The cover features a central rectangular frame with decorative, arched top and bottom edges. The frame is surrounded by detailed botanical line drawings. At the top, there are clusters of small, bell-shaped flowers and a branch with small berries. On the left side, there are several large, five-petaled flowers on stems with serrated leaves. On the right side, there is a tall, slender spike of small flowers, a large flower with a prominent dark center, and another large flower with a dark center and radiating petals. At the bottom, there are more flowers, including a large, fluffy, spherical flower head and a large, five-petaled flower. The artist's initials 'GRK' are visible in the bottom left corner.

**TENTH
ANNIVERSARY
HANDBOOK**

Edited by
KAY N. SANECKI

THE HARDY PLANT SOCIETY

AIMS OF THE SOCIETY

THE aims of the Society are to further the culture and improvement of hardy herbaceous plants (excluding rock garden plants) and to stimulate interest in such plants both old and new.

MEMBERSHIP

THE yearly subscription (which includes the Society's *Bulletins* and *Newsletters* as published) is 12s. 6d. per year, or £1 for joint membership of man and wife. U.S.A. \$2.00. Life membership is £15. Membership also includes entry to any shows which the Society may hold. Social gatherings, meetings and outings are arranged, and many members open their gardens to other members of the Society during the summer.

Chairman

Miss R. B. POLE,
Lye End Nursery,
St. John's,
Woking,
Surrey.

Hon. Secretary

Miss B. WHITE,
10 St. Barnabas Road,
Emmer Green,
Reading,
Berks.

Hon. Treasurer

Mr. E. M. UPWARD,
14 Robin Hood Crescent,
Knaphill,
Woking,
Surrey.

Hon. Editor

Mrs. KAY N. SANECKI,
6 Cangel Close,
Boxmoor,
Hemel Hempstead,
Herts.

CONTENTS

| | | |
|---|--------------------------|----|
| FOREWORD | <i>F. P. Knight</i> | 4 |
| MISS R. B. POLE, OUR CHAIRMAN | | 7 |
| ALAN BLOOM, CHAIRMAN 1957-59 | | 8 |
| S. MILLAR GAULT, CHAIRMAN 1959-61 | | 10 |
| A MEMBER WRITES | | 12 |
| NOTES ON PLANT COLLECTING | <i>Paul Furse</i> | 13 |
| AMERICANS IN THE BORDER | <i>Elsbeth M. Harris</i> | 16 |
| HARDY PLANTS FROM SEED | <i>A. G. L. Hellyer</i> | 19 |
| SPOTS | <i>Alice M. Coats</i> | 21 |
| HEUCHERAS | <i>Alan Bloom</i> | 23 |
| DOUBLE PRIMROSES | <i>Margery Fish</i> | 26 |
| THE SPIRIT AND PHILOSOPHY OF JAPANESE GARDENING | <i>Peggy Kurata</i> | 29 |
| HARDY PERENNIALS IN FRANCE | <i>Serge Vadé</i> | 35 |
| BROWSING | <i>Denis Hardwicke</i> | 37 |
| HERBACEOUS PERENNIALS BETWEEN THE WARS | <i>Noël J. Prockter</i> | 39 |
| DIGITALIS | <i>Kay N. Sanecki</i> | 42 |
| CAMPANULAS | <i>Wendy V. Carlile</i> | 44 |
| THE STORY OF THE NURSERY | <i>Harold G. Hillier</i> | 46 |
| THE HARDY PLANT SOCIETY | | 50 |

FOREWORD

IT has become the fashion to produce commemorative books for very special occasions and those who thought of celebrating the tenth birthday of The Hardy Plant Society in this way are to be congratulated in producing this TENTH ANNIVERSARY HANDBOOK. What better birthday gift could the editor receive to share with the readers than the friendly contributions so ably written by such an authoritative team of writers, each an expert in his or her own field.

Hardy plants fill in the picture in our gardens and parks within the framework of trees and shrubs, hedges, lawns and paths. Gardening is ever changing, and we are indebted to those who are constantly concerned with improving plants with such valuable results.

I have had the good fortune to know the three Chairmen of the Society. Miss Pole is a near neighbour and I have seen her work continually for the welfare of the Society. Alan Bloom is the name which comes first to our minds when we think of the great improvement in the borders and beds of hardy perennials during the past 40 years or so. I first met him at Oakington in the 1930s. His love of the land, and his wonderful instinct for its proper treatment is something I understand and can evaluate, for I, too, was born to it, and have known no other life. Millar Gault I have known since his days at Stoke Poges, no one is more helpful to horticulture generally and his shrewd judgment is known to all who have had the privilege of referring to him. Many young men have cause to be thankful for his guidance in planning their gardening careers.

The choice of writers and their subjects has ensured that both the past and the future are dealt with. The chapter by Admiral Furse on the collecting of plants in their native habitats is just what is wanted by those who botanize on holiday. They should note particularly his warning against over collecting. Basically, this contribution should perhaps be read first, for all our plants have had wild ancestors, and if this fact is borne in mind when reading the other contributions credit will rightly go to those collectors in the past who introduced plants from which our present cultivars have descended. This point comes out in the chapter by Elspeth Harris who condenses so much fascinating information on American species and their introduction.

So it goes on, the history of *Digitalis* by Kay Sanecki and some of its uses are described in a way that all will enjoy.

Reminiscence by Noël Prockter promotes nostalgia, particularly for those of us who remember the lower percentages of success we had in striking cuttings of *Lupin* 'Downer's Delight' compared with others. I felt, having worked at "Bakers", that a fourth should have been in the photograph he describes, namely, H. G. Mills, for no one has done more to show hardy plants so effectively for over half a century.

Alan Bloom's chapter on heucheras is authoritative. These are everybody's plants and his father's initial work in breeding freer flowering cultivars is deservedly recorded.

A. G. L. Hellyer always writes such sound common-sense and in drawing attention to the value of raising hardy plants from seeds he keeps up his reputation. No one who saw the trials at Wisley in recent years of lupins and delphiniums should hesitate to sow seeds of these and other plants in which the plant breeders and seedsmen have devoted such diligent care. The literature which supports the practical work has not been forgotten and who better than Denis Hardwicke to sort this out for us. He takes us back more than a decade to remind us who wrote about the descriptions and cultivation of hardy plants for different soils and purposes.

Margery Fish has delved deeply into the story of double primroses. I wonder if, as a result of her fascinating contribution, she will find plants of 'Madame de Pompadour' which I grew in Devon in my 'teens.

The article on Japanese gardening by Peggy Kurata is enlightening, so much stress is laid on the significance of why plants and gardening materials are used by the Japanese in the way they do.

Wendy Carlile, as we all affectionately know her, completes the sextet of women writers and she draws on her deep knowledge to give us valuable information about campanulas as garden plants.

Harold Hillier's story of the history of his firm is fascinating. I have been visiting his nursery since 1924 and still cannot comprehend how one man can do so much in one lifetime.

When the 100th anniversary of The Hardy Plant Society is celebrated I predict that those responsible for THE ANNIVERSARY HANDBOOK at that time will refer back with envy to this one.

F. P. KNIGHT.

R.H.S. Gardens,
Wisley,
Ripley,
Surrey.

Our Chairman



Photo. Marion Street.

Miss R. B. POLE

MISS POLE was not born into the world of horticulture. In her early childhood, the garden was the province of the gardener and it did not occur to anyone to arouse the interest of the children. Her most vivid memory of those days in Oxfordshire is of playing cricket with her brother in the orchard, the first expression of a love of sports which was to be all-important for some years. When, in her teens, the family moved north, she was already showing her skill at games and played hockey for Cumberland while still a schoolgirl. Her enjoyment of anything athletic developed into a serious interest in physical education, which in turn she made her career. After training at what was then the Liverpool Physical Training College, she taught in schools in the south, including London where she also had her own gymnasium for adults.

She had never cared for living in town and left London in 1919 and, in partnership with a colleague, acquired what came to be known as Lye End. The history of the site is not relevant here, but it is interesting to note that many years previously it had been a nursery. The claims of full-time teaching would not allow Miss Pole to tackle the wilderness single-handed, and the planned conversion of the cottages to a house tied up resources which might otherwise have been spent on labour. When, in 1936, her partner moved, Miss Pole acquired the whole property but found it too expensive to live there alone: but by a happy chance she discovered that a cottage, a stone's throw down the lane from Lye End, was vacant, and soon she was installed in the cottage; the house at Lye End was let, with a small piece of land as a garden; and the nursery began to take shape on the rest.

In 1945 she gave up teaching to devote herself entirely to the nursery and in that year was elected a member of the Horticultural Trades Association. She concentrated on herbaceous perennials, now her main interest, and so began the nursery we know.

In 1954 she decided to sell the house, Lye End, and part of the land, keeping only half an acre which she could work herself. This is the Lye End Nursery of to-day, and the nursery in which she discovered her flair for spotting good chance seedlings.

From among these seedlings she raised *Achillea* 'Coronation Gold', to receive the R.H.S. Award of Merit in June, 1958; *Aster novae angliae* 'Lye End Beauty', which won the Carlile Cup in September, 1957 and was Highly Commended in R.H.S. trials in October, 1959; and *Achillea* 'Lye End Lemon', R.H.S. Preliminary Commendation in June, 1965 and selected in 1965 for trial at Wisley.

She does not consider the nursery by itself to be her full contribution to gardening. Locally, she serves on the Committee and Show Committee of the St. John's, Woking, Horticultural Society, and is a member of the St. John's Floral Arrangement Group. Afield, she is Vice-Chairman of the Herbaceous Section of the H.T.A. And, for completeness' sake, she has been our Chairman since 1961.

ALAN BLOOM

Founder Chairman
1957-59

EVENING shadows were dappling the borders and green walks of the Dell Garden as we moved out to our allotted stations looking, I imagine, like a party of ambulant spacemen in our headsets and microphones and trailing fathoms of cable from the B.B.C. mobile transmitter parked in the drive. We were preparing to make the first-ever live outside broadcast from Bressingham; and while the technicians checked their equipment we, the commentators, had a few minutes to look around and try to find words which might bring to life for distant listeners this unique and lovely garden.

All this was two years ago and though new beauties and features have since been added, that occasion remains for me the high peak of the Bressingham story, the accolade to its architect who dreamed a dream and, with his own hands, fashioned it into a living reality.

Later, a round dozen of us gathered for drinks in the big, cool drawing-room of the Hall and my mind went back to just such another evening sixteen years earlier, the time of my first visit when, although I did not then know it, the fate of Bressingham and all it was to become trembled in the balance.

As to everyone concerned with horticulture, the name of Alan Bloom had long been known to me. Before the war and while still in his early thirties he had achieved a nation-wide reputation as a specialist producer of hardy plants and had built up on the solid foundation of quality and service the largest nursery of its kind in the country.

More recently, with the publication of his first book, *The Farm in the Fen*, he had captured the attention of a wider public who found inspiration in this stirring tale of a hard-fought battle with 300 acres of some of the wildest and most derelict land in the kingdom.

But we had never met. So when by chance my way led me through Diss one day in the late summer of 1948 I turned in on impulse to Bressingham Hall and, as luck would have it, found its owner smoking an evening pipe at a gateway overlooking the fenland fields. "Primaeval jungle" would, in fact, be more appropriate than "fields", for southward all the way to the Waveney boundary the land was choked with buckthorn, blackthorn, white-thorn and sallows rioting over a matted undergrowth of reeds and rushes.

I was at once made welcome, invited to walk or wade over the holding, and soon we fell into that easy, wide-ranging conversation which makes Alan Bloom such a delightful companion to anyone sharing kindred interests. And if, at times, he seemed a shade preoccupied, small wonder in the light of the mammoth new task he had set himself.

But already, in two years, much had been accomplished; stock moved from Oakington was established and flourishing on the upper land and a start at

least had been made to win back the fen. Even I—no pioneer—could appreciate the lure of the Bressingham challenge to such a man.

And then, within weeks, came the astonishing news that Alan Bloom had pulled out—installed a hastily-chosen manager and emigrated with his young family to Canada.

Two-and-a-half years later he was back; leaner, poorer but shorn of illusions and no longer in doubt where his future lay.

It was an interlude ill-starred from the outset; "a foolhardy venture" he has called it, and now he prefers to leave it at that.

In any case, this was no time for brooding over the past. The nursery had gone seriously downhill and it needed every ounce of his energy and skill to bring the business back to viability.

Today, once again, Alan Bloom can look out on a unique achievement. Not only on the largest nursery of its kind anywhere in Europe but also on a garden of unparalleled beauty and diversity which draws visitors from all over the world. Just how this came about he has told in full and vivid detail in *The Bressingham Story*.

Remarrying in 1956, a new and hitherto unknown dimension was added to Alan Bloom's life—contentment. In Flora he found a true companion who made for him a stable and happy home now blessed with the joy of two enchanting small daughters. And most recently the family circle has been cemented by the return of his grown-up sons, Robert and Adrian, to join him in running the farm and nursery.

There remains a final ambition, one to which he is now free to devote the undiminished energy of a vigorous middle age. Since love of hardy plants has been the inspiration and driving force of his whole career, its ultimate fulfilment will be to see them once again valued at their true worth by gardeners everywhere. To this end the Dell Garden was a first and major step to be followed by the collections since planted at Wisley and Harlow Car.

As a tailpiece comes the recollection of an informal meeting which took place largely at Alan Bloom's instigation in December, 1956. It was at the home of Mr. A. G. L. Hellyer, with Will Ingwersen and myself also present and it was these discussions that led to the formation of the present Hardy Plant Society with Alan Bloom as its first chairman.

JOHN SAMBROOK.



S. MILLAR GAULT

Chairman 1959-61

THE Hardy Plant Society is fortunate to number S. Millar Gault as one of its three chairmen, for he is one of the great gardeners of the century. He is also one of the most versatile. He has been in private service, in institutional employment, in commercial gardening and in parks administration and he has made a success of each

When I first got to know Mr. Millar Gault early in the war, he was reckoned to be the best vegetable grower in the country. Three gold medals from the Royal Horticultural Society for potatoes and eight more for large exhibits of vegetables bear witness to his prowess. Soon after the war he wrote what I consider to be the best book in English on vegetable growing in private gardens and I am delighted to know that this is soon to be republished in a new edition.

Yet today there are probably a great many younger gardeners who have no idea that Millar Gault is an authority on vegetables. Some may think of him primarily in connection with roses, for since he went to Regent's Park as Superintendent in 1955 he has transformed Queen Mary's Rose Garden, and made it into what is virtually a national trial ground for all that is best in British rose breeding. On several occasions I have heard well travelled rosarians say that Queen Mary's Rose Garden is now the best rose display garden in the world, and my own more limited travels have revealed nothing to make me doubt this.

Other gardeners may think of Millar Gault primarily as a hardy plant expert because he has devoted so much time to them, and exhibited them so consistently well. He has already received 80 Awards of Merit for plants exhibited at Royal Horticultural Society shows. Exactly how many of these were for hardy plants I do not know, but it must certainly be a high proportion. I believe it is one of his minor ambitions to score a century with Awards of Merit, and I am sure he would be delighted, as would all the other members of the Hardy Plant Society, if his hundredth were a really outstanding herbaceous perennial.

Miller Gault was interested in gardening from boyhood, so interested that he was even prepared to work every Saturday and during his holidays in the cemetery at Wick, Caithness, where he was at school. It was not surprising, therefore, that he chose gardening as a career, and he must be reckoned among those fortunates whose hobby has also been their means of livelihood.

He commenced his professional career at Crathes Castle, near Aberdeen, in 1919, and for the next twenty years was entirely concerned with private gardens. After a period as foreman at Dupplin Castle gardens, near Perth, he crossed the border in 1930 to become general foreman at Holkham Hall, Norfolk. Three years later he moved still further south to Stoke Place, Slough,

his first post as head gardener, but very shortly he was engaged as "head" by Viscount Astor, and took charge of the magnificent Cliveden gardens.

Here he remained until 1939, when he left private service for good, and became head gardener at St. Andrew's Hospital, Northampton. I doubt that the hospital has ever been so much in the public eye, for almost immediately Mr. Gault began that series of vegetable exhibits which made him a national figure, won the hospital all those gold medals and no doubt contributed very largely to his selection as an Associate of Honour of the R.H.S. in 1946. Certainly no exhibits of such quality and variety had been seen from any non-commercial source since the days when Edward Beckett was head gardener at Aldenham House.

Yet there was something that made Millar Gault feel that he still had not completed his course and found his final vocation. He moved into another new world—that of the commercial seed trade. First he served a period with Sutton and Sons at Reading, growing flowers and plants for their magnificent exhibits, and then he moved northwards to perform a similar role for Bees of Liverpool.

But neither was this to be his final goal. There was yet another branch of gardening which he had not assayed, that of the public parks. In 1954 he came south again to take charge of Greenwich Park, and so successful was he in this venture that a year later he moved on to the more important post at Regent's Park. There he has remained ever since, planting roses and hardy plants, opening up new vistas and developing new features, exhibiting, lecturing, judging, and being rewarded with the M.B.E. and the V.M.H. on the very same day in 1963.

As he is now 62 it seems unlikely that he will again seek a new professional career, but I wait eagerly to see what he will achieve as an "amateur" when he retires in three years' time. Already he grows sempervivums as a hobby, and was awarded the Farrer Trophy in 1965 for the best exhibit of alpines. There is no end to the versatility of this man.

One thing is certain. He will continue to be in demand up and down the country as a judge, and so long as he can travel he will continue to act in that capacity. For he loves judging as much as he loves growing plants. He began 40 years ago when he was still a foreman in a Scottish garden and he has continued ever since. He is to be seen at all the principal shows and is on both the R.H.S. Floral 'A' and Floral 'C' committees. He is chairman of the Royal National Rose Society's Exhibitions Committee and serves on their new seedlings panel. He is on the joint committees of the R.H.S. and the Delphinium Society, and the R.H.S. and the National Dahlia Society, and is President of the National Vegetable Society.

With all this he still finds time to sit on the Council of the Royal Gardeners' Benevolent Society and look after those gardeners who need help in their old age. No wonder he is regarded with a certain degree of awe by his less energetic friends.

A. G. L. HELLYER.

Dear Reader,

It is with pleasure that I offer my hearty congratulations to the Hardy Plant Society upon its tenth anniversary. In spite of early setbacks it has survived so that there is every reason to rejoice and celebrate with the issue of this TENTH ANNIVERSARY HANDBOOK.

Since joining the Society in 1958 the enjoyment my garden gives to me has been increased because of the wide range of hardy plants brought to my notice through the pages of the Bulletins and Newsletters. This is an aspect of gardening that can be shared with others as experimental planting with its accompanying interest always appeals to visitors and friends and frequently leads to the interchange of plant material and the spreading of knowledge.

As my knowledge increases through the influence of the Society so does my appreciation of the skill and attention which produces such excellent qualities in hardy plants. Those generous members who welcome visitors to see their plants deserve our grateful thanks too, for they are doing their fellow members a great service and it is one activity of the Society worthy of full support from members. One leaves some of the smallest gardens where enthusiastic owners grow fascinating plants, filled with inspiration, encouragement and determination to achieve better results at home.

Garden visiting might well be the means by which the Society could launch its much awaited regional groups. Members in the north and far west have the feeling of remoteness from activities, which usually take place around or in striking distance of London, and their only link with the Society is through the publications. The development of these groups, I feel, should be sponsored by interested and keen members and it would be ideal if, when on holiday, a member could get in touch with the secretary of the regional group and be put in touch with members in that district or told of gardens and nurseries of special interest in the area. This scheme might well expand with time and grow to include overseas members' visits to England.

In severe weather, when we are not working among our plants we are able to enjoy other advantages of membership. The advisory panel is there to answer our questions and to help us on horticultural problems, and someone always seems to be able to trace the unusual plant for us or tell us where we can find further references for our reading and study of a genus.

How fortunate we are to have such an organisation as the H.P.S. which embraces so wide a range of plants rather than a single genus. This scope must surely be able to meet all tastes, all soils, climatic conditions and environment. What more could be asked of a voluntary organisation?

I hope that this TENTH ANNIVERSARY BOOK will enjoy a wide international circulation, bringing in new members so that the H.P.S. will go from strength to strength and on reaching its majority will have become one of the foremost Societies in Great Britain, if not in wider horizons.

Yours sincerely,

An Ordinary Member.

NOTES ON PLANT COLLECTING

by PAUL FURSE, V.M.H., F.L.S.

PLANT-COLLECTING covers a mass of activities, ranging from collecting a single plant on holiday, to be planted and grown with love in one's own garden, through to many months' work in remote places. Even though it is seldom possible to plan such a trip with complete freedom of choice, unrestricted by time and expense, by other conflicting interests or responsibilities, or, for longer journeys, by political difficulties and barriers; yet in most places there are plants of interest which one would like to bring home, and these notes try to cover the general run of problems which affect both holiday collecting and long journeys.

Particularly rich areas for interesting plants, which are not easily obtained from nursery gardens, though they may not all qualify as "Hardy Plants", include:—

- a. Spain and Portugal.
- b. Corsica and Sardinia.
- c. The south of Italy and Sicily.
- d. Tangier, Algeria and Morocco.
- e. The Balkan countries, Crete and Rhodes and Cyprus.
- f. Turkey, the Near East, and for longer journeys, Iran and further east.

There are two very different methods of collecting, each with equal value and enjoyment; either to go to one comparatively small area and to cover it thoroughly by walking or riding and perhaps camping, so that most of the plants can be found and studied, or to cover a wide area by car or bus, making a general reconnaissance rather than a detailed study. The first of these methods is most suitable for areas where the flora is well-known so that it is necessary to search for the unusual plants, and the second is best suited to large areas which one does not know well, or where many plants will be strange and interesting.

Some collection of data before departure is valuable, but detailed knowledge is not really needed except for specialist or intensive work. There is a great mass of information available in the journals of the Royal Horticultural Society and in its year books, and in the publications of the many specialised societies such as our own. These are available in the R.H.S. Library and elsewhere, and information and advice will always be given by the staff.

One advantage of preparatory work at home is that if one knows what may be found in any area, it is much easier to pick it out from a distance, or when the flowers are not out, and it may be inconspicuous.

It is, of course, necessary to find out what permits are needed, and the Ministry of Agriculture will give this information and provide application forms for individuals to bring back limited quantities of most plants, under certain safeguards, which will pass the plants through the British customs. If serious collection is undertaken, which will be distributed widely or amount to some bulk of plants, export permits or pathological certificates may be required from the country concerned.

It is important to find out what plants are protected in the country where

you are going to collect, and to obey the order scrupulously, or survival of the rarer plants may be endangered; and it is important to go further than this and not do all one's collecting beside the road or in places where many people may go, or even the less rare plants may be driven away and future visitors will be deprived of the joy of finding them easily. The urgent importance of not over-collecting in any particular area cannot be overstressed.

Much enjoyment and much value can be obtained without any appreciable destruction of plants; good photographs of rare plants, with notes on them, are invaluable to botanical gardens and herbariums and do no harm to the rarest plant, and the photographs will give pleasure to thousands if they are published in suitable journals; this is a humane and rewarding way of collecting. If paintings or drawings can be made, still more value is obtained without harm to the plant and the population. Then there is the old-fashioned fun of making collections of pressed plants, which is still the best way of providing basic information on plants. Just as one looks up plants in a book, so can they be looked up in a herbarium; the pressed specimen has little of the beauty of a drawing, but is often more valuable.

Everybody has their own ideas about the best equipment to use; trowels are essential, from double-handed two-foot-long monsters which are ideal for heavy work, narrow fern-trowels, and the ordinary garden trowel, although these are usually rather weak for heavy digging. A small pick can be very useful, or an old ice-axe; and a small-bladed spade if there is room to carry it. Secateurs or a good knife are required.

Polythene bags are essential, and perhaps pots too; their great value is that they are very tough, and also that they allow air to filter through, but will not let water-vapour pass, so that the plants do not dry out. Polythene allows some circulation of air which dissipates the heat; excess moisture condenses as dew inside the bag, and this must be dried off to prevent rotting and heating up.

Flower buds can often be "hatched out" for identification by putting them into a polythene bag and tying up the mouth.

Then there is the question of the proper season for collecting; a plant collected at the wrong season may take years of skilful culture to bring back its strength, and unless this can be guaranteed it should not be collected. For most plants, the worst season is just before flowering, and the best time is afterwards.

Bulbs and roots store energy for future growth, and leaves build up this reserve of energy by transmitting nourishment to the roots; flowering and seed-making absorb energy which must be restored by the leaves. This cycle gives a clue to plants such as colchicum, whose leaves appear at a different time from the flowers, so that they should be collected when the bulbs or roots have been built up by the leaves, not when they have been run down by producing flowers and seeds.

The same clues show how to look after the bulb or plant after collection. Flowers and seeds, which use up energy, should be removed when collected; the leaves which feed the plant should be kept alive and be given as much light as possible, which is used by them to build up energy. Keep them green, do not let them dry off quickly, do not let them get crushed and overheated, and take them off when they go yellow or wither off.



Photo. Paul Furse.

Drying the presses and wet paper in the morning sun in Khorasan. The herbarium work is painstakingly carried out by the author's wife, the landrover 'Desert Rose' becoming both office and laboratory.

When plants or bulbs are put into polythene while in growth, and unless the bag can be sealed and be kept free from crushing, the stems and leaves should be left sticking out of the mouth of the bag, to give free circulation of air. If plants are crushed together so that air cannot circulate freely, they will heat up and rot, as if they were a compost heap; it is better to remove the leaves and starve the bulb or roots than to allow decay to start. A fungicide may be useful when the plant has dried off.

Seed is ideal for collection, but presents its own problems; if there are no flowers it is often difficult to recognise the most desirable species, and if superb plants have been marked down while in flower, when you go back to look for seed they have often been grazed or cut with hay, or a new road has been bulldozed across the locality.

Then there is the question of labelling the plants or specimens; "jewellers' tags" (the usual small tie-on price labels) are ideal, giving each label a serial number. This number is also used for a short field-note in a notebook, giving the name (if it can be guessed), the locality, a brief description of the habitat ("cornfield weed", or "granite rocks", or "under oak scrub"), the altitude, a summary of associated plants, and a very short description.

These notes are very elementary, and every gardener will know how to look after the plants; but they do need constant attention and must never be packed away out of sight, forgotten till you get home. During our expeditions my wife takes on the whole work of caring for our plants, and their good condition is entirely thanks to her skilled and laborious work.

Americans in the Border

by ELSPETH M. HARRIS

A WORLD tour in your garden? At first sight this is impossible but, with the aid of patient reading, an atlas and a vivid imagination, just such a tour can be made, at least in the mind, through a study of the wild origins of our cultivated plants. An apparently simple entry in a flora or dictionary, tersely recording the wild habitat and date of introduction of a species, may lead the reader into a mental adventure along the paths of botany, geography and history as well as of horticulture. If the enquirer also has the good fortune to know from his own travels something of the regions mentioned, the adventure will be all the more stimulating and it is likely that his appreciation of the horticulturists' and breeders' work on these wild plants will be considerably deepened. With these thoughts in mind it is an intriguing exercise to take a region of the world and see how its flora is represented in the British garden. Such a region is North America, from whence comes a considerable percentage of the hardy perennials we grow as herbaceous material.

North America's contribution begins in early spring. The European settlers found not primroses and anemones, but trillium species and *Podophyllum peltatum* in the woods of the Eastern States and Southern Canada, along with the delicately beautiful hepaticas and *Sanguinaria canadensis*, the blood-root, whose juice was used by Indians as a face paint. Unfortunately none of these American genera are easy of cultivation in Britain, the first two requiring moist, humus-rich soil and the others occupying drier sites. Nevertheless they are worth horticultural effort and look particularly lovely in a naturalized setting. The eastern woodlands also provide *Tiarella cordifolia*, aptly named foam-flower and the taller false Solomon's seal, *Smilacina racemosa*, and the baneberries, *Actaea alba* and *A. rubra*. The latter are named for their autumn interest when they produce white or red berries. All these make useful ground-cover or background planting in a shady area. *Mertensia virginica* is a plant whose common names of Virginia bluebells or cowslip betrays a memory, albeit confused, of European spring flowers. It grows in open woods and meadows, dying down in summer and can consequently be lost in the garden if its position is not noted. Dodecatheon species were also christened cowslip although the easiest species *D. meadia* is better known as shooting star. Primula and dodecatheon, both in the family *Primulaceae*, choose to inhabit the Old World and the New World respectively, the latter genus providing attractive garden plants from woods in both Eastern and Western States. They are not too easy to grow, but a bigger challenge awaits the cultivator who becomes fascinated by the hardy American lady's slipper orchids. The yellow *Cypripedium calceolus* is known in Britain as an extremely rare native and is represented in the eastern States by its variety *pubescens*; the showy lady's slipper, *C. reginae* is much more choosy, growing in cool, even swampy shade and having up to three superb pink and white flowers, whilst pink lady's slipper or moccasin flower, *C. acaule*, inhabits drier, sandy sites although still in the shade of forest trees. Fortunate the British gardener who can flower these successfully!

With the onset of summer we move into the meadows, noting on the way that two early-flowering members of the pea family come from the edges of moist woods; *Baptisia australis* with indigo-blue spikes and the yellow thermopsis, represented by *T. montana* from the western States and the Rockies and by *T. caroliniana*, a later species from the south-east. The handsome mallow, *Sidalcea malveflora*, is a better-known herbaceous border plant and with its cousins *S. candida* and *S. oregana*, brings the open fields and prairies of Western America into the picture. California and British Columbia also contribute the chief parents of the herbaceous lupins, as *Lupinus arboreus*, the yellow tree lupin and *L. polyphyllus*, the purple and blue species collected by the intrepid David Douglas in 1826, but whose true breeding potential had to await the labours of George Russell a century later. It is difficult now to imagine the June garden without the rainbow colours that he released from these American and other species of lupins.

And so to midsummer and back to the eastern States, from where the modest spiderwort was collected and sent back to Europe before the end of the sixteenth century. After some confusion it was finally and correctly named in 1718 as *Tradescantia virginiana*, thus commemorating the younger John Tradescant whose voyage to America in 1637 was to produce such a wealth of plant material for British gardens. Tradescant must be credited too with the introduction of the brilliant *Lobelia cardinalis* and its purple-blue neighbour *L. syphilitica*, plants for partially shaded and damp positions reminiscent of their native stream-side habitats. In the moister meadows and open copses *Monarda didyma* and *Physostegia virginiana* will also be in flower in July and August. Both are members of genera exclusive to North America. The *Monarda* was variously named bee-balm, bergamot and Oswego-tea, the latter recording one of its homes near Lake Ontario and the fact that a fragrant drink could be brewed from its leaves. It is also of interest that the genus is named for a Spanish physician, Dr. Nicolas Monardes whose book *Joyfull newes out of the newe founde worlde* was the first flora devoted to the Americas, published in 1569 and translated into English in 1577. Rather less easy to grow in our borders, the blazing stars or gayfeathers occur down the eastern States and across to Kansas and Texas, and belong to the genus *liatris*. Whilst *L. spicata* and *L. pycnostachya* require a moist soil, the prairie species *L. punctata* and *L. elegans* are plants requiring full sun and a poor soil to do well in the garden. From somewhat similar habitats in the east and mid-west, species of *Coreopsis* were collected early in the eighteenth century, *C. auriculata* being already known in English gardens in 1699, followed by *C. lanceolata* in 1725 and that charming dwarf species *C. verticillata* in 1759. A century later Douglas contributed *Gaillardia aristata* from the Rocky Mountains. *Heliopsis scabra* and *Helenium autumnale* rub shoulders with coreopsis both in the wild and in the garden and all three, together with gaillardia and liatris, are of course members of the family *Compositae*. A claim could justly be made that, of the many North American plants we grow as perennials, those in *Compositae* are the easiest and most showy; but more of that shortly.

Meanwhile we cannot leave the summer period without comment on another exclusively American genus, *Phlox*. Growing on the edges of woods and in thickets from Pennsylvania south to Florida and west to Kansas, the

herbaceous *P. paniculata* soon proved to be amenable to cultivation and plants brought in from the wild to the early Virginian gardens thrived and produced flower panicles of much increased size. However, Europe had to await the efforts of English and French breeders in the early nineteenth century before it became apparent how splendid and hardy a border plant had arrived with its first introduction in 1732. A knowledge of its habitat might help to prevent some of the disappointments occasionally voiced about this plant; it is essentially a species from moist and even partially shaded situations, consequently it easily slips into a niche in an English border providing it is never short of water. By contrast the aristocratic romneya from Southern California requires a dry and completely sunny position reminiscent of the hot, dusty hillsides of its native state. This is not an easy genus with which to succeed in Britain but, given a suitable site, the glorious foliage and handsome white poppy flowers with the central boss of golden stamens never fail to draw praise. *R. coulteri* and the smaller *R. trichocalyx* both commemorate Irishmen, Thomas Coulter (1793–1843) and the Rev. T. Romney Robinson, an Irish astronomer.

Finally, we return to *Compositae*, that magnificently diverse and ubiquitous daisy family. With the approach of autumn, many British herbaceous borders are dominated by the genera *Helianthus*, *Solidago* and *Aster*, the sunflowers, goldenrods and Michaelmas daisies. All three are represented at their widest extent in North America and are abundant in the east and central States usually occupying any open clearings, fields and banks, while some aster species are also plants of light woodland. As natives they are frequently regarded as pernicious weeds since they possess a marked capacity to invade by seed and underground spread. This habit can also become apparent in gardens unless regular control is exercised. William Robinson condemned solidago outright on these grounds, but the introduction of excellent shorter cultivars (e.g. 'Leraft', 'Lemore', 'Golden Gate') has recently increased their popularity. The sunflowers remain tall plants but none the less handsome in flower; *Helianthus decapetalus* and *H. salicifolius* have produced some good hardy forms, whilst 'The Monarch' (from *H. atrorubens*) is a splendid plant marred only by a tendency to be killed out in a hard winter on the heavier soils. Lifting a few of its tuberous roots for over-winter storage can be a wise precaution. Aster on the other hand was one of Robinson's favourite plants and this before the great flood of beautiful cultivars had appeared on the scene. *A. tradescantii* is claimed as the first species to reach England from John Tradescant in 1637; this is a late, dainty-flowered aster which, like *A. cordifolius*, *A. ericoides* and *A. ptarmicoides*, is sometimes now overlooked in favour of the more flamboyant varieties. There is no doubt that the New York aster and the New England aster occupy the centre of the stage. The name of the former, *A. novi-belgii*, is a reminder that it was sent to Europe from the Dutch colony of New Netherlands about 1650, although it grows wild from Newfoundland to Georgia. (This colony was annexed by Britain in 1664 and the stockaded town of New Amsterdam then became New York, commemorating the Duke of York who later became James II.) The latter, *A. novae-angliae* reached England in 1710, and whilst it has produced several good cultivars, it has not been so wonderfully prolific with garden offspring as *A. novi-belgii*. Certainly few British borders would be without some of its

cultivars for autumn colour, since the flowers range from deep purple to lavender, pink, rosy-red and white. If space allows, a border devoted entirely to the genus can be a lovely sight at the end of the season. Pests and diseases may present some problems, but present research into control and wise choice of cultivars will assist in their prevention. We cannot dismiss this useful trio of genera in *Compositae* without adding the exclusively American genus *Rudbeckia*. These yellow coneflowers are found often on the heavier soils and in one case at least, *R. laciniata*, ranging almost from coast to coast. (It is of interest that this species was known in 1640 in England as coming from "the French colony about the river of Canada" i.e. Quebec.) Generally, however, the species are found east of the Rockies. An easy and accommodating genus under British conditions, it has produced good, self-supporting forms from *R. fulgida* (*speciosa*, *deamii*, *sullivantii*) and *R. nitida* 'Herbstsonne' as well as the tall cultivars of *R. laciniata*. German breeders have worked successfully on this genus and 'Goldquelle' is one of their improved compact forms, a hybrid between *R. l.* 'Gold Ball' and *R. n.* 'Herbstsonne'. Closely related to the coneflowers is the much more temperamental *Echinacea purpurea*, a plant of the prairies and open woods in the mid-west. The unusual reddish-purple flower is worth awaiting; establishment is slow but if the soil is good, well-drained in winter and moist in summer the rewards will come.

Of necessity, omissions both of interesting genera and of reference to the men who collected, introduced and grew so many North American plants, have had to be made in this brief account, but it is hoped that it may serve to stimulate interest in the native habitats and origins of some of our perennials. Such an interest can be of value horticulturally as well as intellectually and of course the process of introduction and especially of breeding goes on unabated on both sides of the Atlantic.

Hardy Plants from Seed

by A. G. L. HELLYER, A.H.R.H.S.

IT used to be said, with some truth, that, with the exception of unimproved species, herbaceous perennials could not be raised satisfactorily from seed because of the wide degree of variation in the seedlings.

Today it would be foolish to make such a statement, partly because, by taking pains, plant breeders have been able to produce a number of excellent true-breeding strains of perennials, but also because, even where variation remains, they have brought it within the bounds of acceptability. Many a gardener would sooner have a dozen plants of delphinium or lupin that are all different but all of top quality, than twelve identical plants. Good mixed strains are becoming very much the order of the day, not only in perennials but also in annuals and bedding plants, and many seedsmen report that they get far more orders for mixed colours in antirrhinums, petunias or zinnias than for separate colours.

Often their mixtures offer a wider range of colours than is available in other ways. For example, not many nurserymen offer more than three or

four colours in oriental poppies but I have just purchased a seed strain, which is said to include a whole range of colours. A friend is giving me seed of another American strain containing wonderful shades of pink and flowers of superlative size, so I hope soon to enjoy all the fun of having a lot of new poppy colours in my garden.

Very much the same thing happened to delphiniums when the first really good seed strains began to appear 15 to 20 years ago. Nowadays, one can buy delphinium seed either to colour or in mixture and if purchased from a reliable source either will give good results.

Personally, I enjoy growing any plant from seed and every year I try something new. This year, in addition to the oriental poppies, I have a new strain of Russell lupins called 'Minarette'. I have not seen this in flower but according to the catalogues the plants are dwarf, not exceeding 18 in. in height, and the colour range and flower quality is similar to that of the familiar tall Russell lupins. Maybe I shall be disappointed, maybe not. What is certain is that here is a hardy plant I can enjoy in no other way than by growing it from seed.

Two other items in my own seed order this year, not new in themselves but new to me, are *Verbascum* Large Flowered Hybrids, which are said to include a wide range of most unusual colours, and *Potentilla* *Hybrida* Double Mixed, a strain of an old-fashioned hardy plant which has been strangely neglected for the past 30 years. When I was a young man I used to grow with delight such varieties as 'William Rollisson' and 'Escarboucle' the one with orange-red the other with crimson flowers like big geums. I have not seen either for more years than I care to remember but I am hoping that my one and sixpenny packet of seed will produce something of the kind.

Any good seed catalogue will produce plenty of similar surprise packets. What about a good strain of *hemerocallis* or the delightful *Agapanthus mooreanus* hybrids or even Michaelmas daisy seed from a specialist who is not afraid to packet his best seed?

But these are all mixtures. In some ways the true breeding strains are even more interesting if only as proof of the mastery which seedsmen are acquiring over what was once regarded as highly intractable material.

There are, to begin with, the superb named cultivars of delphinium in the 'Pacific Giants' strain. These are now so well known that it is scarcely necessary to detail them. 'Astolat' I still regard as the best pink in a full-scale delphinium and 'Guinevere' is a unique shade of parma-violet. 'Black Knight' is about as deep a purple as it would be possible to get and 'Galahad' a very nice white, though just a little variable in the colour of its eye. But that, in the garden, is a detail that scarcely matters.

Last summer I was greatly impressed by a seed cultivar of *Chrysanthemum maximum* named 'Silver Princess' for not only was this remarkably uniform but also it was one of the most compact, free-flowering Shasta daisies I have ever seen produced in any way. It has single flowers of excellent size and form.

Some years ago there was a trial at Wisley of true-breeding strains of *Lupinus polyphyllus* and the best of these were quite remarkable. I was particularly impressed by some of the yellows, but these were of Continental origin and so far I have not seen any of them in English seed catalogues. If anyone can put me on their track I should be grateful.

SPOTS

ALICE M. COATS

"The cowslips tall her pensioners be;
In their gold coats spots you see, —
These be rubies, fairy favours,
In these freckles live their savours . . ."

A Midsummer Night's Dream, Act II, Sc. 1.

For some 350 years nobody seems to have paid particular attention to Shakespeare's association of spots with scent; but recent research has shown it to be perfectly correct. About twelve years ago a German scientist, T. Lex, investigated the subject, and came to the conclusion that some flowers possess scent-guides, probably of more importance to insects than the visible honey-guide markings. He also discovered that the marked parts of certain flowers had a stronger, and sometimes a different perfume from that in the rest of the blossom, and specifically mentions the primrose, where most of the scent is concentrated in the deep yellow honey-guides at the base of the petals. Presumably the same is true of the allied cowslip—and now we have only to prove the existence of the fairies.

I have not been able to read Mr. Lex's treatise, (which is in German) and do not know to what extent the association between scent and spots has been proved to be the rule. Obviously, there are difficulties. Examples of strongly-scented, spotted flowers are to be found among the lilies. In some species the degree of spotting varies very much from individual plant to plant; but so far as I know, there is no evidence that the plain flowers are any less fragrant than the heavily-spotted ones, or that they are any less popular with insects. It would be interesting if somebody who grows a variety of lilies could make observations on these points.

Many flowers that we grow for the beauty of their spots, such as mimulus, tigridias and foxgloves, have little or no scent, or at least, little that is perceptible to human senses. Robinson said that the charm of foxgloves lay in their "pretty throat-markings . . . which make large flowers resemble those of a gloxinia"; but opinions on the subject differ. "How delicate are the little spots which ornament the inside of the flower!" wrote William Curtis in 1776, "and like the wings of some of our small Butterflies, smile at every attempt of the painter to do them justice"; but Ruskin, who proposed a special botanical order called the *Draconidae* to embrace such spotted, bloated flowers, found the spot of the foxglove "especially strange, because it draws the colour out of the tissue all round it as though it had been stung, and as if the central colour was really an inflamed spot, with paleness round". White foxgloves, I believe, usually retain the spots; I cannot recall ever to have seen a pure albino form, and wonder whether such a form is ever produced, and if so, whether it would be unattractive to insects. I have seen unspotted tigridias, and found them a little insipid.

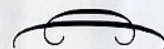
"Glory be to God for dappled things!" exclaims Gerard Manley Hopkins in the poem "Pied Beauty"; and among the "fickle, freckled" delights in which he rejoices are "fresh-firecoal chestnut-falls". We hardly appreciate sufficiently the beauty of the horse-chestnut flower, perhaps because we seldom see it close at hand; yet it was the subject of a picture by Van Gogh. Lex pointed out that the yellow honey-guides on the lower petal, which are the most scented part, turn pink as the flower ages; and that with the change of colour goes a change of scent. This opens up the whole fascinating question of changing spots, which is obviously connected with pollination and the development of pistils and stamens. The sulphur-coloured flowers of the yellow weigela, *Dier-villa middendorfi*, are marked when they open with golden-yellow spots; these gradually change as the flower ages, through orange and red to a deep, port-wine purple. The prophet-flower, *Arnebia echioides*, reverses the process; it opens with five dark spots at the base of the petals (said to be made by the fingers of the prophet Mohammed) which fade and disappear as the flower matures. Flowers are more accomplished than leopards.

There are only a few cases in which plant-breeders have paid particular attention to spots and markings as such. In the viola family, much trouble has been taken to enlarge the black velvety blotch on the lower pansy petal, while eliminating from the viola and violetta the honey-guides that centuries of evolution had solicitously established. Yet it is the rayless violas, and not the blotched pansies, that are the most fragrant. I well remember the soft scented embrace of the viola 'Maggie Mott'—now, I fear, extinct. It was a flower you could inhale; its gentle blue petals rose to caress the nose of the enraptured sniffer. In this case the loss of the markings had entailed no loss of scent; but in a recent article in *Gardener's Chronicle* it was pointed out that all the fragrant wild species of gladiolus were speckled, and that it might prove impossible to breed a scented gladiolus without streaks or spots.

Another scented flower bred principally for its markings was the Paisley pink, where much importance was attached to the central black eye. Many plants of widely different families have evolved a similar pattern—that of a simple, often bowl-shaped flower with a striking central contrast. The colours of *Ixia viridiflora* and *Geranium psilostemon* would be harsh without their redeeming black eyes, and the flowers of *Hibiscus syriacus* are greatly embellished by what Miller called their "dark bottoms". Such spots are most effective where the contrast is strongest, as in *Cistus ladaniferus* or the magnificent *Paeonia suffruticosa* 'Rock's Variety'. But if you cannot grow this queen of flowers, some of the cheap and easy poppies run it fairly close; and they might be greatly improved if the breeders would take them in hand, with special regard to their markings. In the Oriental poppies the black spot is hardly necessary, as the black capsule and stamens make a sufficient contrast; I had, but unfortunately lost, an apricot-pink variety with no spot at all, which was extremely effective. In the annual opium poppies with their apple-green centres, the dark spot enhances the richness of the sombre purple varieties, but clashes horribly with the salmon-pink shades, and in the white varieties of both species the spot is seldom clearly enough defined. As at present grown, they just fail of real elegance and style. Judging by pictures only, it seems that some interest is now being taken in the markings of the annual poppies; in the new *rhoeas* cultivar 'Ladybird' the black spot is en-

larged and accentuated, while in the *somniferum* cultivar 'Danebrog' it seems to have been replaced by a white blaze.

I have heard of a dog-breeder whose ambition was to raise a Dalmatian "in reverse"—with white spots on black; but on the whole, breeding for spots in hardy flowers has been neglected. Many beautiful hybrid lilies have recently been raised, but I doubt whether the presence or absence of markings has been made a particular object. The aim should be either to exaggerate, or to eliminate the spot. Small speckles are useless; their effect is only to dim the colour on which they are imposed. The petals of *Lilium pyrenaicum*, for example, are in themselves a good clear yellow, but the tiny black spots with which they are liberally besprinkled give them (in some varieties) a greenish hue, which nevertheless admirably enhances the orange-scarlet stamens. Some people find the powerful scent of this lily oppressive; I pity the scientist who would try to isolate it in those microscopic spots!



Alan Bloom discusses his work with Heucheras

PERHAPS I have a specially soft spot for heucheras for I have never, since schoolboy days, had to go far into the garden to see them. My father was a grower of market flowers and saw possibilities in them for cutting, over 40 years ago. It was because G. W. Miller of Wisbech also grew heucheras that he and my father put their heads together not only about heucheras but about me and so it was that I went to Wisbech to learn about plants when I rebelled against learning any more algebra, physics and the rest. This is perhaps by the way. But seeing white-bearded Mr. Miller knifing up heucheras with just the same loving care as did my father, helped to foster my love for them too.

The trouble with the old varieties existing then was that they were sometimes shy to flower. Those of the species *sanguinea*, with quite large flowers but fewer to a stem, were less free than the *brizoides* type with their tiny bells and longer stems, up to 2½ ft. Credit falls fairly, I think, to my father for crossing the two. In due course one of the best selections called 'Bloom's Variety' gained an A.M. in 1930, though it has since been superseded by 'Coral Cloud'. Both are deep coral red, with a good length of stem, free to flower and excellent for cutting.

But these were not the only improvements. Along with the first selections were some nearer to *sanguinea* in form but with signs of being much freer to flower than such as 'Pluie de Feu' and other old varieties. Their promise appealed to me, with leanings towards garden plants rather than those mainly for cutting. In the fullness of time some of these, having proved themselves, were named and sent to Wisley under trial in 1936. On and off since then, others have been sent, gaining several Awards of Merit, Highly Commendeds and even one First Class Certificate.

Not many of the species of heucheras are seen in gardens. Though all are good foliage plants, some are shy to flower and none I have seen, apart from *sanguinea* and *brizoides* are at all colourful. Intriguing though green is as a colour in flowers, when those flowers are tiny or perhaps with buff or brown, white or sulphur along with the green, as in some of the obscure heuchera species, one would have to be either colour blind or a trifle cranky to prefer them to the modern varieties, mongrels though they are. Some strange shades occasionally appear in batches raised from seed of these modern hybrids. They may have quite large flowers and show exemplary freedom and vigour, but when duns and umbers, and other colours more associated with soils than with flowers appear, they have to be given short shift lest bees use their pollen to the detriment of the strain.

But other worthwhile colours have appeared. One I named 'Splendour' is a lovely coral-scarlet shade and another called 'Auburn' is just about that colour. Unfortunately both are slow growing though they flower freely enough, once established. An F.C.C. was given to 'Scintillation', and this is by way of a bicolor, with the red lips to each pink bell making a very effective show. Two quite new ones are 'Bressingham Blaze' and 'Sunset' both of which gained an A.M. in 1965. The former is an intense flame-scarlet with quite large flowers and the latter a late flowering red, both about 2 ft. high and very free flowering. The best of the bright reds is 'Red Spangles' though it is fairly dwarf at 20 in. and I would say the best pink is 'Rhapsody'. These are comparatively large flowers. But since the largest flowers in heucheras are only about $\frac{1}{4}$ in. across, it is an indication of how many flowers a well-grown plant produces to make such a show as it does. Fifty to sixty stems to a 2-year-old plant, which is not uncommon, multiplied by up to fifty flowers to a stem or spray, gives a total that few border plants could attain in equal growing space.

Heucheras are not demanding of space, neither do they demand the richest of soils. Their first need is for good drainage and in general they are happier on light or sandy rather than heavy or clay soil. They like sun, and though not unhappy in shade, they seldom suffer even in severe drought. What they are apt to suffer from, however, is an excessive woodiness in the root, with a tendency to grow out of the ground. This can be readily understood when it is realised that each flowering crown extends upwards with age, leaves are continually forming from this crown, along with flower stems in season, and as it lengthens, it loses vitality and consequently freedom in flower. I have known some plants to flower steadily for four or five years without trouble and of cases where the plant remains alive, though shy in flower for several more. But when after maybe 3 or 4 years, the crowns appear to become brown and woody below the terminal rosette it needs either mulching or replanting.

Heuchera 'Bressingham Blaze' with salmon-red flowers reaches some 20 in. and flowers over a long period like most other plants of this genus. It is one of the outstanding newer ones to be raised by the author, and gained an Award of Merit in 1965.

Photo. J. E. Downward.



It is for this reason that heucheras are best planted right up to the green rosette. Crowns with some fibrous root attached should be broken away from old plants, and discarding all surplus woody remnants which are a hindrance to vigour and freedom. Mulching helps greatly even if only soil is used, because it encourages fibrous roots to form closer to the active crowns. But for all their hardiness and quite wide adaptability to dry and sometimes starved soil conditions heucheras do respond to the good things of plant life. Some fertiliser mixed with peat or some compost or leaf mould used either as mulch or as a soil improver will promote a worth-while response. The difference between old varieties and the modern is striking enough but given an open, fertile soil, it becomes even more accentuated.

Under these conditions, those trying heucheras for the first time will decide they ought to have had them sooner. With their pretty, evergreen foliage neat mounded clumps, when they flower they achieve perfection in form, with their countless little bells carried daintily on graceful, wiry sprays. They begin to flower late in May or early June and for five or six weeks make a fine sight. Often one sees sprays coming up here and there during later summer and into autumn. Apart from the main colours mentioned, other good varieties include the carmine red 'Sparkler', the rose-pink 'Freedom', coral-rose in 'Oakington Jewel', white in 'Pearl Drops' and 'Snowflakes' and crimson-scarlet in 'Firebird'. The cross between *Tiarella wherryi* and heuchera resulted in *x Heucherella* 'Bridget Bloom' which though preferring some shade has an astonishingly long succession of pink 18 in. sprays. This does not set seed, but true heucheras do. The seed is tiny, but not difficult to germinate, though it is rather a slow and tedious process to rear seedlings into flowering-sized plants. But whether from seed or from plants of named cultivars, those able to grow them will surely agree that my fondness for them is not misplaced.

DOUBLE PRIMROSES

by MARGERY FISH

Mrs. Fish is a relentless seeker of old-fashioned plants and those that are falling out of cultivation. Here she writes with affection about some old-fashioned primroses.

THERE is a renewed interest in double primroses, I am glad to say, and we all hope that some of the enthusiasts will manage to run to earth some of the old cultivars, which seem to be lost to cultivation. Of course they may still be hiding somewhere but the number of very old gardens decreases every year.

It used to be Ireland where we all hoped to find the missing plants but nowadays it is the other way round and I get more requests for rare primroses from Ireland than from anywhere else. Scotland, too, used to be a possible source but again there does not seem much chance of finding the very rare old plants there. David Chalmers of Blackbutts Nursery, Stonehaven, is producing some very good new varieties, such as 'Blackbutt's Splendour' and 'Wm. Chalmers', Maryfield Nurseries of Leslie, Fife, have an improved form of 'Bon Accord Gem', which they call 'Old Rose'. Mrs. McMurtrie of Balbithan House, Kintore, Aberdeenshire and Mrs. C. L. Emmerson of The Leeke, Limavady, Co. Derry, N. Ireland are long-established growers of double primroses.

The two most common cultivars, *Primula plena lilacina* and *P. alba plena*, seem to do well in East Anglia, but the double white, which used to be the easiest and most common does not appear to be as strong now as the double lavender. I am surprised that the fairly recent double primrose 'Our Pat' is not often offered by the trade. This was discovered in a batch of *P. juliae* seedlings at the Daisy Hill Nurseries, Newry, and is the best performer I have, increasing generously and flowering well. It has crimson-bronze foliage rather like a 'Garryarde' primrose and neat, violet-coloured flowers. It is a late flowerer and prolongs the double primrose season.

Of course, *P. 'Our Pat'* may not continue to be so co-operative, and it may lose its vigour just as many of the double whites have done. I used to find these even easier than 'Our Pat' but they seem to have lost their stamina of recent years—unless a less vigorous strain has somehow got into cultivation. They used to be very easy with long, sturdy roots and a vigorous habit of increase, but now most of the plants available have gnarled and woody rootstocks, few fibrous roots and have to be coaxed into a healthy interest in life.

I have discussed this problem many times with Major Charles Taylor of Glazeley Gardens, Bridgnorth, who has built up enormous stocks of many double primroses, and he too finds that different cultivars come and go and often those that used to be the most plentiful are becoming quite scarce.

There was a time when *P. 'Marie Crousse'* was the easiest double primrose

to cultivate. It was almost the first I had and had a wonderful way of increasing by dozens of tiny growths, which made it easy to distinguish when not in flower. The centre of the plant is usually a mass of tiny crowns which can be separated and grown on in boxes of good rooting soil. If time and quantity are no object the plants can be left until the new growths are big enough to be taken off in the normal way, but this takes longer. There was a time when I had more plants of 'Marie Crousse' in the garden than any other double, and if I tried to buy double primroses it was 'Marie Croussx' that I was always offered. It was never a field crop like the double white and double lilac but it used to be easy to find growers with odd dozens to spare. But not now. I have a large bed which was normally full of *P. 'Marie Crousse'* but now there is nothing in it but a few poor divisions which dwindle and then disappear.

As with many other difficult plants I think we often fuss too much about them and it would be better if we just planted them in the best possible conditions and then forgot about them. It sometimes works. I made myself forget I had a plant of *P. 'Crimson King'* tucked away in a peaceful, shady corner and was delighted to find after about two years that it had increased sufficiently to be divided. Unfortunately this treatment did not work with *P. 'Marine Blue'*. I kept it for a year or two, checking it occasionally in the waiting period but doing nothing but give an occasional top dressing of peat, and then after a normal period of forgetting it I found it had vanished completely, leaving no trace whatever. Why I still have double pink *juliae* I do not know. I never touch it or change its position in the garden and am always surprised when I push aside the fallen leaves and find it is still there.

P. 'Bon Accord Lavender' increases quite well for me and its compact and rather rounded deep lavender flowers are a delight, but *P. 'Bon Accord Lilac'* has quite disappeared. Some growers are very successful with *P. 'Bon Accord Cerise'*, which is scented, and even succeed with the more choosy *P. 'Bon Accord Elegans'*, which needs a rich diet to produce its orchid-pink flowers, which are edged and flecked with white. I have never had success with either of these but the lovely off-white *P. 'Bon Accord Purity'* grows well enough for me to divide very occasionally.

Some primroses that do rather well have disappeared because of that success. Double primroses should be divided when they become congested and it is usually advised to split them up every two years at least, but one can overdo the business of division. When such cultivars as 'Arthur du Moulin', 'Downhill Ensign, and 'Crathes Crimson' have increased rather well I have felt that I can listen to the pleas of the importunate and divide them far more often than they really like. *P. 'Castleberg'* has now been sulking for several years because of such treatment and 'Orchid Pink', which is sometimes erroneously called *P. 'Chevithorn Pink'*, and seemed to have inexhaustible energy has now been "resting" for a year or more and shows no sign of getting back its earlier vigour.

I would call *P. 'Tyrian Purple'* a fairly easy cultivar if one has patience to leave it to make steady increase in rich soil. I have grown it for years but it was only after I had planted in a place where I used to have a dump of farm-yard manure that I discovered what good feeding would do. It has very large flowers of bright purple, with a suggestion of crimson, and particularly fine, very bright green leaves.

P. 'Red Paddy' is another old favourite that has its ups and downs. It has the neatest, most symmetrical flowers I know, rather flat and very dainty, and delicately edged with silver. It was given to me first by a friend who had a large quantity in her garden, and recently I learned that she had lost them all. I also have lost the strain I had from her but luckily have found other sources and I think a more reliable strain.

P. 'Chevithorne Purple' came from Mrs. Ludovic Amory's garden, Chevithorne Barton, near Tiverton. It used to flourish there but there are none there now. It is a most beautiful plant with flowers so large that the trusses often bend the stems with their weight. The colour of the petals is crimson-purple, they are edged with white and have a few symmetrical white spots. The last plants I saw in flower were in a cool greenhouse and I think this is a good way to keep such a treasure. I have lost it several times and hope I have found a good place—at the bottom of a low wall facing east—for the plant I was given. It flowered last year but this season I saw very few double primrose flowers because the birds suddenly attacked them and by the time they were all cottoned only the late flowerers were saved.

The turquoise blue double primrose 'Buxton's Blue' I have never seen. Some years ago I was told that some plants that agreed with all the descriptions of this primrose were sold in Dorchester Market but no one could tell me who the seller was. I tried the market officials and made enquiries at all the local villages but no one knew anything about them and I often wonder if the whole thing was imagined.

No one could call *P.* 'Prince Silverwings' beautiful but its workmanship is superb. The ground colour of the petals is crimson lilac, they are edged with white and flaked with white, and have an orange tint at the base of each. It shares the distinction with *P.* 'Arthur du Moulin' of being a pollen bearer. It is not a very full double, in fact it is sometimes almost single, and I do not think anyone could call it beautiful although it is certainly unusual.

Nor do I consider 'Castleberg' or 'Curiosity' beautiful but they are rare and interesting. I have never run across hybrids of either of these but I still have a few 'Prince Silverwings' hybrids and to me they have lost the sparkle of their parent.

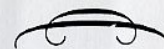
The double sulphur primrose has always been scarce. I am often asked if I have 'Cloth of Gold', which is a named form of *P. sulphur* and I always reply that I am more than grateful to have a scrap of any double sulphur and have never been sure that any of my plants have been this named cultivar.

A friend in Northern Ireland has recently given me a plant of a double sulphur that I am assured is a much more free growing strain than those we usually see. It was found in an old cottage garden and was thought to be a chance sport from a wild primrose. I hope it will live up to its reputation for generosity when it settles down in my garden.

The plant that has caused more heartburnings than any other because of its excess of temperament is, of course, the deep crimson 'Madame de Pompadour'. It is the primrose above all others that all enthusiasts seek and having found endeavour to please. It has always been unpredictable, growing with real abandon for some gardeners and refusing completely for others. I have known several growers who had great success with it, producing plants as plump and robust as little cabbages, but I do not know anyone who has good

stocks now. It had nothing to do with soil, I think, or position, for the growers have been as far apart as Scotland, Ireland, Gloucestershire and Kent. I always took the greatest trouble with the plants so generously given me but I could not keep them whatever treatment I tried. For a time the single deep red primrose, 'Miss Massey', of which 'Mme. de Pompadour' is the double form, did very well for me. I distributed it because I knew a nursery where I could get more but when I found all my plants had disappeared there were no replacements to be had, for the nursery had lost all theirs too.

There is no definite rule about pleasing double primroses, but growers seem agreed that regular division and constant change of position are necessary. Shade, moisture and humus are also essentials, and I find that we get the best results in beds that have old farmyard manure worked in the soil below the roots and a mulch of compost or old manure spread on the surface. I believe that it was the late Ernest Ballard who recommended growers to cut off the ends of the roots when dividing primroses, to encourage new root growth. We do more than this and plant every one with a generous allowance of peat and sand mixed in the soil, but even with all these precautions there is no certainty of success.



The Spirit and Philosophy of Japanese Gardening

PEGGY KURATA writes from Canada

I DO not know exactly by what right I discuss the spirit and philosophy of Japanese gardening, for I am of English birth and more naturalist than gardener. Twenty years ago, however, when I married my Japanese-Canadian husband, I realized the value of trying to understand the spirit and the feeling of being Japanese, something that to me is far more important than just learning the tongue, albeit having the deepest respect for those able to master this very difficult language.

When we speak of gardening in any land or age, most of us feel that it can be summed up in the few words, "man's subjection of nature for his own aesthetic or economic needs". So when we speak of Japanese gardening, our thoughts may rest upon vast stroll gardens or landscapes, small tea gardens, austere stone gardens, or upon those miniature landscapes created in a tray (bonkei or bonseki); upon bonsai (the culture of dwarfed and trained trees) or even, for that matter, ikebana, the art of flower arrangement as practised

by the Japanese. There are numerous excellent books available on all of these crafts, written in English by Japanese or translated from the Japanese. They are well illustrated, and make it possible for any patient and skilful person to reproduce a beautiful garden—or bonsai or ikebana: but herein lies the problem, and it is a problem both of creating and of viewing.

Japanese friends come often to our place in the country to wander through the woods or by the little river that winds through our land. So many times they exclaim, "This is just like Japan"; or, as we rest by some weathered rock, moss-covered and fern shaded, they will say, "This is a little Japanese garden".

Whether we wish to make a Japanese garden or simply take joy in the creations of others, we must first learn to look and to feel. Somewhere, back in the mists of distant ages, the first known people of the lovely Japanese islands were nature worshippers. Shinto made every beautiful rock and tree and river the dwelling place of a kami or spirit, and from this developed a veneration for life and living creatures and for all natural beauty. Buddhism, which came from China in the sixth century, taught respect for life, so that the two great teachings had a similarity in their reverence for living things if not in their basic philosophies. Japan, today, is more Buddhist than Shinto, but Japanese still visit and maintain Shinto shrines. Shinto is the faith of the Royal Family, and the Shinto spirit is graven deeply in the Japanese mind and character. One still may find sacred rice-straw ropes, 'shimenawa', placed around ancient and venerated trees and stones.

The late Major-General F. S. G. Piggott, in his autobiography, *Broken Thread*, tells of the loyalty of the ginkgo (Icho) tree to its owner, and again, of the spirit of an old man who, upon his death, took up dwelling in a cherry tree.

In the early days of relocation, after the Pacific War, when our people came from the West Coast of Canada to build afresh in Ontario, my husband, in his capacity of lawyer, helped many of them in the purchase of new homes. On two occasions, families refused to buy exceptionally good houses because a tree in the front garden was dying. "It means," they explained, "a death in the family in the near future".

A strange experience befell us, some years later, when we ourselves moved to a new home and I transplanted a large mulberry tree to which I was greatly attached. To my sorrow, it did not take to the new garden but faded and died, and my husband cut the trunk level with the ground. The following year, fresh life stirred in what we had thought were the dead roots, and from them arose five fresh young shoots, one for each member of our family. The five-trunked mulberry tree has grown and flourished ever since. But this is not Eastern mysticism beloved of novelists; it is that deep nearness to the earth and growing things that is felt by all who have devoted labour and love and years to their gardens and to all the dwellers therein. Of course, there are modern, Western-style gardens in Japan, and many of the old ways of thinking have been discarded by young Japanese, but one hopes that the old traditions will not die easily. Like our mulberry tree, may they one day 'come to life' again.



The Garden of the Jojuin Temple, Kyoto. This garden is believed to have been built at the beginning of the Edo Period. The rock compositions and the stone lantern are placed on the island in the middle of the pond, and the artificial hills are arranged on the mid-slope of Mt. Kiyomizu. This simple and dignified garden has adopted the gardening technique known as 'shakkeu' (borrowed scene) and enhances the beauty of the garden effectively by borrowing the natural landscape in the background. It is generally believed that the garden was laid out by Soami and was supplemented by Enshu Kobori, but there is no record to confirm this.

The traditional Japanese landscape garden is the reproduction of some beautiful scene, not with photographic exactitude, but in the way that an artist paints a picture. It is a spiritual and visual harmony of rock and moss, trees and shrubs, water or stones representing water. The tea garden is smaller, with stone lanterns, water basin, chiri-ana, stones of various types and purposes—all preparing one for the ritual of chanoyu or tea ceremony. The stone garden is built of rocks, their shape and arrangement being of symbolical significance, and sand or small stones raked in various patterns. Often the scenery of the surrounding country is an integral part of the whole garden.

Present-day gardeners depart from the strict rules and conventions that from time to time have governed the making of gardens, just as modern flower arrangers tend to break away from the rigid laws governing the older

schools of ikebana. But none has relinquished the spirit. Let us look at the small but lovely stone garden adjoining the Buddhist Church in our city. Hideo Okawara, the Japanese-Canadian landscape architect who made this garden, describes it as 'Canadian'. There are two groups of rocks, surrounded by raked pebbles. "The biggest rock, pointing upward," Mr. Okawara explains, "represents the ultimate—Buddhists call it 'enlightenment'—and the subordinate, smaller rocks represent man—the pebbles, the universe. I want the garden, when viewed from the nave of the Church, to give a feeling of serenity and tranquillity. It is the spirit of the garden that is important." The rocks are arranged to cast irregular shadows according to the hour of the day and the position from which they are viewed—but always, there is the sense of peace—a detachment from the things of the world. This is the true spirit of the garden. There is no inward strife nor tumult when beholding an ancient rock, nor a tree gnarled and bent with age: time ceases to matter.

Deep in our woods, my husband and I have chosen places where nature has 'grown' an old boulder and caused the mosses and ferns and sometimes a twisted leatherwood to flourish about it. Leatherwood (*Dirca palustris*) is a very small tree, often beautifully shaped and bent by the snows and winds of winter. It is a native of our Southern Ontario bush, and so fastidious in its choice of habitat that, growing freely in our woods, it does not so much as appear in the little sanctuary bush barely two miles distant. Here, in these places, we have set small "ishi-doro" (stone lanterns), and by one, a natural rock resembling a chiri-ana. Chiri-ana is part of the tea garden, a stone in which is a hole some 8 in. in diameter and 8 to 10 in. deep. Bunches of green pine needles or black tea branches are placed in the hole, into which one deposits all troublesome and unclean thoughts before entering the tea house. The hole in our own stone is too small and goes completely through the rock; moreover, we have not yet built a tea house. But we come here to meditate, and leave behind us the petty cares and troubles which all too often infest the human mind. Then, we go on our way in peace.

By the stream, one again seeks and finds tranquillity and harmony. A group of wild blue iris around a stone, reeds upon a tiny island, the light and pattern upon the water: the mystery of the ripple that is there and vanished in a moment—not destroyed, but become one again with the water from which it was formed. And come the winter, one views the snow in all its exquisite beauty, for snow, to a cultured Japanese, is part of the garden, peaceful and silent.

In places such as these, one should not 'make' a Japanese garden, but leave untouched the work of the greatest of all great gardeners.

A consciousness of the ever-turning cycle of life pervades the spirit when gazing upon an ancient bonsai, a cycle of life so vast, and yet so small. An article on bonsai in the *Gardeners Chronicle* of June 22nd, 1966, distressed me greatly in that it contained so much of the Western mind's worst misunderstanding of the East. Of course you can dwarf trees in two or three years (or pick up seedlings in the woods), trim and train them to the desired shape: of course you can purchase these little plants ready-made—but they are not bonsai, they are merely miniature trees in the limited sense of the



East garden of Heian Shrine, Kyoto. The garden containing a roofed 'Taihei-kaku' bridge was built by Jibei Ogawa in 1895. Weeping cherries and azaleas that surround the garden add colour in spring to this peaceful setting.

words. 'Bonsai' suggests not only the tree skilfully dwarfed by traditional means, but all the love and care and nurturing that have been lavished upon it; all the dignity and tree-wisdom of the years, the spirit and the life. They tell a beautiful story in Japan, immortalized in a 15th century No play, "Hachi no Ki", the story of one, Tsuneyo Genzaemon, a former retainer of the Hojo regent, Tokiyori. Genzaemon, despoiled of his estates by an unscrupulous kinsman, went forth into impoverished retirement, taking with him only his three bonsai, a plum, a cherry and a pine (by accident or design, history does not relate; but the plum signifies courage and dignity in adversity, the cherry, the spirit of the samurai, and the pine, endurance and longevity). One bitter winter day, in a great snowstorm, a travelling priest sought shelter in Genzaemon's hut. There was only a little millet to eat, and no wood for a fire. The priest complained of the cold, whereupon Genzaemon cut down the three precious bonsai to provide the only possible warmth for his guest. The guest turned out to be the Regent himself, in disguise, who rewarded Genzaemon's sacrifice with the return of his lands and the addition of three more fiefs, one for each bonsai.

Although not a gardener in the sense of being a landscape artist, the grower of kiku (chrysanthemums) understands and is best understood by his brother fancier of the West. At the time when my husband's grandfather was

HARDY PERENNIALS IN FRANCE

SERGE VADE

until recently the Chief Editor of *L'Ami des Jardins*

Translated by Kay N. Sanecki

THE English have a justifiable reputation of being the most enlightened of amateurs when it comes to growing hardy perennials; so to speak about these plants to English gardeners presents many difficulties to a Frenchman! In fact, when we start to work with these plants it is your own vocabulary that we turn to most often. Like you, we speak of the 'mixed border'. Therefore I must take care in writing for you on this subject not to talk down to you or make it sound like a lesson; so I will tell you how we use these plants in France and why I believe we are turning to them more and more.

The Well-Established Ones

Do not run away with the idea that hardy perennials are something new to us. They have constituted an essential element of gardens for a long time and in 'le jardin de curé' as we say, one has the image of a garden surrounding country presbyteries. Such country gardens are generally made without any landscaping, but are always beautifully maintained by loving hands that tend the plants for their own sakes, sometimes without even knowing their names.

The plants have in some instances, no doubt, been acquired through the trade but they are more frequently flourishing there as presents or perhaps an exchange between friendly neighbours. They have been planted haphazardly as they arrived then moved as space has become available and thus the apparent disorder, quite irrational but none-the-less effective and picturesque, makes full play of their diversity of height and colour.

There you would not find any recent cultivars but many old forms of bellflower, day lily, shasta, Michaelmas daisy, cornflower, larkspur, flag iris, paeony, blanket flower, lupin, sunflower and many other hardy plants of this kind. Rock cress, gold dust, snow-in-summer and lamb's ear are also used as border plants.

It is obvious that perennials have long been popular in rural areas but it is only in recent years that they have been used more in town and suburban gardens.

Traditional Designs

One must understand that until the last decade, and particularly in towns, public gardens and estates, the French have remained faithfully attached to their traditional geometric designs. In this respect they feel that a block

spending too lavishly of his substance on kiku in Japan, my own grandfather was indulging his limited extravagance in the Golden Flowers in England! How close is East to West! There are many tales of kiku in Japan. One is the story of two brothers who, inseparable from birth, finally had to go out into the world, each to seek his own fortune. As a parting token, each took half of a favourite kiku with him. When it came time for the plants to flower, each bore only half a blossom.

Ikebana is full of spirit and symbolism, requiring a book in itself (and there are many excellent ones available). The arrangement is a work of love as well as of art, and it is quite unimportant whether or not the arranger grows his own flowers. Ikebana consists of three main points—in Confucian terms, TEN (heaven), CHI (earth) and JIN (man): in Buddhist, SHIN (spiritual truth), SOE (harmony) and TAI (material substance). The life of the flower is all important and care must be taken to prolong that life. Every flower has a character and meaning of its own. The lotus is used for Buddhist funerals; the pine, bamboo and plum for New Year; iris for the Boys' Festival and peach, cherry blossom and yellow mustard flower for the Girls'. Since the dawn of time, Shinto has used only the green sakaki (*Cleyera ochinacea*), the sacred tree, leaves, branches and even root. The loved yamabuki or Mino hana (*Kerria japonica*) immortalizes the Lord Ohta Dokan, who built, in 1456, in old Edo, Chiyoda Castle on the site of the present Imperial Palace. Overcome by heavy rain while journeying through the forest, he stopped at a peasant's cottage to ask the loan of a rain cloak. The lovely daughter, Mino, (hence the name, Mino hana, or Mino flower), offered him a spray of the golden blossoms on a bamboo tray, a graceful way of telling him, by reference to an ancient poem, that they did not possess a rain cloak.

Another old story tells of a hungry and weary pilgrim approaching a village and ringing his bell to announce his coming that people might bring him some small offering of food or shelter. But when he saw that his bell disturbed the frail blossoms by the roadside, causing them to fall, he ceased to ring his bell, and went upon his way hungry.

An oft' quoted haiku tells of the maiden who went to the well for water but

“The convolvulus' fragile tendrils twine
Around the rope with such bewitching spell,
I cannot bear to break the tendril's vine
But draw my water from a neighbour's well.”

Because flowers were believed to be themselves spirits, the old Buddhist festival of Hana Matsuri, on April 8th, was celebrated for all the flowers used throughout the year. Whether or not this is still so, I cannot say—but one likes to hope that it is.

planting must be round, square, rectangular or oval and wherever possible, symmetrical to a fault. Formality is even more acceptable if it is clearly defined by an edging plant such as clipped box. Grass is only rarely used in such a design, the free spaces far more frequently being laid with gravel.

I am speaking of 'Mr. Everybody's' garden, and not of those belonging to the more enlightened amateurs or where professional landscape architects are employed; they are the exception rather than the rule. In these patterns of the formal gardens the vegetation is always a little exotic or fantastic and it is evident that perennials are something of a handicap. Generally one prefers plants that are more formal and with a long flowering period; in short, what you call bedding plants. *Ageratum*, *begonia*, *coleus*, zonal *pelargonium*, *petunia* and *zinnia* are used for summer effect and *wallflower*, *forget-me-not*, *pansy*, *daisy* and bulbs for the spring.

But it is fair to say that the geometric lay-out so beloved by our fathers is gradually being replaced by a freer and more natural domestic form.

The 'Green Space'

Our new generation of amateur gardeners are discovering at last that the beauty of a garden is not necessarily bound up in some regular treatment. Our specialists' horticultural magazines, and indeed, many women's magazines are contributing largely to popular knowledge about gardens and the little 'green space' and providing some guide as to the choice of plants or even the design.

The abundantly illustrated nurserymen's catalogues work together for good to spread knowledge of both species and cultivars hitherto unknown, and therefore not much used. In a few years some of our amateurs have become almost connoisseurs and gardening will for evermore be well established among the main hobbies which Frenchmen follow passionately. Surely this is one of the better results of the change in circumstances of modern life!

This new style in the conception of gardens and the better education of the public are very favourable to a broad utilisation of hardy plants, the popularity of which increases from year to year. The same fresh interest is also being shown in shrubs and lawns.

Less Maintenance

The vogue for permanent or semi-permanent planting is bound to have its followers because it directly simplifies the maintenance of the garden. For us, as for you, without doubt it is difficult to find skilled help to keep abreast of the work and we have not the time to do it ourselves. The use of perennials to form a permanent bed or border is the obvious answer. For the same reasons, perennials are particularly adaptable for use in the gardens of second homes or weekend cottages—the number of which is increasing here as it is with you. It is estimated that there are actually more than a million and that the number will double in the next ten years. A garden only used at the weekends or during holidays has to look after itself as far as

possible. The three permanent features, grass, shrubs and hardy perennials seem to solve this problem, provided that a suitable choice is made for conditions prevailing in the district.

Some Restrictions

Meanwhile French gardeners who know your English gardens can verify that for identical varieties, given equal care many perennials give a longer and more prolific display with you, especially early in the season with such plants as *iris*, *lupin*, *oriental poppy*, *paeony*. This factor becomes even more evident as the season advances because of the drier atmosphere here and attendant lack of humidity. Such plants as *phlox*, *delphinium*, *Alwood pinks* and some *sages* are noticeably affected in this way.

So, if you have sometimes envied us our climate, so much drier than yours, remember the advantages your maritime climate brings to your gardens.

This is not only true for hardy perennials but for grass as well, and we can only hope to achieve results comparable with yours in some districts influenced by the English Channel or the Atlantic. In the greater part of France it would be difficult to dream up a floral decor using only perennials at any time of the year.

The relative brevity of flowering of some splendid perennials here is compensated by their usefulness and therefore will not prevent them from being used in modern gardens. Thus we grow all the kinds with which you are familiar and which can be found in the numerous nurserymen's catalogues that there are in England.

Mixed Planting

The remedy lies for us in the association of these plants with other long-lasting species carefully chosen to harmonise and mix well with them. At least a third of the whole planting should be perennials for effectiveness. Certain annuals lend themselves particularly well to such associations; annual *aster*, annual *chrysanthemum*, *Mexican aster*, *Californian poppy*, *mallow*, *marigold* (pot and French) *spider flower*, *zinnia*, *ageratum*, *scarlet sage* and *snapdragon*. When the summer annuals are over they are replaced either by biennials or bulbs, say *daffodils* or *tulips* for the following spring.

Dwarf and semi-dwarf *dahlias* with small flowers either single or double also provide good companions for perennials and are a category of plant that seem to gain popularity each year, not only because of their ease of culture but because they can be grown on year after year.

No account of perennial planting would be complete without mention of roses. They really are most interesting and naturally the effect achieved by their use is excellent and quite different from that when the bedding plants or *dahlias* are used. My personal preference is for the hybrid *polyantha* or *floribunda* because of the duration of their flowering season and the sheer abandonment with which they flower. On the other hand shrub roses form a good background because of their single or semi-double flowers.

In the Midi

All that has been said is true for the greater part of France. The inconvenience of atmospheric dryness becomes more evident as one travels towards the south, especially in the continental zone to the east of the Massif Central. The Côte d'Azure is a region which has a privileged climate at all times and one which supports a characteristic sub-tropical flora. The only classical perennials to flourish there are those that can resist the intense dryness and consequently we use a number of plants normally associated with the rock garden—aubretia, cerastium, dianthus, iberis, helianthemum, lavender, nepeta, oenothera, etc. Among the taller plants hemerocallis, iris, lupin, phlox, and *Leucanthemum maximum* give satisfactory results, although the flowering period is undeniably short. However, a number of species tender in other parts of France are in fact better adapted to this wonderful climate; such plants as *Anthemis frutescens*, gerbera and sages such as *Salvia leucantha* and *S. bracteata* and many others.

The plants that most astonish the French themselves who live in the north, when they visit the Côte d'Azure, are the pelargoniums, both zonal and ivy-leaved because these plants assume shrub-like proportions and flower continuously.

So, from the extreme north of our country to the south these perennials which constitute for us the greater part of the reputation of the English garden are beginning, and indeed, increasing to conquer our own gardens.

What a wonderful kind of co-operation!



BROWSING

by DENIS HARDWICKE

LOOKING back over the past decade or so I find that certain books on hardy plants stand out as mountain peaks above the mists of memory. Many have been published and this resumé can only be a personal choice, so if I have left out your own particular favourite I trust that I may be forgiven.

Those who were fortunate enough to know the late A. T. Johnson's garden in North Wales during his lifetime will, I have no doubt, treasure *The Mill Garden* in which he describes a great variety of plants that flourished in that beautiful hillside setting with its rapid flowing stream. Admittedly, he describes many trees and shrubs, but he knew his hardy plants well and had a plantsman's eye for a particularly good form. If I may mention one other old favourite, before coming to contemporary authors, it is Dr. Fred Stoker's *A Gardener's Progress* which is illustrated with most attractive and accurate line drawings. This was published in 1938 so I am stretching a decade somewhat, but he was a connoisseur of hardy plants, as well as of trees and shrubs, and if you do not know this work I am sure you will find it fascinating, if you can find a copy. His garden was at Golding's Hill, Loughton, Essex.

Now for books devoted entirely to hardy plants. I have a dozen or so beside me and as Alan Bloom has done more than anybody else to kindle an interest of recent years in these plants—as Tom Rochford has done with house plants—it is with pleasure I have another look at his excellent book *Hardy Perennials* (Faber, 1957), an admirable volume which covers the whole subject and is liberally illustrated. It is a first-class book of reference and his *Perennials for Trouble-free Gardening* (Faber, 1960) is another most useful book containing lists of selected plants for special purposes. In his *Hardy Plants of Distinction* (Collingridge, 1965) he discusses the choicest species and modern hybrids which are now available for the discerning gardener.

Another book to which I frequently refer is *Collins Guide to Border Plants*, by Frances Perry, published in 1957. This authoritative work contains many illustrations both in colour and monochrome and there are specimen planting plans, as well as good lists of plants for special purposes. The main part of the book is an alphabetical list giving full descriptions and approximate heights of a great number of plants.

Hardy Perennials, by the late A. J. Macself, V.M.H. (Collingridge, 1950) is a book which I know well having recently spent a considerable amount of time revising it and bringing it up to date. It was a popular, well-illustrated book and I can only say that I hope the new edition will be as well received when it appears.

R. D. Meikle's *Garden Flowers* (Eyre and Spottiswoode, 1963) is a neatly produced volume of nearly 500 pages embellished with a great many line drawings and reproductions in colour of Laura M. Ripley's detailed and

accurate work. This is number six in the admirable Kew Series and is a valuable reference book, containing a useful glossary.

Flowers in Colour, by A. G. L. Hellyer (Collingridge, 1955) proved a most popular book. It contains nearly 300 reproductions in colour from work by Cynthia Newsome-Taylor, as well as black and white reproductions from wood engravings. There are concise descriptions of each plant illustrated and this book solves many a problem of identification.

Margery Fish has produced a number of most readable books mainly about hardy plants she grows in her Somerset garden; all are attractively illustrated: *We Made a Garden*; *An All the Year Garden*; *Cottage Garden Flowers*; *Gardening in the Shade*; and *Ground Cover Plants*, all published by Collingridge, and *A Flower for Everyday* (Studio Vista).

A Chalk Garden, by F. C. Stern (Nelson, 1960) is a most interesting account of Sir Frederick Stern's famous garden in a chalk pit at Goring-by-Sea, Sussex. He divides the book into months and there are also special chapters on paeonies, lilies, daffodils and roses. Christine Kelway's *Gardening on Sand* and her *Seaside Gardening*, both published by Collingridge, deal with a great variety of plants that the author grows and knows well.

Then there are invaluable books on particular genera, such as *The Iris*, by N. Leslie Cave (revised edition, 1959, Faber); *Primulas in the Garden*, by Kenneth Charles Corsar (revised edition, Geoffrey Bles, 1952); *Hardy Primulas*, by H. G. Lyall (Collingridge, 1959), and *Florists' Auriculas and Gold-laced Polyanthus*, by C. G. Haysom (Collingridge, 1957).

Perhaps not well known in this country but a most useful compilation is *The Peonies*, edited by John C. Wister, and published by the American Horticultural Society in 1962. It deals with both herbaceous and tree paeonies with descriptions of a vast number of elegant species and hybrids. There are also chapters on cultivation, propagation and pests and diseases.

Herbs are useful, interesting and decorative plants, many also being refreshingly aromatic or fragrant. The revised and enlarged edition of Margaret Brownlow's *Herbs and the Fragrant Garden* (Darton, Longman and Todd, 1963) is a great improvement on the first edition. The many reproductions in colour are an attractive feature and the various plans of herb gardens provide ideas on which to ponder. *Wild and Garden Herbs*, by Kay N. Sanecki (Collingridge, 1956) contains many pleasing line drawings with descriptions of numerous herbs and their cultivation. *Herb Gardening*, by Claire Loewenfeld (Faber, 1964) considers the subject at greater length and gives details of their culinary uses.

For those who read German there is an imposing volume *Die Freiland-Schmuckstauden 1*, by Leo Jelitto and Wilhelm Schacht (Verlag Eugen Ulmer, 1963). This is a handsomely produced volume containing some beautiful reproductions in colour and nearly 500 monochrome illustrations. The text is up to date and thoroughly reliable. Incidentally I tried half a dozen publishers in this country with a view to producing an edition in English but was unable to kindle their greed. I must admit and agree with their views that to produce in this country a volume of similar quality (even with the blocks already made) would price it out of the market, but it provides food for thought.

Herbaceous Perennials Between The Wars

by NOËL J. PROCKTER

MY real introduction and love of hardy herbaceous plants started after World War I, on October 17, 1926 at J. Cheal and Sons Ltd., Lowfield Nurseries, Crawley, Sussex. (This is not going to be an autobiography—so take heart!) I was then 15½ years old and my foreman was Mr. Tom Sargeant, who recently retired, as a Director, from George Jackman and Sons of Woking.

Enough, no more . . . At the time nurseries were starting to build up stocks after the war, though they were, I believe, nothing like as depleted as stocks were after World War II. Perhaps the first outstanding novelty to stay, still fresh in my mind was *Lupinus* 'Delight', (as I write I have Cheal's 1926 herbaceous catalogue in front of me) which was priced at 10s. 6d. per plant, quite a lot of money in those days, or it seemed so to me as my wages were only 10s. per week.

One could, I think, rightly say that 'Downer's Delight' as it was often called, was the forerunner or break in lupins before the Russell lupins came into being. Even though George Russell began hybridising blue, white and pale pink forms of *L. polyphyllus* as early as 1911. No doubt the pink one he used was *L. p. roseus*, for which Cheal's received an Award of Merit in 1904. Its soft rose-pink flowers, borne on 3 ft. stems from May to July. This, too, was still listed in 1926 at 1s. 6d. each. By 1927 'Delight' had dropped to 5s., and by 1931 to 3s. 6d.

The description of 'Delight' in the R.H.S. *Journal* of 1918 reads as follows:

" . . . the flowers of this beautiful variety are of a dull carmine-lake colour with a plum-purple red. They are borne on a fine bold spike".

However, T. Carlile at a later date has this to say about 'Delight':

"DOWNER'S DELIGHT, rich fiery rose, passing off to crimson lake, very distinct, has stood alone supreme in lupins for many years; in my opinion we shall soon have many of equal colour; but with better constitution; tall. 3/6d."

In 1929 we had 'Elizabeth Arden' raised by Gibson, a beautiful tan shade suffused yellow, and 5s. each by 1934. This was followed in 1930 by 'Chocolate Soldier', raised by John Waterer Sons & Crisp, a dark chocolate-purple with brightish yellow standards at 2s. 6d. each by 1934.

Helenium 'Crimson Beauty', also impressed me, it was such a neat little plant, very free flowering bearing bronze-crimson blooms on 2 ft. stems. It is still listed in catalogues today at 2s. 6d. each—1s. 6d. in 1926.

Some who read these notes may remember Harry Hemsley of Peas Pottage, near Crawley, who raised a number of sidalceas; one of his introductions is *S. 'Sussex Beauty'*. My 1926 Cheal's catalogue states:

"(New). This is by far the finest coloured of all sidalceas, flowers of a clear satin-pink shade, freely produced on good stiff stems 3 ft. high, and remaining in flower from July to September. Price 1s."

It received an Award of Garden Merit in April, 1935 and was one of the 64 hardy perennials listed in *Some Good Garden Plants*—1962. Then there was *S. 'Rose Queen'* raised by W. M. Wells, Jun., of Merstham, under the management of his son Ben Wells, who in those days was the Alan Bloom of the hardy plant world. I must qualify this statement, the collection gathered together by Alan Bloom since the end of World War II far surpasses the collection of plants at Merstham, good as the Merstham collection was prior to 1939.

Talking of Wells reminds me of that famous *Erigeron 'Merstham Glory'* with violet-blue semi-double flowers; '*Mesa Grande*' with large, deep blue flowers and the rosy lavender flowers of '*Quakeress*'. All 2 ft. tall and very free-flowering. I well remember cutting bunches of these three cultivars for summer flower shows. They lasted well when cut.

But what did thrill me was breathing in that penetrating musky scent when cutting phlox at 6 o'clock in the morning, the flowers being wet with dew. Among those we exhibited at shows were, the rose-pink '*Mrs. Milly Von Hoboken*', which is still listed, also that purest white '*Mia Ruys*', a perfect dwarf, both raised by Ruys of Dedemsvaert, Holland, a nursery which someday I hope to visit. The white-eyed salmon-pink '*Elizabeth Campbell*' was also a great favourite. '*Le Mahdi*' a deep violet-purple is still available, so too are the varieties '*Jules Sandeau*', an orange-pink, and the deep-purple-violet '*Iris*'.

Up to 1927 the Royal Horticultural Society held its Great Autumn Show at Holland Park. That year was to be my first and last. If my memory serves me correctly we had a circular exhibit of herbaceous flowers, which were surrounded by *Sedum spectabile* which received an A.G.M. in October, 1927. This is a plant I recollect seeing long before I started my nursery career. The flat pink flower heads which rise above the glaucous-grey foliage, are beloved by the bees.

Other plants which we were showing would have included *Aster novae angliae* '*Ryecroft Pink*' and no doubt '*Mrs. Raynor*', or the large rosy-purple '*Mrs. S. T. Wright*', the forerunners of '*Barr's Pink*', which I see is listed in Cheal's catalogue for 1931 at 1s. each, now 3s. Today we have '*Harrington's Pink*' and Miss Pole's, '*Lye End Beauty*' which received an H.C. in 1959.

The oriental poppies were also extremely popular between the wars, though in recent years they seem to have lost some of their popularity, a pity for they are so very colourful. They should, however, be planted behind a later flowering perennial to cover up their rather untidy state after flowering. The variety '*Lord Lambourne*' of 1920 vintage was a great favourite, its rich orange-scarlet flowers closely resembling a parrot-tulip. Then there was the scarlet '*King George*' with prettily fringed flowers, and the bright shrimp or salmon-pink '*Mrs. Perry*', which received an Award of Merit 60 years ago and is still listed in many catalogues.

In any article on herbaceous plants it would be unthinkable not to make mention of Thomas Carlile, or known to many of us as Tommy; who, like Amos Perry, knew a winner when he saw one. We should indeed be grateful to Amos and Thomas for the many good hardy herbaceous perennials we have in our gardens for to perpetuate the names of these two great plantsmen. What surely must have been Tommy's favourite introduction is

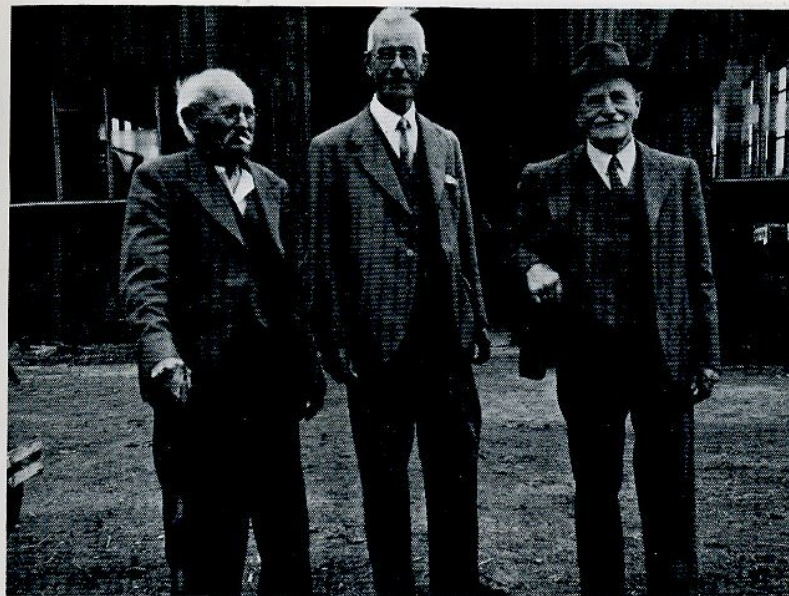


Photo. Noël Prockter.

Photographed together at Messrs. Bakers Nursery at Codsall in July, 1947, left to right: George Russell, Frank Bishop and Watkin Samuel.

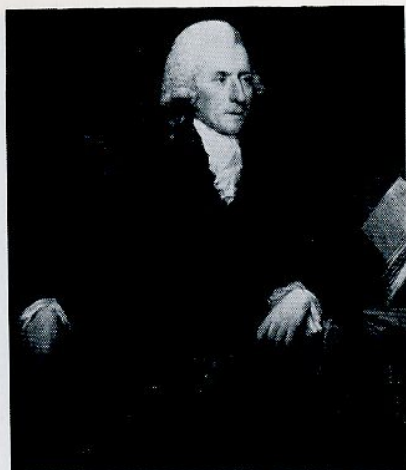
the belladonna delphinium '*Wendy*', named after his daughter, who now with her husband runs her late father's nursery. In 1949 Frank Bishop stated in his book *The Delphinium*: "*Wendy*, bright gentian tipped purple, height 4 ft.' In 1934 it was 2s. 6d. and in 1966 5s.

It is interesting to note that the delphinium '*Alice Artindale*' 1936, did not really find its way into catalogues and gardens until after the war. It received an A.M. in 1936 and another at Wisley Trials in 1945. In one of Carlile's catalogues it is priced at 5s. then, but today it is about 8s. 6d.

A plant which I remember we always showed at Chelsea Flower Show was *Trollius 'Orange Globe'*. This, I see, is listed in Barr's catalogue of 1913 at 9d., fifty years later in Carlile's catalogue 1964 it is 2s. 6d. It has rich orange blooms.

In a catalogue of 1932 are listed the Cotswold verbasiums which were extremely popular just before World War II. The pale bronze '*Cotswold Beauty*', the bronzy-yellow '*Cotswold Gem*' and reddish-fawn '*Cotswold Queen*' all with '(new)' at 1s. each'. Today, '*Cotswold Gem*' and '*Cotswold Queen*' are still offered.

As a finale to these notes I shall always look back with pleasure on the occasion when I photographed three great hardy plantsmen together: George Russell, Watkins Samuel and Frank Bishop, while visiting Baker's nurseries in 1947 on my first Delphinium Society's outing.



DIGITALIS

KAY N. SANECKI tells the story of Dr. Withering's work on the foxglove as a source of medicine in the eighteenth century. Left, the portrait of William Withering painted by C. F. von Breda (1759–1818) in the Nationalmuseum, Stockholm. It shows him holding the foxglove, and the book represents his writings on the plant.

Photo. Nationalmuseum, Stockholm.

MRS. LOUDON says of digitalis in *The Ladies' Companion to the Flower Garden* (1841): "The foxglove—If this plant were not a common British weed it would be thought very ornamental and it is, in fact, the Teneriffe sps. *D. canariensis* (syn. *Isoplexis canariensis*) with yellow flowers and *D. spectrum* with orange flowers that are favourite greenhouse shrubs". Details of cultivation are given and Mrs. Loudon races on to the next entry in her encyclopaedia. No mention of the other species and *D. purpurea*, a plant of some importance, is abandoned, merely as "a common British weed". As a weed it had its fame in the past, a story we will look at closer in a moment, but as gardens plant several species of digitalis are worthy of space especially in the plantsman's garden; notably perhaps 'Monstrosa', a nearly double peloric flower, *lutea* very variable but with a one-sided raceme and *ambigua* with a cylindrical spike of yellowish-brown mottled flowers. *Ambigua* was one of the parents of the hybrid *mertonensis*, a short-lived perennial raised in 1925 at the John Innes Horticultural Institute, displaying creamy-pink open-mouthed bells. About the same time a hybrid between *D. purpurea* and *D. lutea* gained an A.M. and became known, after some selection as 'Sutton's Apricot', a delicious, ripe apricot shade. Until that time the genus seems to have been singularly without gardeners' affections, but then followed the Shirley Hybrids raised by the Rev. Henry Wilkes as forms of *D. purpurea*, 'Gloxinioides'. The pinks and purples and white were lavishly spotted with chocolate. Once the Excelsior Hybrids were introduced by Messrs. Sutton and Sons in 1950 with the individual flowers around the stem, the foxglove had really come into its own as a stout-growing highly decorative biennial.

The Latin name *Digitalis purpurea* for the foxglove was first published by Leonard Fuchs, physician and professor of medicine at the University of Tübingen, Bavaria in his *De historia stirpium* (1542); a book finely illustrated

by woodcuts accompanied by comment on the curative effect of some 500 plants. He put forward the theory of digitalis being used effectively in the treatment of dropsy. However, it was not until 1661 that the plant was entered in the London Pharmacopoeia as a treatment for epilepsy and as a sedative, although it had apparently been used for some time prior to that date. The star role in the story of digitalis as a drug was played by Dr. William Withering, a man of wide interest and prodigious writing on many learned subjects during the eighteenth century. He became a Fellow of the Royal Society for his thesis and account of his work on the foxglove, and was so closely identified in men's minds with the plant that his memorial in Edgbaston Old Church is embellished with the flower. Further, in the manner of many botanist-physicians, his portrait shows him holding the plant with which his name was connected, and represents his book *A Botanical Arrangement of all the Vegetables Naturally Growing in Great Britain According to the System of the Celebrated Linnaeus*, the first book written in English describing all the known plants of the British Isles.

Born in Wellington, Shropshire, in 1741, William Withering returned there to general practice after studying medicine and qualifying at Edinburgh University in 1766, but soon he was asked by Erasmus Darwin to join a practice in Birmingham. There he was able to expand his work and investigations into the plant world which he had started as a boy in Shropshire. One feels that had William Withering not studied medicine he would have been an eminent naturalist for his interests ranged over geology, ornithology, and anthropology in addition to botany, and after his work on digitalis he discovered a mineral later named witherite in commemoration.

It was from a country family remedy collected in Shropshire that he first recorded the use of digitalis as efficacious in the treatment of dropsy and after years of experiment, necessarily slow because his patients were the guinea pigs, he published his theories. Unfortunately at the time, Darwin, being the more eminent man was credited with the work, and in fact appears to have accepted the accolade. Imagine Withering's inward rage and disappointment, but admire him for his continued amicable relationship with the man who had provided him with the amenities of the Birmingham practice, until the opportunity presented itself for him to claim the specific knowledge. This he did in reporting a case history which was, he says, "a case which gave rise to a very general use of the medicine . . ." and he carefully recorded the details, ending, "I have been more particular in the narrative of this case partly because Dr. Darwin has related it rather imperfectly . . . trusting, I imagine to memory . . ." What had, in fact happened, was that Darwin had called upon Withering's experience and practical help in the satisfactory accomplishment of the case. Later Withering wrote his thesis on the use of, and general introductory work concerning, digitalis for which he received worthy recognition. In later life his health failed and he lived in the south, continuing his study of botany and medicine side by side, and died in 1799 of consumption, the same year in which it was established that the primary action of the drug was upon the heart by the reduction of the pulse.

CAMPANULAS

by WENDY V. CARLILE

WHEN I was asked to write this article I thought: "Oh, now nice. There are lots of campanulas, this should be quite easy". But now that I have been dragged into the office and find myself faced with the job, I immediately come across a big snag. I suppose all my readers know what a campanula looks like, even if their knowledge does not go much further than a Canterbury bell-shaped flower. There is obviously plenty of scope for such an article, as there is no shortage of types, but botany and intimate detail do not come easily to me, and I now find myself faced with the problem of how best to describe these plants so that you may be able to recognise them. Perhaps, as a nurseryman, I should suggest that you buy one of each type but, seriously, there are plenty of nurseries and other places where you can see a comprehensive collection. I shall try to give them to you in some sort of height order, and I hope the alpine enthusiasts will not want to jump down my throat when I begin with some which are, technically, their province.

Surely, in June and July, some of the most showy plants in the front of our borders are the *garganicas*, *carpaticas* and *turbinatas*. The *garganicas*, which are anything from 4 to 8 in. high and will form themselves into cushions much higher than this once they are established, have star-shaped flowers, the bell not being very prominent, but they are always covered in bloom which, when they are doing well, completely covers the foliage. They are ideal for giving a mass at the front of the border. *Erinus* is a light shade of blue, 4 in.; 'Backhouse' is deep blue and *hirsuta* has a little larger flower but, as the name suggests, the foliage is covered with little grey hairs which gives it a greyish appearance.

Also among the tinies are the *pusillas*. These are miniature bells. (I recall during the war, when one could not get cake decorations, covering some of these with sugar to make quite successful glacé decorations for the top of the cake.) 'Oakington Blue' is the largest flowered, and does grow to about 6 in.; 'Warley Gem' or 'Warleyensis', as it is sometimes called, is a sweet, blue double-flowered plant, and there is also a little single white known as *pusilla alba*.

Going up the height scale a little are the *carpaticas* and *turbinatas*. *C. carpatica* 'Isobel' is about 8 in. high and has a large violet-blue flower; 'Loddon Belle' is bright blue with a large flower, and 'White Star' is about 9 in. high and most effective in the front of the border.

The flowers of the *turbinatas* are somewhat larger than those of the *carpaticas* but also low growing. 'Jewel' has rich violet-blue flowers at 9 in., and *grandiflora*, not quite as tall, has purple-blue flowers 2 in. across, while *pallida* is a quite distinctive pale blue flower which grows to 8 in.

Next in our grouping would be the *glomeratas*. Some gardeners avoid these, I know, because the plants are somewhat invasive, but they do make a very

bright patch. Although I have not seen it myself, I believe 'Purple Pixie', a recent introduction of violet-purple, which flowers in late summer and grows to about 15 in. is very pleasing. There is also a pale form of *glomerata* (*lilacina*), and a white one (*nana alba*) although the latter is not grown very much. Not being a botanist, I hesitate to say in which class 'Joan Elliott' should really be included, but it is similar to *glomerata* 'Superba' and we find the violet-blue flowers attractive. Also it is not nearly such a spreader as some varieties, which is an advantage.

Next, *latiloba*. This grows to about 2½–3 ft. with large bell-shaped flowers in June and July, 'Percy Piper' being the most popular variety, but I think I should add that he does run about.

Campanula 'Bernice' has a smaller flower than the *lactifloras* or *latilobas* and grows to about 2½ ft. with a mid-lilac blue double flower. When it does well it is an extremely good plant, but my only experience of it indicates that it is what is known in the trade as a somewhat "miffy doer" though still worth trying, in my opinion.

We now come to the *persicifolias* and I think there must be very few gardens which have been in existence for any length of time which are without some of these. Like so many of the campanulas, they do spread but are no trouble to get rid of and, if grown well and thinned out, will reach 4 ft., or even more, as can be seen sometimes at shows. These *persicifolias* have some of the largest individual bells of all. One of the favourites is the double white 'Fleur de Neige', and there used to be a double blue but I have not seen this for some time, but 'Moerheimi' is also a good double white. Of the singles, the white form is usually referred to as *persicifolia alba*, and this can be raised quite successfully from seed. The best-known of the blues is 'Telham Beauty', which is mid-blue and June flowering. These *persicifolias* will go on for years and years in the same spot, but if one wants the taller spikes with the larger sized flowers, the plants should be lifted each year and set out as single pieces.

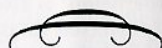
I will include the *latifolias* here. 'Brantwood' which grows to about 2½ ft. with a violet-purple flower is one of the better forms, and there is also a white at 3 ft.

Probably the *lactifloras* are the best-known of all the campanulas, and these grow from 3½–5 ft., depending upon soil and position. They have the great advantage over most cultivars that, although the clumps will increase in size, they do not run, and they are quite useful for cutting although all the campanulas (with the exception of the tiny cultivars) can be used for cutting. They can be raised from seed, and if you buy the ordinary *lactiflora* from a nurseryman you will get colour variations in any clump of four or five plants. *C. lactiflora* 'Superba', about 3½ ft., is a good deep violet. A complete colour breakaway in very pale pink is 'Loddon Anna', named after the first grandchild of the late Thomas Carlile. The *lactifloras* can be propagated by division or from top cuttings taken with a heel; this is best done in early spring when they are just starting into growth. Even if one grows *Campanula lactiflora* from seed, one may get a white bloom, though there is not a named white variety as far as I know.

Right at the top of the height scale is *Campanula pyramidalis*. This is usually treated as a biennial, however, as it dies after flowering, but it does not flower the first year, and if it can be grown in a side patch, or pot, and then transplanted to the flowering position in the autumn, the plant really is magnificent with spiky branches covered in masses of small bells. These can be blue or white. Quite often Parks Departments grow these very well. *Pyramidalis* and *lactiflora* both need staking, but with most of the other species, unless they are in an open, windy position, stakes should not be required.

There must be many cultivars, and indeed a few species, which I have not been able to mention, either through lack of personal knowledge or because I think they should be avoided. Coming in the second category is *rhomboidea*, a charming plant at about 3 ft. covered in medium-sized bells in late June. The foliage is fairly dark green and rather larger and shinier than in some varieties but, be warned, it can and will take over the garden if given the chance.

I am sure most of you have some of these campanulas in your garden already, indeed no herbaceous border is complete without this family, and I hope this short article will have whetted your appetite to try a few more. Do not be put off by the fact that they are what some people call "only Canterbury bells", for their types, colours and sizes are very varied and worthwhile. Try a few new ones in your border, and I am sure you will agree.



Harold G. Hillier Tells the Story of his Nursery

IT was 102 years ago last December that Edwin and Betsy Hillier, at the respective ages of 24 and 26, spun a trencher to decide whether to purchase a small local florist and nursery business in Winchester, then belonging to a Mr. Farthing, or to acquire a similar business near Bradford in Yorkshire. When Edwin Hillier settled in Winchester he was primarily interested in growing under glass florist's flowers and plants for sale in his local shop, any surplus being marketed, so the chalk and flints of the Winchester area were of comparatively small concern.

My grandfather had worked at Penton Lodge, Andover, the home of W. W. Cubitt who was Lord Mayor of London (further afield, Field Marshall Grosvenor of Richmond); Cobham Hall the seat of Earl Darnley; Sion House which still belongs to the Duke of Northumberland; and Studley Royal until very recently the home of the Marquis of Ripon. He also spent a period

at Osborn's Nurseries, Fulham, and the world-famous Veitch's Nursery at Chelsea.

He expanded the nursery side of the business by purchasing, in 1883, Shroner Wood, six miles out on the London Road. It was here on this 130-acre area that my father, with but meagre encouragement, started to plant a Pinetum. This would have been one of the best small pinetums in the country had not my grandfather sold the property in 1913, and many of the trees were subsequently felled for timber.

I remember the days when my father, my uncle and the staff used to work in the nurseries from 6 a.m. to 6 p.m. finishing at 4 p.m. on Saturdays, using hurricane lamps in the winter, early mornings and evenings. In the days of Shroner this meant a walk of 6 miles before 6 a.m., only if one was lucky was there a lift in a wagon. After a high tea my father would work in the office at the back of 95 High Street until 11 p.m., returning home to 18 Romsey Road in time for bed at 11.30 p.m. His supper was invariably two rock buns which he had thoroughly dried on the hot water pipes which heated the office at the back of the shop.

My fathers' first love was palms, and it was his great pleasure to visit the Palm House at Kew, but having a practical frame of mind he devoted his attention to hardy plants, especially conifers, of which he had a greater knowledge than probably any of his contemporaries.

There was only a little time between the development of the nurseries at West Hill and Shroner Wood and the purchase in 1899 of the site to be known as St. Cross Nursery. This area was devoted primarily to the cultivation of herbaceous plants, including aquatics, and alpins.

By this time my father, Edwin Lawrence, was exerting himself as a keen plantsman, whilst his younger brother, Arthur, interested himself more in the administrative side of the business.

Each year saw a slow but sure expansion of business which developed beyond the bounds of Hampshire. It was under my father's direction at the beginning of this century that we began cultivating an increasing range of woody and herbaceous hardy plants. With the break up in 1913 of Veitch's Nurseries and the devastation brought about during the first world war among the leading nurseries of Europe there was an opening for a nursery prepared to grow the vast range of unknown new plants which were pouring into cultivation from the collections of Wilson, George Forrest and Reginald Farrer, who for over 20 years had been sending home new material from the Far East. These collectors were followed a few years later by Kingdon Ward.

Then, as now, most nurserymen preferred to grow the well-tried popular plants assured of a market rather than spend acres and energy in endeavouring to propagate and grow new plants unproved as to their suitability to western gardens.

After the first world war I started work in the nurseries under my father. The war, as would be expected, had a very crippling effect on the nursery business. But gradually it was built up again and the land at Sarum Royal Nursery was added in 1928 and increased in 1936. It is on this area of reten-

tive stoney loam over chalk that we grow so successfully larger trees, above normal nursery size. A number of public authorities had asked for stout trees between 14 ft. and 18 ft. high. They had become tired of planting 8 ft. to 10 ft. trees and having them destroyed by hooligans. A tree of this larger size is too thick to be snapped by hand and the leader too tall to reach. It has proved economical to plant a tree once at the price of £5 rather than continuously replacing trees costing one fifth the price.

If I were asked what is our policy on the choice of plants we grow my reply would be, "Any species or variety of plant which may be grown out of doors somewhere in the British Isles". Such a policy is economically foolish, but judged by modern standards many things really worth doing are absurd.

One of our problems is to grow and sell sufficient popular items to enable us to grow the rare and obscure plant which is only asked for occasionally by collectors and botanic gardens throughout the temperate regions of the world. In this cruel, hard, materialistic world it becomes increasingly difficult to withstand relentless economic pressures and to grow the rare, difficult and often beautiful plant which is only sought by the connoisseur. We grow many hundreds of plants which are uncatalogued and perhaps only purchased once or twice in three to five years.

Since my father's death in 1944 and my Uncle Arthur's retirement two years later, I decided that further expansion could be made. In 1952 my wife and I left what had been my grandparents' home and moved to Jermyns House, Ampfield, and shortly after acquired our Eastleigh Nursery. Four years later I bought Broadgate Farm, Ampfield, and the area known as Bracken Wood opposite Jermyns. Three years ago we added Brentry House and Crookhill Farm, both adjoining Jermyns. Last year we were able to add Lower Crook Hill Farm, giving us in all an area of a little over 700 acres.

We have exhibited at every Chelsea Flower Show, and since the last war we have won a gold medal each year. During the past eight years we have exhibited successfully at Brussels, Rotterdam, Valenciennes, Paris, Hamburg, and Genoa.

It has for a great many years been our practice to plant out specimen trees, shrub and herbaceous borders so that we might have proved mother plants from which to propagate. At West Hill Nursery are many mature specimens planted at the end of the last century and the first quarter of the present century. Each year we replace casualties which have fallen victims to severe frost or old age.

At Chandlers Ford a similar policy has been practised, primarily for species which require a soil without free lime. In fact the purchase of the land at Chandlers Ford was hastened by a gift from Mr. Lionel de Rothschild to my father of some of the new large-leaved Himalayan *Rhododendron* species, which had been put into pots at West Hill awaiting a home.

As to the fourth generation, my elder son has been with me in the business for several years, and my younger son is joining the family business. John, the elder boy, worked for a year at Everton Nurseries, Lymington, and then after two years' National Service he spent six months working at Wayside Gardens, Mentor, Ohio, one of the largest retail general nurseries in the

U.S.A. When their activities were reduced by the seasonal winter freeze John transferred to Medusa in California and spent the remainder of the year working for the largest tin can wholesale nursery in America.

In view of the increasing need to trade with Europe my younger son has, for two years, been working in leading nurseries in Germany, Holland and France. He is now taking a horticultural course at the Essex County Institute, Writtle near Chelmsford, before joining the business.

It is perhaps worthy of note that the first male member of the fifth generation was born last year when his father and grandfather were at the Chelsea Flower Show, in fact the news was brought to me during a Council Meeting.

We were honoured by a Royal Warrant of Appointment as nurserymen and seedsmen to King Edward VIII, when Prince of Wales, and in 1952 to her Majesty Queen Elizabeth, now the Queen Mother.

Our most distinguished visitors were our late King, and Queen Elizabeth the Queen Mother when Duke and Duchess of York. They called at the West Hill Nursery and spent some time looking round. We had only three-quarters of an hour's notice of their intention to call!

The greatest botanist and horticulturalist with whom I spent a day round the nurseries was the late Dr. Ernest Wilson. He collected and sent home from China and other far eastern countries more plants than any other collector. Unlike so many academic botanists he was also a field botanist and plantsman and in this capacity stood head and shoulders above any other botanist of this century.

I have always considered the greatest amateur horticulturalist of this century, known to me, was the late Colonel Stephenson Clarke; he used to pay us an annual visit searching for new trees and shrubs for his garden and arboretum at Borde Hill, Sussex, where he gathered together what was probably the most complete private arboretum in the temperate regions.

I recall, too, W. J. Bean, one of the most distinguished curators Kew has ever had and the man who wrote *Trees and Shrubs of the British Isles*, which is still a standard work, visiting the nurseries in the mid-twenties and selecting several loads of conifers to commence the National Pinetum at Bedbury. Not long afterwards Bean invited me to Kew and gave me the opportunity of collecting propagating material to increase our collection and permit the distribution of plants which might otherwise become lost to cultivation.

During our Centenary Year (1964) we were honoured by a visit from Lord Aberconway, President of the Royal Horticultural Society, who planted a Dawyck beech tree to commemorate the occasion at our Jermyns Lane Nursery.

In our centenary year we were delighted to receive from the Royal Horticultural Society the Lawrence Medal for our exhibit of conifers staged on February 25th, which was in all probability the most complete group of conifers ever exhibited. The Lawrence Medal is awarded annually for the best exhibit shown to the Society in London during the year.

There are, of course, some problems. Customers do not appreciate the costs of production. Gardeners have all too frequently been classed as unskilled

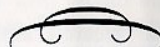
labourers, and compared with industrial labourers are poorly paid. The idea still exists that plants grow and reproduce themselves, and one can beg, borrow or steal a bit from a neighbour's garden, or get a packet of seeds from a local supermarket or chain store.

Our comparatively small organisation costs about £2,000 a week to maintain. One may still buy a well-grown tree, or specimen shrub, for less than £1, and the plant will go on developing and being a thing of constant pleasure for several generations. A person who may hesitate to spend a pound or less on a plant will think nothing of spending a larger amount for a bottle of wine for dinner, or two hours' amusement at the theatre, or a box of cigars.

I like to feel that international horticulture plays no small part in fostering goodwill between nations. We exchange plants with many of the leading botanic gardens, including several behind the Iron Curtain. Among the many congratulatory messages received on reaching our Centenary was one from the Horticultural Academy of the University of Moscow.

Whilst we take pride in our beginnings, our ups and downs, and in past progress, the future is as exciting as the past. We are a lively firm with a keen young manager, young foreman and young staff, and with new and ever improving machinery, new methods of propagation, cultivation and weed control, I foresee an expanding trade not only in this country but in Europe and beyond.

May more leisure mean more gardening, few pastimes are so rewarding.



THE HARDY PLANT SOCIETY

A NOTE in *Amateur Gardening*, August 27th, 1910 reads: "To those interested in the culture of hardy plants it will be pleasing to learn that a society for their special branch of horticulture has come into being. This occurred at Shrewsbury where a meeting of those specially interested in the culture and improvement of hardy plants was held on Wednesday evening, August 17th, at the George Hotel, under the Presidency of Mr. A. J. Macself. A resolution to the effect that a National Hardy Plant Society be formed was carried with enthusiasm, and the meeting proceeded to elect Mr. A. J. Macself chairman of the committee. Mr. J. S. Brunton, treasurer, and Mr. Frank Bouskell as secretary. A provisional committee was appointed to proceed with preliminary work and arrangements were made to hold another meeting in connection with the Edinburgh Show early in September."

The Council later elected includes legendary names like Artindale, Ballard, Barr, Dickson, Elliott, Harkness, Kelway, Prichard, Sanders and Waters and the objects of the Society were to encourage the interest in hardy perennials, to organise trials and to report for publication and "to collect and disseminate trustworthy information respecting the ability of particular plants to the varied conditions of soil and locality throughout Great Britain and Ireland."



Photo. H. Smith.

The Hardy Plant Society's publicity stand at the R.H.S. Hall, 11th August, 1964.

However, the Society was not acclaimed quite as it had been hoped it would be and after several years it appears to have developed into the British Delphinium Society. The constitution of the H.P.S. was altered accordingly to apply to the newly-formed B.D.S., and the original work done in the hand of A. J. Macself is in possession of one of the members of the present Hardy Plant Society. The close history of the two societies has continued through two world wars and in 1952 the future of the British Delphinium Society was in the balance. An urgent personal appeal went to each member from the chairman, the late Thomas Carlile, for continued support, new members and new interest. Many of us remember a stormy meeting in 1953 when the British Delphinium Society finally emerged as the strong society it is today and those of us who had hoped to revert to the idea of a Hardy Plant Society were left to wait and assess the support we could expect for the formation of a new Hardy Plant Society. Thus the present Society came into being ten years ago, on 5th March, 1957 at a meeting at the R.H.S. Hall with A. G. L. Hellyer in the chair.

The full story of the two societies up to 1953 and the ten strengthening years of the present Hardy Plant Society will be told in the 1967 issue of the BULLETIN.

ACKNOWLEDGEMENTS

THE Editor wishes to thank all contributors and members of the Society for their very ready help in the production of this Handbook. She also acknowledges special help and advice from:

Miss T. Atkins

Kenneth A. Beckett

Miss Alice M. Coats

G. R. Kingbourn

H. G. Longman

Miss R. B. Pole

Noël J. Prockter

The staff of the R.H.S. Gardens, Wisley

Marion Street, A.R.I.P.

Miss B. White