries and their importance is not limited to the year in which they are published. 12s. 6d., by post 13s. 9d.

The Rhododendron Handbook 1956.

Two volumes. Part One deals with species and Part Two with hybrids.

Price 12s. 6d. each volume, by post 13s. 6d.

A Revision of the genus *Camellia*

By J. Robert Sealy

A standard botanical work on the genus.

Small Royal 4to. £3 10s. 0d., by post £3 13s. 0d.

Asiatic Magnolias in Cultivation

By G. H. Johnstone, O.B.E., V.M.H.

An invaluable horticultural and botanical work on the finest group of Magnolias for gardens in this country.

15 colour plates. £3 3s. 0d., by post £3 6s. 0d.

Snowdrops and Snowflakes

A study of the genera *Galanthus* and *Leucojum*

By Sir Frederick Stern, O.B.E., M.C., F.L.S., V.M.H.

Cr. 4to. £1 5s. 0d., by post £1 6s. 9d.

Obtainable from THE SECRETARY

THE ROYAL HORTICULTURAL SOCIETY

VINCENT SQUARE, LONDON, S.W. 1

