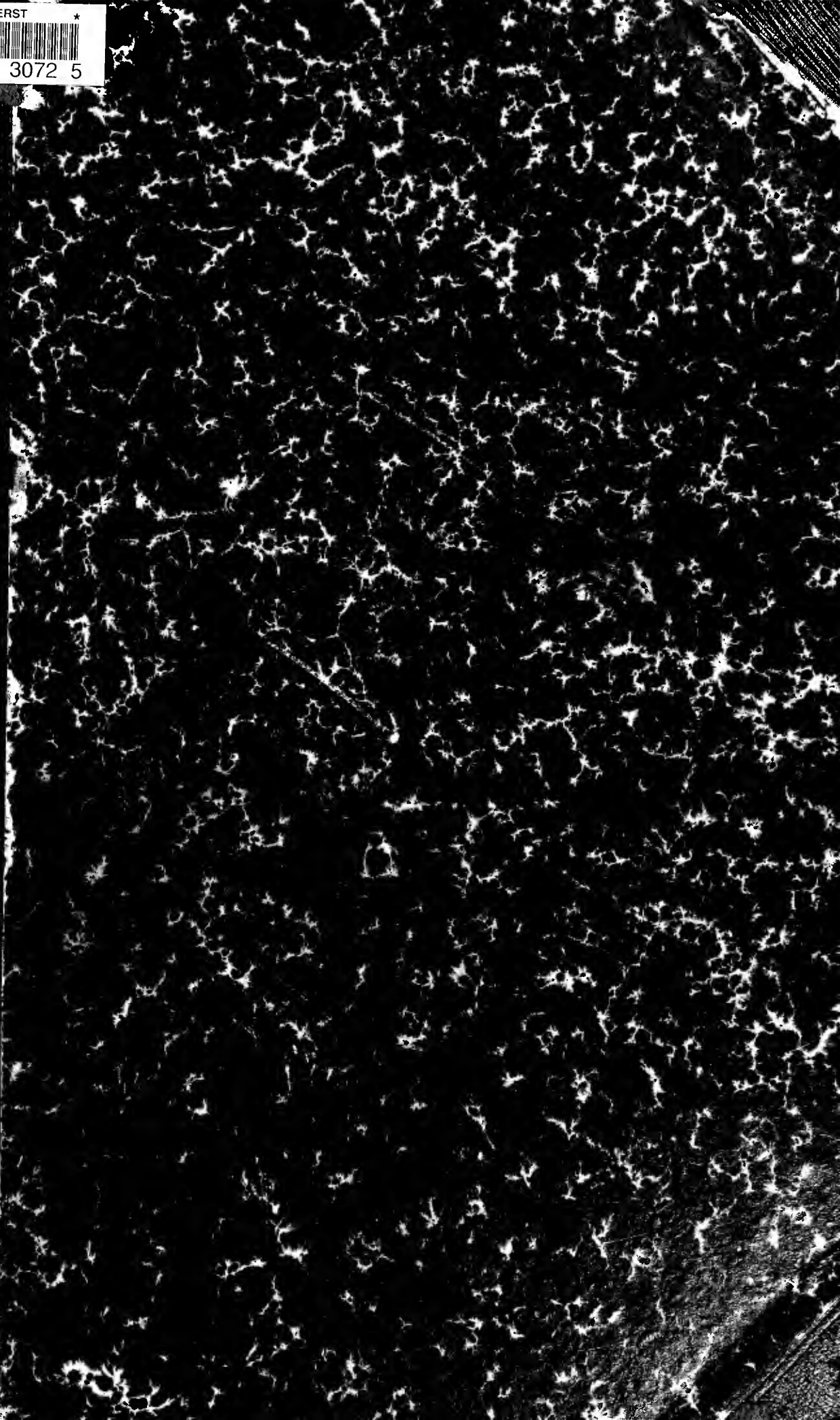


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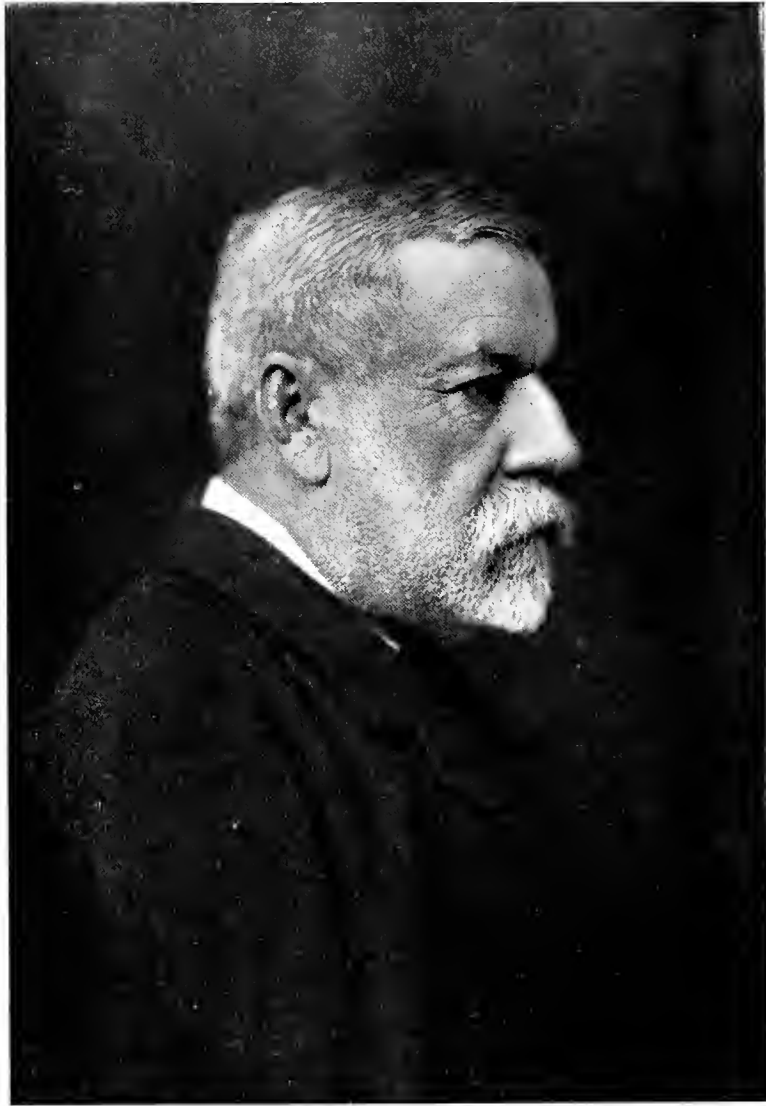












CHARLES SPRAGUE SARGENT.





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## CHARLES SPRAGUE SARGENT

THE SIXTY - FIFTH VOLUME OF "THE GARDEN"

**Is dedicated.**

**T**HERE is one garden in the United States to which all who are earnest in their love for horticulture, and tree and shrub life in particular, look to as an example of the great work that may be accomplished by a master mind — we mean Brookline, Boston, the residence of Professor Sargent, to whom this volume of **THE GARDEN** is dedicated. Brookline is the home of a man who has acquaintance with the best of British gardens and collections, and knows them better than most Englishmen. He is one of America's great landscape gardeners, and his knowledge of trees in their native habitats is perhaps unrivalled.

Professor Sargent is a great traveller and worker, and his enthusiastic interest in the Arnold Arboretum, Jamaica Plain, Mass., is a matter of common knowledge, and the Linnaean Society recognised this by electing him a foreign member on May 1, 1902.

Few men have travelled more than Professor Sargent in the endeavour to know trees and shrubs and plants generally as they grow in their native wilds, and his works are monuments of industry and research. "The Sylva of North America" is a description of the trees which grow naturally in North America, exclusive of Mexico; it comprises fourteen volumes (quarto), 790 plates, and was issued during the years from 1891 to 1902, it is the finest work on trees ever published. "A Catalogue of the Forest Trees of North America, 10th census report, 1880," a work giving descriptions of trees, the value of their timber, with elaborate tables of the weights, tensions, uses, and other important details; "The Forest Flora of Japan;" "Trees and Shrubs," illustrations of new or little known ligneous plants prepared chiefly from material at the Arnold Arboretum, 1902; numbers of reports on forestry; and a translation of Des Cars' book on "Tree Pruning," the best and most practical treatise on the subject are other valuable works of his.

Professor Sargent is an honorary member of the Royal Horticultural Society.

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# THE GARDEN

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## HORTICULTURE IN 1903.

**T**HE year that has gone will be remembered for one feature—a pitiless rain, with a temperature that brought winter into the heart of summer. Disastrous floods, harsh winds, and rain day after day destroyed the harvest, and the frosts of spring and early summer spoil the fruit and even vegetable crops. It has been a dreary year for horticulturists and for trade generally, and we hope devoutly that the year that has dawned will bring greater prosperity to the country and joy to those who revel in their gardens.

But horticultural events increase in the face of all obstacles. The past year has been one of exceptional activity in the gardening world, and the Royal Horticultural and National Rose Societies have flourished exceedingly. The access of Fellows to the Royal Horticultural Society is extraordinary, and due both to the greater zest for gardening in these days and to the exceptional return in the way of tickets for exhibitions and the quarterly volumes of the Journal for the modest subscription that will gain a Fellowship. The present year will mark a great era in the history of this famous society, for in 1904 it will celebrate its centenary by the opening of a new Horticultural Hall and a new garden.

The building of the Hall and the gift from Sir Thomas Hanbury, K.C.V.O., of the garden of the late Mr. G. F. Wilson at Wisley, near Weybridge, are certainly among the most important horticultural events of the past year, and the meetings of the society in the Drill Hall, at Holland House, and in the Temple Gardens have been of much interest. We have seen many of the introductions of Messrs. Veitch and Sons from China, and the lectures given on various botanical and horticultural subjects have proved, we think, more interesting and instructive than usual, as a careful study of the printed papers will show. It is also interesting to notice that the papers read at the meetings of the Horticultural Club have not been less interesting than those before the Royal Horticultural Society, and were made more instructive by the general discussion which invariably follows.

Exhibitions seem to multiply, and in spite of the abnormal weather were, as a rule, very successful. The great Shrewsbury show was a triumph, and the displays at Holland House and in the Temple Gardens were well attended. The Metropolitan exhibition of the National

Rose Society was not brilliant. The date was too early, and Glasgow, the city selected for the provincial display, was the gainer; this was probably the finest Rose show of the year.

A few weeks before the great Chrysanthemum tournament began a memorable exhibition of fruit and vegetables brought many horticulturists to the gardens of the Royal Horticultural Society at Chiswick. The vegetables were remarkable, and the papers read in the afternoon on various aspects of vegetable culture and cookery deserve to be widely read. It is wholesome evidence of the sound condition of English gardening when so much attention is directed to the production of vegetables of high class quality and in improving existing types. We have heard much about certain varieties of Potatoes that are to bring profit to every homestead. We shall await results this year. In the evening of the first day of the Chiswick fruit and vegetable show a great company of gardeners assembled in the Holborn Restaurant as one step towards a greater reunion between the members of the gardening calling than exists at present, and a gardener's association is likely to be the outcome of this demonstration.

Special societies seem to flourish, and, perhaps, are agents for good in their own peculiar way, but we dread to think of the future if these special missions attack every favourite flower, fruit, and vegetable. A calmer judgment may, however, happily prevail. We are glad to see that the National Auricula and Carnation societies, and the Daffodil Society in Birmingham, show no signs of decrepitude. These old florist associations are reminders of the past, which we would not willingly let die. The retirement of Mr. Latham after many years of honourable service as curator of the Botanic Gardens in Birmingham is worthy of record, and his successor (Mr. Humphreys) may be trusted to carry on the traditions of his office.

Death has removed during the past year many a familiar and kindly face from the ranks of the living. We mourn the loss of such a devoted gardener as Captain Torrens (who reintroduced the pretty *Schizocodon soldanelloides*), Mr. A. F. Barron, V.M.H., Mr. James Smith, V.M.H., Mr. Andrew Pettigrew, Mr. R. Mackellar, Mr. William Beale, Mr. J. H. Fitt, Mr. William Thompson, V.M.H., Mr. John Peed, and Mr. William Fell, with several foreign nurserymen and gardeners, from whose skill and experience we have greatly profited.

This necessarily brief summary of a few of the more important events of 1903 is sufficient to show that in the horticultural and scientific world there is no standing still; there is work and progress, much to be thankful for, and little to regret.

## COLOUR IN THE MIXED BORDER.

I HAVE been interested to find from several letters in *THE GARDEN* that I must have altered the planting of my herbaceous borders, *i.e.*, from mixed colours to plants of one colour together, before any of those described there. As in my case it has proved a great success, perhaps some others may be as interested in a description of my border as I have been about theirs.

It suggested itself first to me as the only means I could think of that would remedy the spotty effect, rather like an old-fashioned patchwork counterpane, that even the best herbaceous borders I knew gave, however well the individual plants were grown. Sometimes even the colour of a flower seemed to be counteracted if those on each side of it contrasted too violently with it, so I painted a plan of the borders in water colour, remembering how wonderfully a warm colour gains when seen through or past a cool one, and *vice versa*, and also remembering gradually to change the colours as they can be changed in water colours. For instance, I avoided placing yellows next to blues, as, though the contrast might be good, the two colours could not blend without making green. So I remembered the rainbow and tried to follow that, or at all events not to put any colours next their opposites. The result of this far exceeded my hopes and expectations.

The herbaceous borders I altered are in the kitchen garden, which is square, crossing the garden at right angles, but not in the middle, making a T. The garden is generally entered at the left end of the horizontal cross of the T, through a door in a high wall, and having opened that one walks down a step into a sea of blue. I thought, until I searched for and collected together all the blue flowers I knew to plant at that end of the walk, that blue flowers were few and far between. But I no longer think so, for at almost all seasons of the year this part of the border has been a dream of blue. Some of the best effects in the garden have arranged themselves here. Whether from the mass of high *Delphiniums* at the back, with *Commelina cælestis* and *Salvia patens* in front, or even earlier in the year from a group of nearly black *Pansies* close to a mass of *Myosotis* and near dark purple *Aubrietias*, *Scillas*, and *Iris reticulata*. Blue of all shades and purples give place gradually to mauves and lilacs, and so on. The *Iris*, of all purplish shades down to the palest grey (that makes going into half mourning almost a

pleasure) come in so well here. Then come Funkia, Lilies, and Gypsophilum, and then white, and that brings us to the corner on the right hand between the perpendicular stroke of the T and the horizontal cross. There is a bold group of Yuccas here, and underneath them are planted dainty little white Tiarellas. I remember carefully avoiding (as I note with amusement) a sweet smelling flower for this place, from the same consideration for the eyes of lovers of sweet smells as Miss Jekyll did, only I thought of the little eager noses and precious eyes already so near the sharp Yucca leaves of my three little daughters.

The opposite corner has a large plant of pale yellow Tree Lupins, also cream-coloured Paris Daisies and *Bocconia cordata*; then quite white on both sides for 10 feet or 12 feet, making a cool, refreshing interlude from bright colours. It is also rather shady from a tall Pine tree growing near. Here early in the year are groups of *Lilium candidum*, white Pinks in front and double white Alyssum, that enchanting addition to white flowers, later on Tobacco, Japanese Anemones, double white Stocks, &c., with a good plant of *Thalictrum adiantifolium*. Pink begins on the left side immediately past the shade with creeping Phlox, Silene, large Thrift, Raby Pinks, Ivy-leaved Geranium, and London Pride, and not forgetting *Sedum spectabile* for the butterflies, they love it so, and behind these *Dicentra*, Sweet Peas, and Hollyhocks, these two only red instead of pink continue to the end of the path. Indeed, all along the arms of the T on each side of the walk runs a hedge of Sweet Peas, sown one colour alone, and that colour the right one for the flowers planted in front of it.

Pink becomes orange on each side of the walk, then red, then crimson, and at the end I had a Crimson Rambler Rose on one side and a Paul's Carmine Pillar on the other, climbing up and hanging over rough posts of young Scotch Fir trees.

Early in the year large groups of dark red Wallflowers and of tall, red Gesner Tulips, and humble but most effective little double Daisy rosettes, and a few red *Polyanthus* are some that tell here with good effect. Later large scarlet Poppies and *Paeonies* come in well, but it is the late summer when here the reds really answer best. Even after all the rain last summer I remember several stormy afternoons when the sun shone out brightly before it set and the gorgeous blaze of colour of all the red flowers together was most wonderful. I really think red gains more from neighbouring reds than any other colour. The smallest little spike of red blossom beginning timidly to come out on the plant seems to gain additional effect from another equally small red flower close by. But when it comes to a mass of blood red tall Phloxes, Valerians, Bergamots, Cactus Dahlias, and Gladioli, backed by Mars Sweet Peas, and further behind still tall haughty Hollyhocks of dark shades of red; in front brown-leaved scarlet Lobelias, Sweet Williams, masses of red *Linum* (one mass of flowers), Scarlet *Lychnis*, and pegged down Verbenas, and close beyond orange of all sorts and shades, *Hemerocallis*, *Coreopsis tinctoria*, graceful, wild, and fragrant, always reminding me of lovely gipsy girls; Iceland Poppies, Gazanias, common Marigolds, &c., altogether growing in luxurious irregular masses of glowing colour; I felt it had well repaid the gardener his trouble in replanting over 4,000 plants.

Retracing one's steps as far as the upright stroke of the T, the yellows begin again, change to orange, then to red on each side, then again orange and scarlet mixed, yellow, white, grey, and finally to blue at the other gate.

From no place can both instances of red and blue be seen at the same time. One has to turn one's back on one in order to see the other. The only difficulty, of course, is so to arrange the plants as to avoid blank spaces by always having a plant just coming into flower planted closely to one just going off.

I myself am not above putting in a Henry Jacoby Geranium if a space appears inevitable amongst the red, or a yellow *Calceolaria*, if the *Eschscholtzias* should fail, a purple *Petunia* among the purples, &c., but I hope each year to gain in experience, and that this next, the fifth, summer may be the best we have yet had, and the next better still.

MARY BUXTON.

*Dunston Hall, Norwich.*

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 16.—Société Française d'Horticulture de Londres Annual Dinner.

January 21.—Gardeners' Royal Benevolent Institution Annual General Meeting at the Covent Garden Hotel; Annual Supper, Covent Garden Hotel, Mr. Leonard Sutton in the chair.

January 26.—Royal Horticultural Society's Drill Hall Meeting.

**"The Garden" Almanac.**—We hope that the Almanac published as a supplement to the current issue of THE GARDEN will be found useful to all who take an interest in horticultural matters. The dates of the chief flower shows and meetings arranged for 1904 are included, as well as other general information. We take this opportunity of thanking all who have so kindly assisted us in its compilation.

**Royal Horticultural Society.**—The first meeting of the committees of the above society in 1904 will be held, as usual, in the Drill Hall, Buckingham Gate, Westminster, on Tuesday next. An election of new Fellows will take place at three o'clock. To prevent misunderstanding, it may be mentioned that the committees of 1903 do not vacate office until the date of the annual meeting, 1904, and in like manner all Fellows' tickets of 1903 are available until the end of January, 1904. At a general meeting, held on Tuesday, the 15th ult., seventy-two new Fellows were elected, making a total of 1,412 elected since the beginning of the year 1903.

**Galega Hartlandi (?)**.—On page 441 an illustration is given of a *Galega* sent to me by Mr. Hartland of Cork. I well remember receiving flowers of it last year, and thought it then of probably hybrid origin. Through a printer's error a query was left out of the title to the illustration last week, and without this an impression is conveyed that the name of the plant is fixed, thus raising it to specific rank. I hope Mr. Hartland will not definitely name the plant until its origin has been determined.—E. T. C.

**University College, Reading.**—**Department of Horticulture.**—Four scholarships to young gardeners will be awarded in January, 1904. Each scholarship is of the value of £45 (inclusive of maintenance and instruction). The student gardeners holding the scholarships will be required to attend, from January to September, a course of instruction in the horticultural department and the gardens of University College, Reading. Candidates must be of not more than twenty-two years of age, and must have worked for four years in public or private gardens. Applications for scholarships must be made on the scholarship form, to be obtained from the registrar. This form of application, accompanied by a certificate of work and character, must be sent to the registrar before January 10. Candidates will be required to pass a simple examination in English, arithmetic, and the elements of horticulture. In awarding the scholarships, previous training and experience will be taken into account. The course of training will consist of: 1. Practical horticulture. 2. Theory of horticulture. 3. Account keeping. 4. Lectures and practical work in botany and

chemistry in relation to horticulture; insects and fungoid pests; bee-keeping. The scientific instruction will be given in the laboratories of the college; the practical instruction in horticulture in the college garden. The garden, seven and a half acres in extent, is well provided with horticultural buildings. It contains, besides a large number of pits and frames, thirteen glass houses used for general florist and market work. The scholarship holders will be prepared for the Royal Horticultural Society's examination. Certificates of proficiency will be awarded on the work done during the course, and on the results of an examination held at the end of the course.

**"The Horticultural Directory."**—For many years this publication has been of value to horticulturists. The present is the forty-fifth year of publication, and gardeners will find it as useful as ever. In addition to the exhaustive revised lists of gardeners, seedsmen, nurserymen, secretaries of societies, and others, there are two new features, viz., a list of instructors in horticulture appointed by county councils, and also the names of all who hold or have received the Victoria Medal of Honour.

**Councillor Mackenzie of Edinburgh.**—A recent number of the *North British Advertiser* devoted its article for the week on "Men of Mark" to "Councillor ex-Bailie Mackenzie," better known to horticulturists as the head of the firm of Mackenzie and Moncur, Limited, hothouse builders and heating engineers. From it we gather that Mr. Mackenzie was born in 1836 in Appin in Argyleshire, and educated at the parish school of Appin. After serving his apprenticeship in Glasgow he went to Edinburgh, where he eventually entered into partnership with Mr. Moncur. The success of the firm is well known, so that it is unnecessary to detail what the *North British Advertiser* says on that subject. It devotes, however, a considerable space to Mr. Mackenzie's career as a public man for the past thirteen years, which has been one of continued success. For the last ten years Mr. Mackenzie has been convener of the Electric Lighting Committee, and it is largely to his ability that the present success of electric lighting in Edinburgh is due. As the journal referred to concludes, "Councillor Mackenzie is a capable man of business, and an enthusiastic worker in the interests of the city."

**Two good winter-blooming plants (Calceolaria fuchsiae-folia or deflexa of Bot. Mag., and C. Burbidgei).**—

The prettiest and brightest ornaments of my winter greenhouse at the present moment are the above-named pair of Slipperworts, which are well worth cultivating when flowers are so scarce. The first-named is a native of Peru, and is well figured in the 105th volume of the *Botanical Magazine* on plate 6431. It was introduced into cultivation some thirty years ago by an Irish firm of nurserymen at Newry, now extinct, from whom I received it about 1878, and have grown it intermittently ever since, as it is somewhat difficult to keep unless constantly propagated by cuttings. It is an exceedingly pretty species, of a neat and compact habit of growth, and exceedingly free-flowering. The second-named is a hybrid between *C. Pavonii* (figured on plate 4525 of volume 76 of *Botanical Magazine*), and *C. deflexa*, raised by Mr. F. W. Burbidge, of the Trinity College Botanic Gardens, Dublin. The first-named parent is an exceedingly coarse grower, and hardly suited for pot culture. The hybrid is about intermediate between its parents, being much less coarse-growing than the first-named, though of a free and branching habit of growth, and producing much larger flowers than the second. Another good winter-blooming greenhouse plant, which has also the advantage of being sweet-scented, is *Eupatorium petiolare*, first sent out by a German nurseryman under the name of *E. Purpussii*, after its introducer, Herr Purpuss. Its colour is bluish-white, and it is very free-flowering.—W. E. GUMBLETON.

**Royal Botanic Gardens, Edinburgh.**—The members of the staff of the Royal Botanic Gardens, Edinburgh, held their second annual assembly in the Gardeners' Institute, Picardy Place, on the 18th ult. Messrs. Wilson and Gow, who were responsible for the



admirable arrangements, are to be highly complimented for their success in providing such an enjoyable evening

**Schubertia grandiflora.**—This valuable stove climber is seldom grown to perfection, nor is it grown to the extent that it deserves to be. I consider it is one of the finest stove climbers we have; it produces large trusses of pure white flowers, the scent being that of a Coconut. It is very free blooming, and bears its trusses on stems from 3 inches to 6 inches long, which make it so useful for cutting, unlike so many other climbers that are almost without a stem. This plant enjoys plenty of moisture when growing and a liberal supply of water. Diluted farmyard liquid manure at intervals is beneficial. It flowers on the wood made the same year, and the shoots must not be stopped. Should mealy bug infest it the most stringent and careful measures must be taken.—J. S. HIGGINS, *Rig Gardens, Cornen.*

**Edinburgh Market Gardeners' Association.**—There was a large attendance of the members of this association at their annual meeting in Edinburgh on the 15th ult., Mr. Blackie, the chairman, presiding. Councillor Waterston, chairman of the Corporation Markets Committee, was also present as a deputation from that committee. The ordinary formal business, including the allocation of the stands in the fruit and vegetable markets, was transacted, and it was stated that the relations between the Town Council and the market gardeners with regard to these had been of a pleasant character during the year. The revenue of the market, so far as derived from the market gardeners, had showed a small decrease. Councillor Waterston assured the meeting that the corporation was most anxious to do everything possible to make the market more comfortable and valuable to the gardeners. The important matter of the railway charges for market garden produce was introduced by an address from Mr. Isaac Connell, the secretary of the Scottish Chamber of Horticulture, who referred to this question, which was recently the subject of a paragraph in THE GARDEN, and suggested a combination of the association and the chamber in taking action in this and kindred questions affecting the horticultural and agricultural interests. It was agreed that the association should affiliate with the Scottish Chamber of Agriculture, and a committee was appointed to make the necessary arrangements.

**A well-coloured flower border.**—After the remarks made by "G. J." on page 405, with reference to Captain Reid's article on page 375, it is difficult to offer any suggestions with a view to helping to improve the arrangements proposed. A few alternatives may, however, be suggested. Hints for an edging to the section of pinks and scarlets are asked for, and "G. J.," Mr. Hindmarsh, and "Evelyn" have made some excellent proposals regarding these and other colours. May I suggest the double German Catchfly (*Lychnis Viscaria splendens plena*), *Armeria maritima lauchiana*, *Geum chiloense plenum*, and *Sedum spectabile*? Something "superlatively lovely, free-flowering, and sweet-smelling" for the edging to the Yuccas, &c., cannot be better supplied than by the old double white Pink, which I have seen used with superb effect by a grass path. If *Linum flavum* does well with Captain Reid it would work well in as a part of his groundwork for the yellows. I quite agree that the Winter Aconite comes in too early for this colour scheme. Good blues in either shrubs or flowers are difficult to obtain, but among the flowers there are some of the Aconitums, *Anchusa italica*, some of the Campanulas, the true *turbinata* making a capital edging. Then there are some of the Polemoniads, and some of the Irises are blue enough to use with perfect propriety. If Captain Reid will form one of his edgings with *Iris cristata* (if it does well with him), then he will be satisfied with its general effect. Although I have suggested white Pinks for association with the Yuccas, I am at one with "G. J." as to the danger of taking away any of the effect of these noble plants.—S. ARNOTT.

**Marquis de Pins.**—We have already made reference to this new raiser of seedling

*Chrysanthemum* in our Paris *Chrysanthemum* report the other week. In our esteemed contemporary and namesake *Le Jardin* of Paris, we observe a capital portrait of this gentleman together with a short biographical notice, in which a few details of his horticultural career appear. The Marquis is quite a young man, and promises to have a most successful future in store. No one who visited the Paris show could have failed to have been immensely struck with the extraordinary display of new seedlings that he set up in such perfect style. Grand Japanese blooms of enormous size filled a large raised bed on the ground, the seedlings being staged in five flowers of each variety. Most of the other well known French seedling growers were represented close at hand, but we will make no comparisons. Time will show, and we can only say that we await with some degree of interest the early possibility of these new seedlings of the Marquis de Pins getting into the hands of our leading exhibitors. As a grower he is little better than a beginner, and as an exhibitor was practically unknown in his own country until last year, although he had twice exhibited locally; that was down south, but last year and this he came up to Paris and there staged his novelties in a way that surprised everyone who saw them. We cannot, of course, say what will be done on this side of the Channel to introduce these novelties into our collections, but at any rate we mention several by name that they may be recognised if the opportunity occurs: Béhé, Mme. Lasies, Mme. de la Motte St. Pierre Nyphon, Poupoule, Belle l'Isloise, Souvenir de Montbrun, Angell, Charles Bacque, Congrès de Bordeaux, Mme. Magoe, Mme. de Castelbajac, and Germanie.—C. H. P.

**Chrysanthemums in winter.**—At this season of the year large quantities of flowers are naturally sought for, and thus my desire to note a few varieties grown here, which are indispensable for the festive season as they all bloom naturally and very freely at this time. Princess Victoria, creamy white in colour, has perfect flowers of great substance, expanding beautifully. From the main stems the blossoms are supported on stiff, long stems, and so lend themselves easily for vase arrangement. Golden Princess Victoria and Pink Princess Victoria are sports from the above, and have all its good qualities; the colours, as their name implies, are very decided. These three varieties are a valuable trio, and would never fail to please. The Queen, white erect flowers, is still one of the best, very robust, and an abundant bloomer. Mrs. W. H. Weeks makes a remarkably fine bush plant also, with well-formed flowers. Mme. P. Rivoire is very effective, perhaps the freest flowering variety, with bold, well-developed blooms of creamy white. L. Canning is an excellent white, a very desirable variety, flowering as it does well into January. All the above are good forms of the Japanese type. Duchess of Edinburgh (*Japanese Anemone*) is a charming variety, well adapted for table decorations, the colour being soft blush-pink. Miss Filkins, bright yellow, is a general favourite for all decorative purposes, retaining its freshness fully ten days after being cut; it belongs to the feathery section. King of the Plumes, deep golden yellow, belongs to the same class, the petals being prettily cut and notched.—G. ELLWOOD, *Swanmore.*

**Potato Northern Star.**—Mr. Beckett deserves the thanks of the readers of THE GARDEN for the warning he gives about the above Potato in the issue of the 12th ult. I have never been quite able to understand the extraordinary prices charged for Northern Star, which may have been very good from the seller's point of view, though where the buyer's return is coming from I cannot quite understand. Mr. Beckett says he saw diseased tubers of Northern Star at the Southampton *Chrysanthemum* show, and probably there have been many more about that have not been heard of. Be that as it may, I undertake to say that in another two or three years' time we shall hear enough of disease amongst Northern Star, and perhaps some of the others of the highly-praised new Potatoes of this year. They are all being weakened by that common error practised by nearly everybody with new plants of an

what I have heard and read, Northern Star was largely increased this last season by single eyes, which were cut out, potted in 3-inch pots, and started into growth in heat. When sufficient growth was made the tops were cut off and struck as cuttings. Later on the whole of these were planted out. Seed Potatoes from these plants have presumably been sold this year, but they cannot have the constitutional vigour of the original stock. No greater mistake can be made with a modern Potato—a highly-cultivated plant liable to a terrible disease—than to weaken its constitution at the beginning of its existence by over propagating it. If we tamper with Nature by trying to make a plant do more than it properly can, and thereby weaken its constitution, then Nature turns round, and we pay the penalty in the shape of fungoid diseases and insect pests. In dealing with highly-cultivated plants of any sort—whether flowers, fruits, or vegetables—it ought to be always remembered that we are increasing one part of the plant at the expense of the remainder, and simultaneously with larger flowers or fruits, or better vegetables, we should try to obtain and keep a sturdier habit and a stronger constitution, as without the latter the former will be found to be of little permanent value.—J. C.

## THE AURICULA.

**PRIMULA AURICULA**—called also Bear's Ears and Mountain Primrose by old growers and writers—is one of the oldest florist's flowers in cultivation. It is a native of the mountains of Switzerland, Austria, and Syria, and, although doubtless preferring the sweet fresh air of its mountain home, yet it has most kindly adapted itself to our modern mode of culture, thriving in country gardens or even in the immediate neighbourhood of our large and crowded towns, where it is cultivated with great success, London, Birmingham, and Manchester each having a thriving Auricula society of its own, whose members meet once a year in friendly contest to compete for the prizes offered.

Coming into bloom as it does in the early spring, it has few rivals in other florist's flowers, and the bright colours—blue, purple, maroon, red, some almost black and yellow, with many other shades attract the admiration of the casual observer and engross the undivided attention of the careful and enthusiastic cultivator during the blooming season. Many old writers on the Auricula recommend composts of a stimulating and mysterious nature, and invented nostrums which would almost appear to have been introduced for the purpose of increasing the difficulties of their culture. These old notions have been swept away, and plain, simple methods are now taking their place. We propose giving cultural notes month by month during the year, which we hope may interest those already growing this charming and fascinating florist's flower, and possibly induce others to take up its culture.

### WORK IN JANUARY.

This month is one of apparent rest for the Auricula, but although the plants in many instances by the shedding of their foliage may be reduced to mere cones, they must not be neglected, for there is work imperceptibly going on below for the formation of the truss of bloom for the coming spring. Any decayed leaves must be removed and air given freely day and night except in frosty weather or when keen easterly winds prevail. Little or no water is required, except in cases where the soil is getting dust-dry, and then only sparingly, and for preference on a morning when the wind is in the southern quarter.

*Bishop's Stortford.*

W. SMITH.

[Readers who desire assistance in Auricula culture should communicate with the Editor.

The object of these notes, which will appear each month, is to increase the popularity of the Auricula, and to this end all questions concerning the flower will be willingly answered.]

## THE ROSE GARDEN.

### ROSE ANALYSIS.—III.

#### AN AUDIT OF THE NEWER EXHIBITION ROSES.

**T**HE audit given below has been introduced for the benefit of the varieties of recent introduction, which it is impossible to place accurately in the tables, owing to their limited records, and to the disturbing influence of a single favourable, or unfavourable, season upon those records. Each of the following voters was requested to place the fourteen H.P.'s and H.T.'s on the audit paper in what they considered their order of merit as exhibition Roses, and to deal in the same way with the Teas.

"In calculating the number of votes it should be understood that a first place vote in the case of the former list is counted as fourteen votes, a second as thirteen votes, and so on. In the case of the Teas a first place vote is only reckoned as three votes, a second as two votes, and a third as one vote, as there are only three candidates on that list, as compared with fourteen in the other one.

"**AMATEURS.**—Mr. J. Bateman, Rev. H. B. Biron, Mr. W. Boyes, Rev. F. R. Burnside, Rev. A. Foster-Melliard, Dr. J. C. Hall, Mr. R. Foley Hobbs, Mr. Conway Jones, Mr. H. V. Machin, Mr. O. G. Orpen, Rev. F. Page-Roberts, Rev. J. H. Pemberton, Mr. A. Slaughter, Mr. A. Tate, and Mr. R. E. West.

"**NURSEYMEN.**—Messrs. G. Burch, J. Burrell, C. E. Cant, Frank Cant, A. Dickson, Hugh Dickson, John Green (Hobbies, Limited), W. J. Jefferies, J. R. Mattock, H. Merryweather, jun., G. Mount, G. Paul, W. Paul, W. D. Prior, J. Townsend, and A. Turner.

#### SPECIAL AUDIT OF THE NEWER H.P.'S AND H.T.'S.

Position in Audit.	Name.	Total No. of Votes.	Votes by Amateurs.	Votes by Nurserymen.
1	Mildred Grant (1901), H.T.	391	188	203
2	Bessie Brown (1899), H.T.	367	174	193
3	Frau Karl Druschki (1900)	339	159	180
4	Florence Pemberton (1902), H.T.	273	124	149
5	Alice Lindsell (1902), H.T.	257	116	141
6	Ulster (1899)	233	93	130
7	Duchess of Portland (1901), H.T.	220	100	120
8	Papa Lambert (1899), H.T.	211	88	123
9	Ben Cant (1902)	210	114	96
10	Gladys Harkness (1900), H.T.	178	79	99
11	Lady Moyra Beauclerc (1901), H.T.	173	72	101
12	Mrs. Cocker (1899)	162	70	92
13	Edith D'ombrai (1902), H.T.	149	70	79
13	Mamie (1901), H.T.	149	74	75

#### TEAS.

1	Mrs. Edward Mawley (1899)	88	45	43
2	Souvenir de Pierre Notting (1902)	57	28	29
3	Lady Roberts (1902)	37	17	20

Placed according to their dates of introduction, the above varieties arrange themselves as follows: *Hybrid Perpetuals and Hybrid Teas*—1899, Bessie Brown, Ulster, Papa Lambert, Mrs. Cocker; 1900, Frau Karl Druschki, Gladys Harkness; 1901, Mildred Grant, Duchess of Portland, Lady Moyra Beauclerc, Mamie; 1902, Florence Pemberton, Alice Lindsell, Ben Cant, Edith D'ombrai. *Teas*—1899, Mrs. Edward Mawley; 1902, Souvenir de Pierre Notting, Lady Roberts.

E. MAWLEY, in the *Journal of Horticulture*.

To anyone like myself, who is interested in new Roses, an audit such as the above, giving, as it does, the opinion of the principal exhibitors of the day, cannot but be, not only interesting, but also instructive.

It was no doubt Mr. Mawley's intention to have obtained the views of an equal number of trade exhibitors and amateurs, but he does

not appear to have received an answer from all of those whom he asked to vote, as a careful inspection of the audit will go to prove that fifteen amateurs voted and seventeen nurserymen. The audit speaks for itself, but I think it will be worth while to obtain a comparison between the views of the nurserymen and the amateurs, and to do this it is necessary to deduct two nurserymen's votes from each Rose in the table, bearing in mind the correct sequence as shown by the total number of votes, so that while twenty-eight votes will have to be deducted from Mildred Grant, two only must be deducted from Mamie. This will give us the following approximate result:

Name.	Votes by Amateurs.	Votes by Nurserymen.
Mildred Grant	188	175
Bessie Brown	174	167
Frau Karl Druschki	159	156
Florence Pemberton	124	127
Alice Lindsell	116	121
Ulster	93	112
Duchess of Portland	7	100
Papa Lambert	9	88
Ben Cant	6	114
G. Harkness	10	79
Lady Moyra Beauclerc	12	72
Mrs. Cocker	13	70
Edith D'ombrai	14	70
Mamie	11	74

The written order is the result of Mr. Mawley's combined vote, the second column the order of the Roses in accordance with the amateurs' vote, the last column the order in accordance with the revised nurserymen's vote.

The first thing that strikes one is the extraordinary likeness between the two results. The first five Roses are the same in each list. Ben Cant is the point of greatest divergence, the amateurs preferring it to Ulster, Duchess of Portland, Papa Lambert, and the remaining Roses, putting it at No. 6, while the trade place it below those named, and also below Gladys Harkness and Lady Moyra Beauclerc, making it No. 11. What is the reason of this? Does it come better as a maiden or as a cut-back? And did the amateurs grow it as a cut-back and the trade as a maiden? These points all no doubt contributed to the varied decisions, but I am inclined to think the principal reason is to be found in the fact that the amateur has remembered its colour, and the nurseryman its form, with the result above mentioned. I personally should have preferred it to Papa Lambert and Ulster; and while I think Duchess of Portland a better Rose than either of the three I can understand others thinking otherwise. Mamie comes very pretty at times, and when better known I think we shall see more of this Rose in the future than either of the three Roses immediately above her in the table.

The audit is particularly interesting to me, as it enables me to compare my own views as expressed in former articles to you with those who are better able to form a correct opinion.

Mr. Mawley, in his comments on the analysis of the H.P.'s, referred to the triumph of Bessie Brown over Mrs. John Laing, and deplored same. If this audit is a true forecast, Bessie Brown's triumph will be short lived, and she will have to give way to Mildred Grant, although I am inclined to think myself that Bessie Brown will take a lot of beating, and of the two I have found her the easier to grow and to exhibit, and I should therefore not be surprised to see her at the head of Mr. Mawley's analysis for some time to come. I do not think she need fear any other one of her numerous rivals so far as I know them.

The audit of the three Teas needs little comment. It, however, shows that good Teas

are scarce, that while we have fourteen Hybrid Perpetuals and Hybrid Teas (and that number might easily have been increased) introduced since 1899, there are only three Teas that can be called exhibition Roses, and not a few have their doubts as to whether one of these three is not more closely allied to the Hybrid Tea than the true Tea. It is to Messrs. Dickson of Newtownards that we principally look to give us our exhibition Roses. I wonder whether amongst the five or six new Roses that come from Newtownards regularly every year, their set for 1904 will contain a new exhibition Tea. It is five years since Mrs. Edward Mawley delighted us. Cannot Messrs. Dickson find one Tea this coming year up to the high standard, which they have compelled us to expect from them, or must we possess our souls in patience a little longer?

It should be noted that out of the seventeen Roses chosen by Mr. Mawley as the best of the new Roses, no less than eleven come from Ireland and only three from England, one from Scotland, the remaining three from the Continent; and, further, that the Irish Roses are the product of one firm, Messrs. Alex. Dickson and Sons.

As one who is keenly interested in all Roses, but especially in the exhibition Rose, may I be permitted at this season of the year to express the hope that Messrs. Dickson's "shadow may never grow less." If I know anything of the firm I am sure the quality of their Roses will not be allowed to deteriorate.

HERBERT E. MOLYNEUX.

Brantwood, Balham, S.W.

## THE FLOWER GARDEN.

### ANNUAL PINKS.

**A**MONG the annual Pinks we have this year especially noticed the following:—*Dianthus sinensis flore-pleno* (the double-flowered Chinese Pink), which greatly surpasses the old Chinese Pink, though the latter still retains its place among those most commendable. The petals are very close together, and show the most brilliant and diverse colours. The plants are dwarf, and develop regularly, which renders this variety especially fit for filling beds or for forming borders to beds of plants of rather high growth.

*D. sinensis imperialis fl.-pl.* (the double Imperial Chinese Pink).—This is a larger and more vigorous Pink than all the forms which precede it. Its colours are as bright as they are varied, and to such a degree that from the sowing of a single packet of mixed seeds fifty different varieties may be obtained.

*D. lanciatius*.—This has elegant and light coloured single fringed flowers. For some years past a host of varieties has been in existence. The following are above the average:—*D. l. atrosanguineus* (deep scarlet), *Reine des Fées* (salmon-pink with white borders), *dwarf Queen of the Fairies*, *Salmon Queen* (of a salmon-red), and the *dwarf violaceous*, with large violet-coloured flowers. Some of these varieties have also produced forms with double flowers. We reserve special mention for the *D. laciniatus zonalis*, with its grand flowers of bright salmon-red and "eye" of black-purple, and for a variety which has deep vinous red flowers. These are certainly the most charming and distinct of the annual Pinks. Their stems are long and strong; the flowers remain open a long time.

To conclude, let us add that the cultivation of the annual Pink is of the most elementary kind. Of all annual plants it is one of the easiest to grow. Sow under glass in March and April in order to plant out afterwards in the open air, or sow at once in the open air where they are required to grow in April or May. Only ordinary care is

required. Or, in order to obtain earlier blooms, the seeds may be sown in autumn, wintered under glass, and the young plants planted out in the spring. JULES BURVENICH, in Belgian paper.

### THE GREY GARDEN.

HAS anyone ever made in England an outdoor winter garden of any kind of importance? It may be done, and though it cannot be very full of flower, yet by planting it rightly it may be a complete garden, furnished entirely with plants and shrubs that show either their very best, or one of their best, moods from the beginning of November till the end of February.

Such a space would rather naturally divide itself into two sections, the first of which may be called the green garden. The green garden would be enclosed within the shelter of the finest hardy evergreens, the best of all being our three grand natives, Yew, Holly, and Box. It would also have flowering tree Ivy in neat bushes loaded with winter flower and fruit, and there would be spreading patches of the great white-flowered Christmas Rose (*Helleborus maximus*) and *Sternbergia* and *Iris stylosa* both blue and white, *Pernettyas* loaded with pink, white, and red berry, *Andromeda axillaris* and *A. Catesbæi* in red-bronze

winter dress, and highly coloured *Berberis Aquifolium*. There would also be strong tufts of the beautiful Victory or Alexandrian Laurel (*Ruscus racemosus*) and the *Gaultherias* (at their best in winter). Then clumps of three hardy Ferns that are conspicuous for beauty in the winter months, namely, Hart's-tongue, Polypody, and the Male Fern, which in sheltered places holds its fronds till some time after Christmas. Two native plants would also be important in this garden, namely, *Daphne Laureola* and the wild *Iris fetidissima*, in full deep green winter foliage, and in November opening its large seed pods and showing their bounty of scarlet-coloured seeds.

Satin-leaf (*Heuchera*) and others of its near relatives, *Tiarella* and *Tellima*, will give colour foliage, and the *Periwinkles* will begin the winter with the Mediterranean *Vinca acutifolia*, and end it with the garden varieties of *V. minor*, while the variegated *V. major* will show well among leaves of darker green. *Skimmias* and *Aucubas* will also find a place in the winter garden, carpeted with *Asarum* and *Galax*, and the small *Euonymus* radicans with the clear, bright, variegated leaves. The grand leathery leaves of the *Megaseas* will also be there in bold masses and in five varieties of green and red-bronze colourings. The plants above-named by no means exhaust the list of those

that might be used, though they have among them some of the most important.

This, the green garden, surrounded by evergreen trees, should lead to the grey garden, where a pleasant surprise will await those who have never seen a number of plants of grey foliage brought together. The chief occupants of the grey garden are Lavender bushes, Pinks, and Carnations, quite strangely beautiful in their masses of bluish grey. Many may have noticed how well Carnations, and especially the common white Pink, look in the depth of winter, their blue-grey tufts looking stronger, brighter, and cleaner than at any other time of the year. The great white Thistles (*Onopordon*) and the Olympian Mullein are important plants in the grey garden, and, beside the hedges of Lavender that mark out the chief lines and masses of the design, there are big bushes of Jerusalem Sage and of Lavender-Cotton, while lesser spaces are clothed with spreading sheets of *Alyssum* and *Cerastium*.

The grey garden is enclosed within walls of grey stone, on which are trained Rosemary and the Cretan *Cistus*, shrubs that, though not exactly grey, have foliage of so cool a tone that they suit admirably with the grey-blue silver colouring of the main planting. There is something particularly cheerful and well dressed about the grey garden



BORDER OF ROSEMARY IN FLOWER: ONE USE OF A BEAUTIFUL SHRUB.

that is most pleasant to see in the short, dark days of the winter months.

The use of spaces so planted is by no means restricted to the winter season, for even though they may be sufficiently clothed in their winter dress many are the lovely summer flowers that may shoot up between the shrubs or through the silver carpet, such as *Gladiolus* and *Galtonia*. There would also be quantities of China Roses in the grey garden in summer and hosts of Lilies in the green.

## THE WILD PINKS.

THE members of this extensive genus form a family of plants of great horticultural value, from some of the species of which are derived the well-known Carnations, Pinks, and Sweet Williams, the various forms of which are almost indispensable for furnishing the garden at various seasons of the year, consisting of, according to Dr. F. N. Williams in his enumeration of the species and varieties of the genus in 1899, of 231 species, distributed throughout Europe—with the exception of Ireland and Iceland—temperate Asia, and North and South Africa, with a representative in the extreme North-West of America. Most of them are perennials, with grass-like foliage, a few have a shrubby tendency, while others again are of annual or biennial duration. Growing under various conditions many are inhabitants of lowland meadows and dry heaths, some few are maritime plants, being found on the sea shore, others are found at various altitudes on the mountain chains, some, like the alpine and glacier Pinks, grow very high up, and are amongst the most beautiful of our alpine plants. A great many are charming rock plants, forming tufts of evergreen glaucous foliage, which show to advantage on ledges in the rock garden, covered in spring with numerous flowers, some species with large flowers borne singly on short stems a few inches high, others have taller branching stems, while others are of erect growth, bearing a number of flowers in a compact head on the top of stems 1 foot to 2 feet in height.

Crossing very readily, as the various species do, it naturally follows that many natural hybrids are found, and Nyman, in his enumeration of European plants, records thirteen, which number is probably considerably under the mark. Those species taking the principal share in the formation of these hybrids are *D. deltoides*, *D. superbus*, and *D. barbatus*. The number of garden hybrids is considerable, and when several species are grown in close proximity it is very rarely that they come true from seed, all kinds of intermediate forms appearing in a batch of seedlings. Propagation by means of cuttings is, therefore, the most reliable way of increasing a particular species or variety.

The following selection includes most of the more distinct and well-defined species in cultivation, some being omitted, owing, not to their lack of beauty, but to the slight differential characters possessed by many of them. The genus may be conveniently divided into two principal groups, and these again may be divided each into two sets.

### Group I. With flowers in heads :

A. Flowers clustered, furnished with numerous membranous or coriaceous bracts.

B. Flowers in approximate heads, no bracts of a distinct character from the leaves.

### Group II. With scattered or solitary flowers :

C. Petals not fringed.

D. Petals fringed.

A. — *DIANTHUS ARBOREUS*. — A frutescent species from Crete, where it is found growing on calcareous rocks near the sea. It forms a

bushy plant, thickly clothed with short, fleshy leaves, bearing heads of pink flowers, the petals of which are bearded, and have dentate margins. A late-flowering plant, it does not bloom till October, and except in favourable localities, in a dry position, it will not survive any but the mildest winters in this country.

*D. ATORUBENS*. — A hardy perennial, growing from 2 feet to 3 feet high, with densely-crowded heads of dark red flowers in summer. A good border plant when grown in a mass, the flowers are freely produced for a considerable period, the stems springing from a tuft of long grass-like leaves. It is a native of South Europe, where it is found in grassy mountain pastures, in dry, open situations.

*D. BISIGNANI*. — Known also as *D. rupicola*, this shrubby species inhabits the maritime rocks of Sicily and Naples. It is a showy half-hardy plant, forming a compact bush about 18 inches high, with slightly fleshy leaves not so dense as in *D. arboreus*. The light-coloured flowers are borne eight to twelve in a head. Under cultivation away from the influence of the sea the leaves are less fleshy, whilst the flowers are often larger and fewer in number in individual heads. Requiring a warm sheltered position it produces its flowers in November. It was introduced into cultivation in 1825.

*D. CAPITATUS*. — This Eastern European species is closely allied to *D. atorubens*, differing in the involucre bracts, which are much broader, with a long acuminate point. The flowers are also lighter in colour.

*D. CARTHUSIANORUM*. — An erect-growing plant, with tufts of long grass-like foliage and tall stems 2 feet high, bearing densely-crowded round heads of small red flowers. Though not so showy as some of the other members of this family, it is suitable for the herbaceous border, where a group of it will keep up a succession of bloom for some time. The petals are bearded and have crenate margins. This species is found in barren places in Central and Southern Europe.

*D. CINNABARINUS*. — Although frequently offered in catalogues, the true plant is rarely seen. It is a handsome species, tall and erect in growth, suffrutescent at the base, with tufts of grassy leaves and stout stems bearing compact heads of true cinnabar red flowers. The glandular petals are paler on the under side, and the calyx is also tinted with red. Although a perennial, it is a short-lived plant in this country, and does not ripen seed so freely as the other clustered Pinks, which fact may account for its scarcity. A native of the mountains of Greece and Asia Minor, it was introduced in 1888.

*D. CRUENTUS*. — Found in Greece and other parts of Eastern Europe, this species very much resembles *D. Carthusianorum* in habit, but the slightly larger individual flowers are of a darker blood-red colour.

*D. GIGANTEUS*. — This tall-growing species in good soil sometimes reaches a height of 4 feet, with stout stems swollen at the nodes, clothed at intervals with pairs of long bright green leaves sheathing the stem at the base. The flowers are numerous, crowded in a close hemispherical head, the surrounding bracts being foliaceous or leaf-like. The dark red petals are toothed and bearded. A perennial, slightly woody at the base, this plant is found among rocks by the seaside in Eastern Europe. It was introduced from Bulgaria in 1828.

*D. INTERMEDIUS*. — Closely allied to the above, this species is found on Mount Olympus in Thessaly, with heads of deep rose-coloured flowers. Var. *ambiguus* is the Servian form of this species.

*D. KNAPPII*. — Made a variety of the following species by some authorities, this yellow-flowered species is a most distinct plant. Although the habit of the plant, which is rather loose and straggling, does not commend itself, it is well worth growing for the colour of the flowers alone. Although equally at home in the border or on the rock garden, it is seen to better advantage in the latter, placed rather high up so that its weak-stemmed flowers fall over a ledge. It is a native of Hungary and countries adjoining.

*D. LIBURNICUS*. — A maritime species, it was originally found on the shores of the Gulf of Quarnero in Istria. It is also found in calcareous soil on the Maritime Alps. About 1 foot to 2 feet high, with capitate heads of bearded red flowers, attended by leafy involucre bracts in August. W. IRVING.

(To be continued.)

## THE LILIES.

(Continued from page 426, Vol. LXIV.)

VAR. *MACULATUM* = *punctatum* differs from the type plant in its taller stature and more robust habit. Flowers large, and heavily dotted in the lower half with black, the dots raised on long petaloid processes which aggregate towards the base, forming a distinct black streak. A very free-growing variety; common in cultivation. Flowers in July and August.

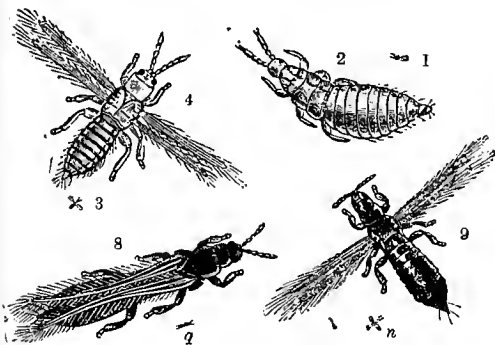
CULTURE AND USES. — This Lily is perhaps better adapted for general border cultivation than any other known to us. It thrives well in soils of deep tilth, rich in vegetable mould, and where the subsoil is a loose gravel. It prefers a full exposure, and though it may be associated with other plants it should have plenty of air. Given these conditions, planting the bulbs early, before the old flower-stems have withered, in order that the autumnal roots may re-establish the bulbs before winter, it is not too much to say the Scarlet Turk's-cap Lily can be grown anywhere. Its first year's growth will be slight, but better than if the bulbs were planted later. Half the failures to establish this Lily are due to late planting, the bulbs lying dormant, or nearly so, for a whole year. This is one of the few Lilies that will tolerate a subsoil of limestone formation, and if rocks approach the surface here and there it will like it so much the better, provided it can get plenty of root run. Soils resting on clay in wet districts must be well drained for this Lily. It is not suited for pot culture as it makes no stem-roots of importance.

*L. colchicum* (Hort.). — See *L. monadelphum szovitzianum*.

*L. columbianum* (Hanson) (the Oregon Martagon Lily). — A pretty miniature of *L. Humboldtii*, and an exceptionally good garden plant, proving very easy to grow in specially selected situations. Bulbs ovate, laterally elongated, white, the scales lance-shaped, curved; roots very stout, proceeding from the base of the growing point only. Stems 3 feet to 4 feet high, slender, hollow; roots none. Leaves whorled, as in *Humboldtii*; small. Flowers 2 inches to 3 inches across, yellow, dotted dull red internally, ten to twenty on an elegant spike, recurved, nodding, resembling in their size, shape, and disposition the European Martagons; anthers yellow, fragrant, common in cultivation. It flowers in July and August; inhabits cool and moist sites in the mountain regions of Oregon and British Columbia. A remarkably dainty Lily.

CULTURE AND USES. — In this we have a Lily which would prove very difficult to grow in the plant border. We must find a cool,

shady slope for it, such as the higher reaches of rockeries would afford, choosing a rocky ledge or deep fissure between boulders where the thick roots could find plenty of moisture, whilst the bulbs would be maintained in a drier condition or they would speedily decay. After sustaining considerable losses in bulbs we copied the essential conditions of its native habitat by throwing up huge ridges of soil and



THRIPS.

1 and 2. *Thrips minutissima*, immature. 3 and 4. *Thrips minutissima*. 5 and 6. *Thrips cerealeum*.

inserting the bulbs in the sides, their roots pointing towards the centre of the ridges, their growing points downwards. This suited the plants admirably, and we can recommend conditions similar to these as being necessary for *L. columbianum* in Britain. There are many places in most gardens whose natural disposition would be all that is required: the sides of a cutting or a natural cultivated bank would do, and this Lily is seen at its best, and grown best raised on an incline higher than the eye level. Planting should be done in October at the latest, before the stems have fully withered. Quite unsuitable for pot culture as its first season's growth is not fully developed.

*L. concolor* (Galish.).—A very variable, neat species from the mountains of Japan, China, and Siberia, long cultivated by Japanese gardeners, who have isolated and grown several forms as yet unknown to British horticulture. Of known forms the scarlet self-coloured (unspotted) plant should be regarded as the type. Bulbs generally compound, two to six crowned, very small, white. Stems two to six, slender, wiry, 18 inches long, purplish below, rooting freely from their bases if the bulbs are buried deeply. Leaves sub-erect, 2 inches long, lance-shaped, scattered. Flowers star-like, one to three on a spike, scarlet, unspotted, paler externally, the petals 1 inch long, lance-shaped, not reflexing but expanding fully, inodorous. Common in cultivation. Flowers in July.

*Var. Ohime* (Hort. Japan), the *L. concolor* of *Botanical Magazine*, t. 1,165, has narrow-petalled smaller flowers, spotted black on the inner surfaces, scarlet. The bulbs are generally larger and one to three crowned.

*Var. Coridion*.—Bulbs, stems, and leaves as in *concolor*. Flowers unspotted, rich yellow, fully 2 inches across. There is also a narrow-petalled, spotted variety of this.

*Var. pulchellum* (Fisch. and Mey.).—Bulbs solitary, as large as a small Walnut, white. Stems 1 foot to 2 feet high, green. Leaves ascending or slightly arching, scattered. Flowers one to four, erect, where numerous a spike is formed, colour reddish crimson, densely spotted crimson in the lower half, the petals slightly reflexing. Rare in cultivation. Inhabits South-Eastern Siberia and China. Flowers in July.

CULTURE AND USES.—This Lily succeeds well in any good garden soil, preferring full sunshine and appreciating to the full a low-growing carpet about its stems, but the carpet should be deep-rooting, because these slender Lilies depend mainly upon their stem roots for support. Helianthemums are excellent plants for this purpose. They afford the necessary sun-screen, they do not grow too tall, and their roots feed at considerable depth. Associated with plants such as these, *L. concolor* and its forms can be grown in any plant border or on a rockery ledge. Their brilliant, starry flowers appear to good effect among alpines and dwarf border plants. They may be planted at any time from September to February. The group is not generally suited for pot culture, but we have grown *pulchellum* well in pans under cool greenhouse treatment. Leaf-soil is the only safe fertiliser; manures of any kind are very detrimental.

G. B. MALLETT.

(To be continued.)

## GARDEN DESTROYERS.

### THE CARNATION — DISEASES AND INSECT PESTS.

CARNATIONS, like most other plants under our care, are liable when under cultivation to be attacked by various insect pests and diseases. Sometimes bad cultivation is the cause; but in other instances it is the healthiest plants and those that have been artificially nourished with stimulating manures that are most frequently attacked. It is quite certain that no plants can ever remain in good health if they are not kept free from diseases and insect pests; and the Carnation is no exception.

I will deal first with insect pests, or the attacks of maggots and grubs, the larvæ of insects.

GREEN FLY is a very troublesome pest, and does more damage to the plants than anything else. It does not disturb the plants out of doors to any great extent; but those under glass are frequently attacked. The best way to destroy them is by fumigation, or if this is not possible dip them in a solution of soft soapy water. I keep a large collection quite clean by fumigating at intervals, on the principle that prevention is better than cure.

THE SPITTLE-FLY will also cripple the plants; but this is not common, and can be easily removed. When a frothy substance is seen on the plants it ought to be removed, and an insect resembling green fly will be found in it; sometimes two are together. A little water should be used to wash off the effects of the spittle or froth. A more troublesome pest than either of these is the

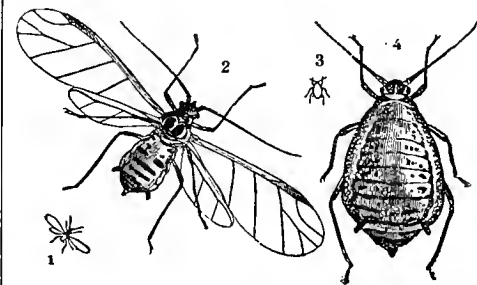
CARNATION MAGGOT.—This is the larvæ of a dipterous fly, which has been named *Hylemia nigrescens*. It greatly resembles the common house fly. This insignificant-looking pest is not to be trifled with, as it does great damage to the plants. It does not attack them so much in the greenhouse as those outside. Seedlings and layers out of doors are badly attacked by it, while layers under glass escape. The flies may be seen busy amongst the plants in April and later. They drop their eggs at the base of the leaves, a small maggot is hatched out, which eats its way down the leaves and into the centre of the plants; it works its way down the leaf under the membrane, a whitish line showing the path it has taken; if its track is followed it may be caught, and if its presence

is discerned in the centre of the plant pick it out with a needle and destroy it. It may be found in the form of a small white maggot or in the chrysalis state, when it is of a brown colour. The centre leaves are often eaten through at the base, and may be pulled out so that the chrysalis or maggot may be found. The plant is often worthless; but it is best to get out the maggots at whatever cost, as the chrysalis may speedily develop another fly, which, in its turn, may be the parent of a fresh brood of maggots; the progeny of these are found on the plants in autumn and winter. There is no other way of dealing with it except to hunt it out as I have described. The

EARWIG will sometimes do much mischief; it makes a snug retreat inside the calyx of the flower, where it finds shelter and food at the same time. It eats through the petals at the base inside the calyx, and the presence of the insect is discerned by the petals falling out. It is very annoying to see choice blooms destroyed in this way. Bean-stalks inserted between the flower-stem and the support will act as a hiding-place for them, when they may be taken out and destroyed. The

EELWORM is another troublesome pest, but fortunately this is not very common; the plants assume a crippled appearance, the leaves are not half their usual length, and their base much swollen and whitish. These are caused by the colony of small nematoid worms inside the leaves; sometimes one or two layers are attacked and others are free from it on the same plant. The only way to get rid of them is to remove the affected layers bodily from the plants and burn them. It is supposed that these worms are in the soil and fasten on the plants. The disease is fully described and illustrated in the "Carnation Manual," published by the Carnation Society. The

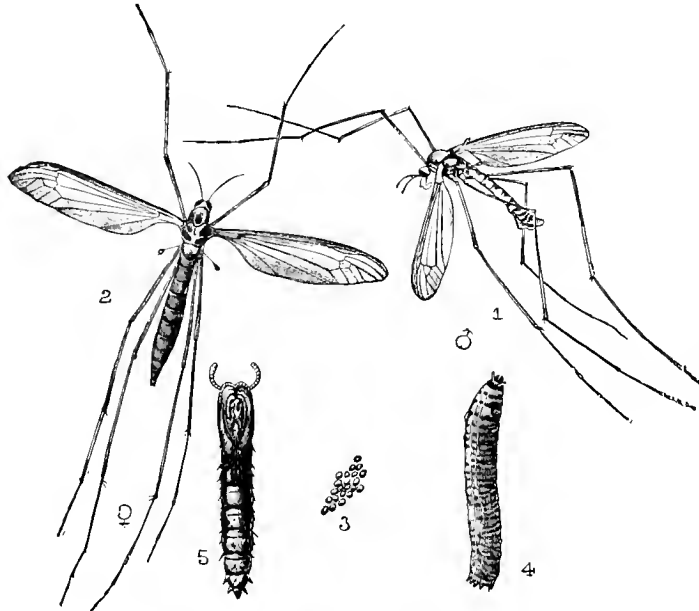
WIREWORM is one of the most deadly enemies of the Carnation. It, like the *Tylenchus* (eelworm), is found in the soil, and it works underground. It is the larvæ of certain beetles belonging to the family Elateridæ, known under the popular names of skipjack, snap-beetle, and click beetle. The wireworm is well known. It is of a brownish yellow colour, and remains in the larval condition for three or four years. It is seldom found in ground that has been cultivated for a number of years. Wireworms are found in pasture land, where the beetles congregate and deposit their eggs, the larvæ living on the roots until they pass through the usual transformations to the beetle state. All sorts of remedies have been suggested for



APHIDES.

1 and 2. Winged females. 3 and 4. Wingless females.

their destruction; their numbers may be reduced by trapping; but there is no way known to me whereby they may be annihilated. Carrots are the best traps, or, failing these, Potatoes will answer. Thick slices of Carrot or Potato are stuck upon the end of sticks and are buried under ground where the wireworms are to a depth of from 3 inches to 6 inches.



DADDY-LONG-LEGS OR CRANE FLY.

- 1. Male Daddy-long-legs. 2. Female Daddy-long-legs. 3. Eggs. 4. Grub.
- 5. Chrysalides.

After a week or so examine them, and the wireworms will be found half buried in the tubers or the Carrots. Hundreds may be killed in this way. The

LEATHER JACKET is sometimes troublesome. It is the larvæ of the crane fly or daddy-long-legs (*Tipula oleracea*); it is a voracious feeder, and is generally found browsing on the plants at night. It eats the leaves, and sometimes gouges the centre out; it burrows under ground in the day time, or, if over-gorged with the leaves of choice Carnations, will be found lying at the base of the plants; it must be caught and destroyed. The skin is very tough, hence the name of leather-coated grub.

THRIPS (*Heliothrips hæmorrhoidalis*) entirely spoils the flowers if the pest is not destroyed in its very early stages. Those who cultivate choice blooms for exhibition place the plants out of doors, and when the flower-buds are well developed, but even before they show the colour of the flower, the thrips get inside and the rich colours, crimson, red, rose, scarlet, &c., become streaked and blotched with white, and the white of flakes and bizarres is made of a dirty colour like the dust on the roads. Syringing helps to keep them off, but may damage the flowers. The best way is to get them into the greenhouse and fumigate with tobacco smoke. By shaking the flowers over the hand the lively little insects may be seen leaping about; it may be necessary to fumigate twice.

RED SPIDER (*Tetranychus telarius*) is a troublesome pest with Carnations under glass. Its presence is discerned by the leaves taking a sickly colour (greenish yellow), and they will soon lose their vitality. The insect is very small, almost microscopical, and the best way is to

syringe the leaves as soon as the pest is seen; this ought to be before the damage is extensive. It appears on the under sides of the leaves first, but soon swarms all over them. The

FUNGOID DISEASES are: First, the formidable disease designated "rust" by gardeners; its real name is *Helminthosporium echinulatum*. The appearance of the fungus when it is first discerned on the leaves is something like a blister. This is caused by the development of the fungus between the membranes of the leaves. Presently it will burst through the membrane, and the coffee-coloured spores are widely scattered. Now, it is evident that no application of any kind of fungus-destroying mixture can reach it before it bursts out, and after the

powder is scattered it is too late. The only real remedy is to look over the plants at least once a week, cut off all diseased leaves carefully, and burn them at once. The other fungoid disease is "Spot."—This is named *Uredo dianthi*, and is a very common disease. The plants sometimes suffer badly both in frames and planted out in the open garden. If the plants are kept in a well-ventilated greenhouse they are not attacked, and if badly diseased are put in an airy part of the greenhouse they speedily recover. The diseased leaves may be cut off. A dry, airy atmosphere arrests its progress. The plants will grow out of "spot," but not out of rust. The rust would ultimately kill the Carnations if it is not exterminated.

BACTERIOSIS.—This disease seems to have been imported from America. Mr. C. W. Ward, in his book on the Carnation, says: "The disease shows readily upon leaves recently attacked, in the form of translucent dots in otherwise healthy foliage. Later on the dots enlarge and run together and the leaf finally turns yellow and dries up. Recent observations of this disease seem to have determined that it is caused by the attacks of various insects,

such as red spider, thrips, &c., and wherever the plants are kept free from these insects the bacterial disease does not seem to develop." I advise all amateurs who would excel in the culture of Carnations to keep the plants in a healthy, vigorous condition by giving them abundance of light and air. See that they are kept clean. Avoid all over-feeding, and in the case of winter-flowering Carnations avoid a high, moist atmosphere. A dryish, buoyant atmosphere is best, with a minimum temperature of about 50° to 55°. Careful watering and a free outlet for the water is essential.

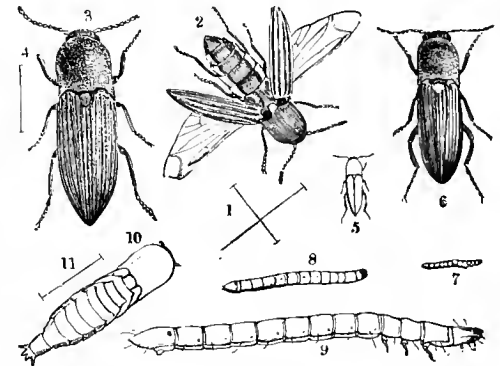
J. DOUGLAS.

### COLOURED PLATE

PLATE 1263.

#### NEW SEEDLING NARCISSI.\*

IN the accompanying coloured plate the flowers represent a few of my seedlings from first crosses between trumpet and poeticus Narcissi. According to the current classification the one bicolor bloom falls under *N. incomparabilis*, the rest under *N. Leedsii*, the *Ajax* parent in the former case being yellow, in the latter white. The section *N. Leedsii* includes certain varie-

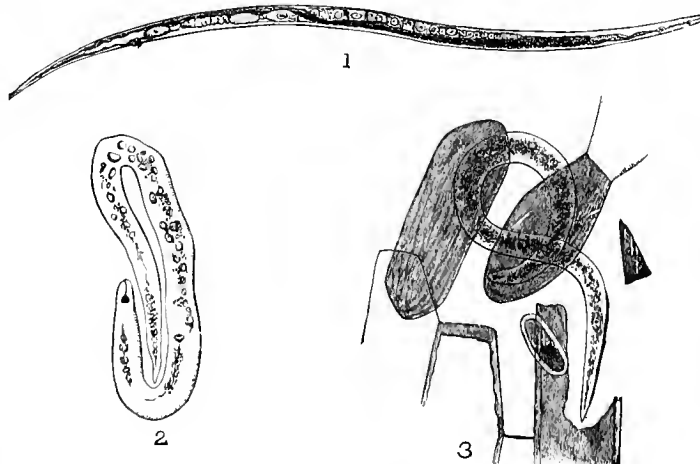


WIREWORMS.

- 1 and 2. *Agriotes lineatus*. 3 and 4. *A. obscurus*. 5 and 6. *A. sputator*. 7 and 8. Wireworms (natural size).
- 9. Wireworm (magnified). 10 and 11. Chrysalis.

ties which up to the year 1884 were classed separately as *N. Vincenti*. It is questionable whether any Narcissi are more beautiful than the finer varieties of *N. Leedsii*, and Messrs. Leeds and Backhouse, out of all their bequest to English gardens, have perhaps given us nothing more valuable than the union of strength and refinement in such flowers as Duchess of Westminster, Minnie Hume, Mrs. Langtry, Katherine Spurrell, and others. It is noteworthy how in these hybrids the infusion of the poeticus blood has altogether dispelled the weak constitution of the other parent, namely, the white *Ajax*. *N. cernuus*, *albicans*, and *tortuosus*, the plants with which Messrs. Leeds and Backhouse seem to have worked, are notoriously difficult of permanent cultivation in most of our gardens, whereas nearly all the *Leedsii* grow and multiply with almost embarrassing vigour. Of newer varieties, perhaps I may claim for my *White Queen* that it still holds the foremost place, but no doubt the future will see a steady improvement in this as in every other division of the genus *Narcissus*. Tall, robust, fragrant, white-petalled, with crowns white or delicately toned with citron, lemon, or salmon, the *Leedsii* Daffodils are scarcely excelled among our spring flowers.

G. H. ENGLEHEART.



STEM EELWORM.

- 1. Stem Eelworm. 2. Stem Eelworm just emerged from the egg. 3. Stem Eelworm egg in tissues of a plant. All highly magnified.

\* Drawn by H. G. Moon.

NOTES ON HARDY PLANTS

THE NARCISSI AT CHATEAU D'OEX.

**I**n the months of May and June the Alps of the Canton of Vaud become white again and as if covered with snow. Seen from Lausanne or Montreux the pastures of the Dent de Jaman, of Les Avants, and of all the neighbourhood are as white as the snow-covered summits. It is a wave of white that, beginning in the lowlands, creeps up slowly but regularly to the highest regions, only dying out in July on the uppermost pastures at an elevation of 4,000 feet.

with pleasure Mr. W. Irving's note about it on page 334. Mr. Irving remarks that "it is not a suitable plant for the ordinary herbaceous border or for exposed situations, but requires a warm, sheltered position in light soil." This is entirely justified by the general experience of the few who seem to have tried *Dicentra chrysantha* in this country. They have not found it hardy, and it is questionable indeed if it will live for many years even at Kew. This is unfortunate, as it is a plant many of us would like to establish on account of its distinct and pretty appearance. Every now and then it has been offered, and once, some years ago, I had a plant, but it failed me, and the infrequency with which it is offered by the nursery trade would point to its having some fault or other,

last winter. If it has been established for any time some of us will make another attempt to succeed with it, inspired by greater hopefulness than we have had for some time.

*Carsethorn, by Dumfries, N.B.* S. ARNOTT.

ROUND ABOUT A GARDEN.

GARDENS FOR PLEASURE.

As a matter of enjoyment, I do not think that it matters much whether your garden is a good one or a bad one, so long as you take an interest in it; for the sum total of pleasure



NARCISSUS RADIIFLORUS IN THE PASTURES OF CHATEAU D'OEX.

It is *Narcissus radiiflorus* of Salisbury, not, as is generally supposed, *poëticus* of Linnaeus, a kind which is very rare in Switzerland, growing only in the neighbourhood of gardens from which it has escaped. *N. verbanensis* (Herb.) is a small and narrow-leaved form with rather yellowish flowers, which grows near the Lago Maggiore and across the Jura in the Canton of Neuchâtel.

The photographs were taken in the pastures of Château d'Oex in the Pays d'Enhaut (Canton of Vaud) above Aigle and Le Sepey. *Floraire, Geneva.* HENRY CORREVOY.

DICENTRA CHRYSANTHA.

I was about to ask if any of your readers had succeeded with *Dicentra chrysantha*, and observed

unquestionably, so far as my information goes, want of hardiness.

There is a figure of this *Dicentra* in the unfortunately short-lived "English Flower Garden" (conducted by the late Mr. W. Thompson) for 1858, which gives a capital idea of the plant, at that time named *Dielytra* or *Dielytra chrysantha*. It had then been newly introduced, Mr. Lobb having sent seeds home to Messrs. Veitch, for whom he was then collecting. It had flowered with them for the first time in September, 1857, and at the time of the issue of the "English Flower Garden" had not been distributed. It never appears, however, to have become for long an occupant of British gardens, although, as I have already remarked, it has been offered every now and then. It would add to the obligations Mr. Irving has already laid us under if he would inform us how long the plant referred to has been at Kew and also if it was in the open all

which the human mind can extract from a piece of ground remains about the same. In India and England I have had gardens good, bad, and indifferent—gardens so small that it was a pleasure to do all the work in them myself, and, on one occasion at least, a garden so large that during three years I never became fully acquainted with the plants in every part of it, nor at any time during that period knew all the men that worked in it even by sight. Yet, looking back, I cannot say that any one garden gave greater pleasure than any other. If you have only room for one Rose bush, you can make the care of it the joy of your life.

THE COMPENSATION BALANCE.

For somewhere at the back of the human mind there is an invaluable compensation

balance, which works out the proportion sum of human happiness so accurately that at the end there is no rebellious fraction of deficit or excess, and we can start with a clean slate for the next sum, contentedly assured that that will work out evenly, too. By this I do not mean that all people get equal pleasure from their gardens. Some regard them as a costly nuisance; others take mild pride in them as an appanage befitting the status of their mansion, and from this stage the pleasure of gardens and gardening ranges in intensity up to the enthusiastic absorption of the triumphant horticulturist, who seems to live for nothing else. Yet in all these diverse minds there is still the compensation balance which makes up for loss of pleasure, through lack of interest, in the garden by added pleasure arising from greater interest in other things. And I think that peaceful contemplation of whatever beauty one's garden may have, which is the crown of pleasure in our work, brings philosophic insight into this truth. We recognise that though seasons change and gardens change with them, the pleasures and worries remain about the same.

#### GARDEN PHILOSOPHY.

You may sit, weather permitting, to enjoy the autumn sunlight and the best vista of your garden on a sheltered seat, as you have sat, weather permitting, in other autumns; and at the back of your mind will be always the half-formulated thought that the year's failures and successes, its clouds and its sunshine, always work out as a fair sum of human happiness, and that there is no need to blot with tears the clean slate on which you propose to begin another year of gardening experience. At the back of your mind, too, lies the germ of unconscious foreknowledge that when the autumn of your own life comes, it will work out as a fair average sum of human happiness, and that the Great Gardener will not be dissatisfied with his work in you. When we dabble with the earth, following man's primæval occupation, we all come to the same human level, and can see the equality and the goodness and the reasonable joy of life. We soak up the knowledge from the soil.

#### THE PARALLEL OF DEATH.

At the same time, who has not felt moments of impatient revolt against the sameness and repetition of the annual results of effort? Foreknowledge of death is always so near to our minds that we resent its suggestion in the annual fall of the leaf and the withering of the flower. We unconsciously resent the new-made beds of earth, which look so like graves, and we put from us the hateful simile that, as we fill the empty places with new generations of flowers, so our places will be as well filled with new generations of men. It is this feeling, not even expressed in conscious thought, which lies, I think, at the back of the common preference for perennials, in a garden of pleasure, over annuals and bedding plants.

#### THE IDEAL PLEASURE GARDEN.

Indeed, the ideal pleasure garden seems to me to be one in which bare, empty earth should never be seen, where there should be no hoeing or digging, save to make room for the introduction of new plants, and where the ground should always be carpeted with green at least. Having carefully arranged the plan of such a garden in your mind, you should *fill* it with plants—flowering shrubs, herbaceous perennials, creeping plants, and bulbs, as nearly in endless variety as you have space for; and after that you should merely regulate its growth, and remove whatever becomes un-

sightly. By helping the weak against the strong, the delicate against the rampant, and snipping off each weed that might thrust itself up to daylight between the plants, you would ultimately get such an unbroken carpet of flowers and greenery as one sees in dreams of enchanted woodland.

#### A LESSON FROM THE RABBIT.

If the rabbit using only his teeth can convert a whole wood into a rank jungle of Nettles and Elder and Ivy by the simple process of gnawing down every plant which he finds eatable, why may not we, using scissors and shears with discretion and industry, convert a common garden into a place where everything flourishes everywhere in proportion to its beauty? How infinitely better, at any rate, would even half-success in such an effort be than the bare, dank flower-beds arranged in depressing parallelograms, which for many months in the year represent the "garden" view of most dwellers in town! Even common wild woodland is prettier and greener in winter than the average suburban garden; and why, when we have all the hardy gems of the world to choose from, should not these small gardens be nooks of fairyland always, instead of looking like miniature cemeteries for half the year?

E. K. R.

## THE INDOOR GARDEN.

### EXACUM MACRANTHUM.

**N**OT so generally met with in our plant collections as it deserves is this beautiful and distinct plant. According to Nicholson the plant was introduced into this country about half a century ago, and even now there are many gardeners who have not seen it. Its rich blue-purple flowers are from 2 inches to 3 inches in diameter, with large conspicuous golden stamens. Its cultivation may be considered more tedious than difficult, as close attention with a view to keeping the plants free from the small yellow thrips, which appear to be its natural enemy, must be given. Its propagation is very easy, as cuttings made from the points of young shoots strike freely during October, or in fact at any time before the embryo flower-buds are formed. The cuttings should be inserted three or four round the rim of a 3-inch pot filled with light, peaty soil. If placed in a bottom-heat of 70° or 75° in a moderately close case or under a bell-glass almost all will root. When rooted pot them singly into as small pots as practicable in a compost similar to that in which they were rooted, and until a little root action is established keep them in a somewhat close case or in the propagating house. Afterwards place them on a raised stage or shelf some 2 feet from the glass, where they will get the maximum amount of light during the winter months, and in a temperature ranging from 58° to 65° by night and to 75° by day when favoured with a little sun. Syringe them carefully once or twice a day when the weather is favourable.

By the end of February the largest plants will be ready for 3-inch pots, and here I may observe that one of the chief points to be noted in the cultivation of this plant is to keep it in as small pots as possible. Although making comparatively strong roots it certainly grows more freely when the roots have reached the sides of the pot. Good drainage is also quite essential, as a liberal supply of water at the root is necessary. Although I have advised peaty soil it must not be understood that the plant will not grow in loam. I find that it roots equally well in either soil, provided the loam is not cut from a limestone or chalky subsoil. From the time of this potting the treatment will vary but little, the house may be ventilated somewhat freely for a stove house, and a light shade during bright sun will be necessary. Should thrips become troublesome dip the plants twice (one

evening intervening) in XL All Plant Wash, and place them on their sides for half an hour, when a sharp syringing with clear tepid water must be given them. Afterwards replace them on the stage or shelf and attend carefully to shading in the event of bright sun. Those plants rooted in October will be ready for their final shift during March and April, when a 5-inch pot will be ample for the strongest plants; in this size pot a plant will carry from ten to eighteen flowers.

Whenever the pots become moderately filled with roots a regular supply of clear manure water must be given them, that made from sheep manure is preferable. The plants will require occasional pinching to keep them bushy as well as to determine their time of flowering. The natural season of blooming for plants rooted in October is from the middle of May to the end of July, and the period of duration about three weeks if kept in an intermediate temperature and shaded from bright sun. Although the plant is described by botanists as an annual, I have grown some plants for two or three years. By cutting them back immediately after blooming, and repotting them shortly after they have broken into growth, they will return a good stock of cuttings, and may be grown on into shapely plants in 8-inch pots by the following year. Seeds may be ripened by the end of August or the middle of September, and I would advise sowing them as soon as matured. I have, however, found that 50 per cent. will germinate when sown in the January following.

J. JACQUES.

### TULIPS FOR EARLY FORCING.

TULIPS, like all bulbous plants when required for early forcing, must have a preparation. It is essential in the first place that the bulbs be of the best, and also that an early start be made by potting, so that root fibres may be produced in abundance. With this achieved the rest may fairly be stated to be within the control of the grower, and indeed this is so to a considerable extent. Another point of equal value is, of course, the choice of varieties most suitable for early forcing; indeed, without a good selection, the grower may find himself in dire straits if, when the bulbs are placed in heat, they fail to respond in due time. For the very earliest work the Van Thols in their many shades are the most suitable. These dwarf and very pretty Tulips are largely grown for the purpose indicated. The immense quantities grown in some establishments alone would certainly surprise those not closely connected with the work. Such as these may be flowered from November onwards. It is worthy of remark, however, that suitable as these are for early forcing in general, they lose not a little even of their dwarfness if over or too early forced. To follow this group in a general way one or two varieties take the lead, and of white none is more suitable and valuable than the well-known Queen Victoria. Naturally grown, this is streaked with rose, but under good forcing the flowers are quite white and pure. A very pretty white single Tulip is L'Immaculé. This responds very quickly to a genial bottom-heat, but it is not so extensively grown as the first, which is also known as La Reine. This is the standard early white single for the market. A good yellow is Yellow Prince, and very fine, too, is Goldfinch, a pure golden-yellow and sweet scented. This will be much grown in the future; it is of good shape and colour. Of red sorts, perhaps Artus and Belle Alliance are among the best for the above work. To force these Tulips with success a bottom-heat frame within the greenhouse is a necessity. The heat should range from 70° to 85°. The temperature must always be moist and uniformly maintained, starting with 70° at the end of a week it may be increased to 80°. With the bulbs in pots or boxes the latter should be set closely together in the frame on a 2-inch thick bed of Coconut fibre, covering them overhead with the same material to a depth of at least 4 inches. This top covering quickly becomes permeated with the heat, and progress is rapid. A slight moistening now and again may be requisite, but the top covering should not be so wet that the material will remain heavily about the top growth.



The root watering must receive attention before covering up. With the lights placed on and the frames darkened these plants may be brought into flower in about three weeks. The covering should not be removed until the buds and growth generally are well through the plunging material. At this time the material may be removed and the plants replaced in the darkened frame for a few days longer. It is most important that these very early forced batches be not exposed to the lower temperature of the greenhouse before the flower-buds are of full size. If taken out when half grown it is quite likely the whole may be ruined by fogs. Nothing is more injurious to the tender flower-bud of the Tulip in such circumstances. Half-developed flower-buds remain as if paralysed, as indeed they are to a great extent. Fully developed buds may be gradually inured to the cooler conditions as required. Later batches are less likely to suffer from this cause. E. J.

## TREES AND SHRUBS.

### MAGNOLIA GRANDIFLORA.

**T**HIS evergreen Magnolia is most satisfactory in this country as a wall plant, and in the south and west of England grows well and flowers fairly freely under those conditions. It is a noble tree, and the large, white, cup-shaped, fragrant blooms are particularly handsome. A high wall facing south, and recesses between house windows, where it is sheltered from cold winds, and also has room to develop, form good positions for this Magnolia. To have an idea of the height and vigour it will attain, *M. grandiflora* should be seen in some of the Riviera gardens. There it forms a tree some 40 feet to 50 feet high, and is one of the most striking objects even in these exceptionally rich gardens. The thick leathery leaves, deep green above and rust colour below, alone make the tree a handsome one; but when in late summer the flowers appear, filling the air with their fragrance for yards around, and especially in the evening is this noticeable, then it forms indeed a noble garden ornament. So far as the South of France is concerned, however, it is unfortunate that this Magnolia flowers in summer, and thus is never seen at its best by visitors, who rarely arrive there before Christmas.

### CLEMATIS CALYCINA.

**T**HE chief interest of this Clematis centres in its evergreen foliage and early flowering. For general usefulness, however, it is surpassed by most of the other species. It is a native of the Balearic Islands, and was named by M. Richards, a French botanist, *C. balearica*, Aiton's name, *C. calycina*, the name under which it is figured in the *Botanical Magazine* (t. 959), being the one which is kept up. It grows to a height of 9 feet or 10 feet, and makes a dense tangled mass, the leaf-stalks twisting round and binding the branches together. The leaves are very dark green in colour, and vary considerably in shape; usually, however, they are ternate, the divisions being again very deeply divided. The flowers vary considerably in size, being from 1½ inches to 2½ inches across. In colour they are greenish white, with a tinge of purple occasionally appearing on the inside of the sepals. The plant continues to grow very late in the year, young soft shoots with flower-buds being produced in December when the weather is mild. Early in December flowers are often to be seen,

while if the weather is mild in January and February numerous flowers are to be found. Though perfectly hardy in the open about London, it is better grown on a wall, the extra heat obtained by this means producing better flowers. At Rose Hill, Falmouth, there is a nice specimen of *C. calycina*, and in the mild climate experienced there it is said to flower remarkably well, the flowers being clean in colour and of good size. W. DALLIMORE.

### JASMINUM NUDIFLORUM.

**F**EW shrubs flower more freely than this old favourite, and throughout winter it is one of the brightest things to be seen in the outdoor garden. As a rule a really good show of flowers is not obtained before Christmas, though a few may be open early in December. The mild weather experienced this autumn has, however, resulted in its being forced into bloom before its usual season, and now and for the past week it has made a very creditable display. Although usually grown on a wall, this is by no means necessary for its successful flowering, for if planted against a rough fence, old tree trunk, or against a group of rough tree branches, it makes a pretty informal mass, the long wand-like shoots smothered with golden blossoms arranging themselves in a free and graceful manner. Planted in company with Ivy, either on a wall or on a large tree root, it is also very pretty, the green leaves of the Ivy setting off the flowers. In some places it is used for hedges, and when left to ramble freely it looks very pretty, but these hedges are too often spoiled by being pruned late in the year, so shearing off most of the flowers. When any pruning is required it should be done immediately the flowers are over. This gives a good long growing season. W. D.

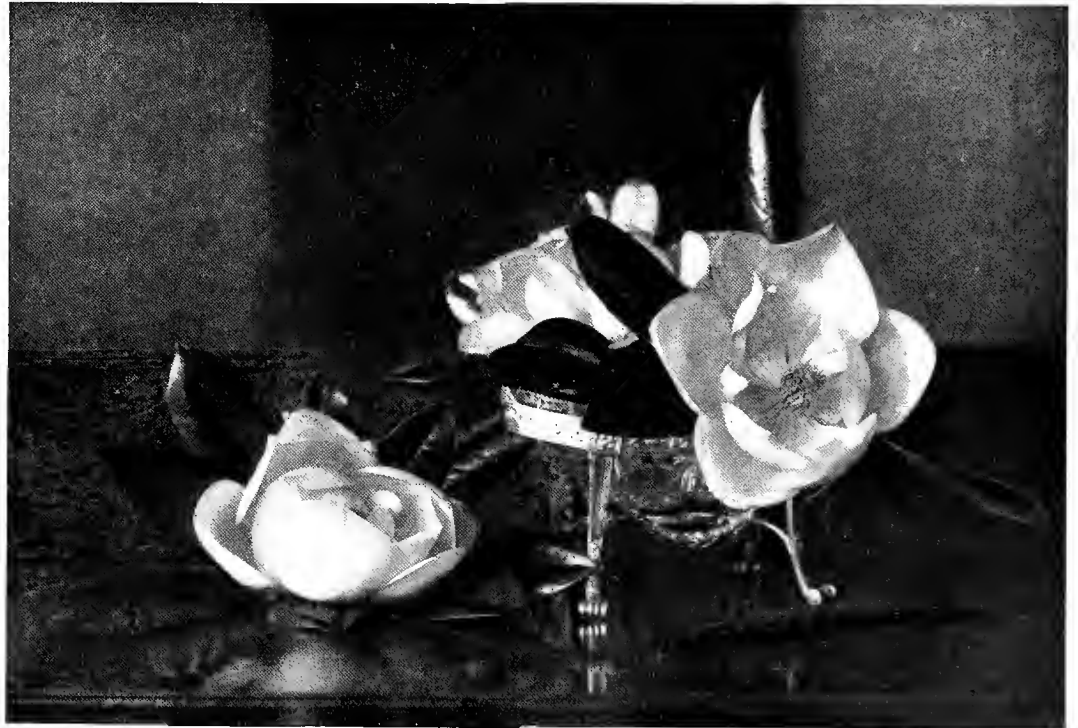
### AROMATIC SHRUBS.

**I** SPENT portions of February and March in the Riviera, but owing to illness I was unable to do much plant-hunting. During the time, however, I spent some days at Cap Martin, and as the hotel is in the very midst of the natural woods I was able to get some walks in them without fatigue. It would be hard to find more delightful woods; they go down to the sea, and walks have been

made through them, and the hotel proprietors have had the good taste to leave the woods as much as possible in their natural state. As I walked through them I was struck with the abundance of sweet-scented shrubs, the whole underwood being a mass of Myrtle, Rosemary, Pistacia, and Thyme, with a mixture of Rue. There were other sweet-scented plants, but these were the chief shrubs, and I noted many things in connexion with them which I think worth recording.

The shrubs I have named are well known, but each of them has a botanical and historical and literary interest. The five belong to different botanical families, but they have some rather curious points in common. They are all strictly southern plants, none of them being really wild north of the Alps. Rosemary has been reported from one place in Switzerland, but the botanists are agreed that it is an alien. They all, with the exception of Rosemary, bear their old Greek names, which they have carried with small changes into every country in Europe. The Greek name of Rosemary is not exactly certain; it was probably Libanotis, but it very early got the name of Rosmarinus, and is so named by Horace, Ovid, Virgil, and Pliny, and it carried the same name into every European country. The five are lovers of the sea, and while one shows it in the Rosmarinus, another of them brings to our memory Virgil's description "*amantes littora myrti*"; and though all southerners, they have all long been special favourites in English gardens, the Myrtle, Rue, Thyme, and Rosemary having been grown in England from the very earliest times, and the Pistacia was grown by Evelyn in the seventeenth century, and it was probably grown much before his day, as he speaks of it as a well-established shrub, and lays no claim to its introduction. And as a last point of resemblance they are all highly aromatic shrubs, so much so that if anyone was asked for an instance of an European aromatic shrub he would certainly name one or more of these, perhaps all; and that brings me to the proper subject of my paper.

I confine myself to the five shrubs I have named; and I said that each has its special botanical, literary, and historical interest. I must say a little on these points, but it must be very little. The Myrtle was a favourite both with the Greeks and Romans; with the Romans especially it was almost



MAGNOLIA GRANDIFLORA.

as great a favourite as the Rose; it was more abundant in Italy and Liguria than in Greece, and the best was said to come from Egypt. It is not found wild north of the Alps, and is never far removed from the sea, and it is very possible that this connexion with the sea may have been in Shakespeare's mind when he contrasted "the morning dew-drops on the Myrtle leaf to the great sea" ("Anthony and Cleopatra"), and in his time the Mediterranean was always known and spoken of as the great sea. The name and the plant very early came to England, and the name was soon transferred to the Gale or Bog Myrtle, with which, however, it has no connexion. The Rosemary has very much the same history, but was a greater favourite in English gardens than the Myrtle, because of its greater hardiness, and it very soon found its way into English literature. It had a great celebrity as a bee plant, and in the Riviera, as at Narbonne, it has the credit of giving a peculiar flavour to honey. The Rue, like the Myrtle and Rosemary, as an European plant is strictly Mediterranean, though it has become naturalised in several other parts. It was certainly in England in the eighth century, and was reckoned among the most valuable plants for medical purposes, but for all commercial purposes it has long been supplanted by its near relation the Orange; they both belong to the same natural family, the Rutaceae, but the Orange as a Riviera plant is the head of the family.—H. N. E., in *The Pilot*.

(To be continued.)

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE FLORIST'S CARNATION AND PICOTEE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to read the remarks of the Rev. F. D. Horner; it reminded me of our discussions in the gardening Press a quarter of a century ago. The most redoubtable champion amongst us was Mr. E. S. Dodwell. One of Sir John Tenniel's most characteristic caricatures of the late Mr. W. E. Gladstone took the form of an exceedingly fierce rough terrier dog, with the motto, "Who said atrocities?" Such was our friend Mr. Dodwell when any one touched the Carnation not exactly to his mind. We all liked to read his remarks; and we are delighted with those of our friend Mr. Horner, although he has nothing of the rough terrier dog. I do not see where I am wrong, because both generically and specifically there is no difference between a Carnation and a Picotee; they both belong to the same genus, *Dianthus*, and also have the same specific form—*Caryophyllus*. Surely Mr. Horner will not contest this? They differ in the colour of the flowers, as I stated. Lower down Mr. Horner quotes me as stating that "really there is no difference between a Carnation and Picotee." If you separate a man's words from the context you may make him say almost anything you like. He omits "except in the colour of the flowers." Mr. Horner knows very well indeed that I know the Carnation and Picotee as well as he does; that many of the best Picotees, both yellow and white ground, were raised by me from seed. On December 12 one of the leading exhibitors was showing me his plants; he told me that Fortrose, a rose-edged Picotee, was the best in existence, and that he had won "premier" with it three or four times; moreover, it won "premier" for me when I first introduced it. In yellow ground Picotees my seedling, Mrs. Robert Sydenham, held the highest position for many years.

I have won many prizes for Carnations during my thirty years or more of exhibiting, but never was disqualified owing to my mistaking a Carnation for a Picotee. Even a "colt," as they designate young exhibitors in the North, never could make such a mistake. I have frequently described the difference between a Carnation and Picotee; but

the point seems to be, are they or are they not generically and specifically distinct? I maintain they are not. If my good friend maintains that they are specifically distinct, will he kindly let us know the two distinct species. The florist Carnation is marked with flakes and stripes on the petals, so was the Picotee for many years, but the old florists found chance flowers with the margins of the petals marked as well as the other part, and in the course of years (generations, in fact) they selected and selected until in white grounds we have Ganymede, Mrs. Gorton, Zerlina, Somerhill, Mrs. Sharpe, Fortrose, &c. In yellow grounds we have Childe Harold, Alcinous, Gertrude, Mrs. Walter Heriot, Othello, Lady St. Oswald, &c. I have sent up the names to the Editor all in their various classes. I thank Mr. Horner for all the useful information he has given us, and especially in his statement that the Picotee is prone to produce weak bars, streaks, and dots over the ground colour. Pray, my good sir, what is this but the Picotee harking back to its primal source? In my work of seedling raising (and I have raised thousands of Picotees from seed) I have raised scores of self-coloured Carnations directly from Picotee seed.

One of the best Picotees twenty-five years ago was Her Majesty. It has pure white flowers, with a very narrow margin of purple; this was carefully crossed with another Picotee of a similar character. This cross produced self-coloured Carnations, one of which was sent out as Purple Emperor. Surely, when self-coloured Carnations are raised directly from undoubted crosses of white ground Picotees nothing more is needed to prove their descent from one primal source. JAS. DOUGLAS.

### UNTRUSTWORTHY ADVICE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Most of those who study the Horticultural Press do so in order that they may learn, from the writings of acknowledged experts in the different sections of gardening, the correct treatment of their favourite subjects, the peculiarities and requirements of plants new to them which they may wish to possess, and the best methods of increasing the attractions of their gardens. The amateur generally believes implicitly in the reliability of the advice thus given, and with good reason, for the writers are, almost without exception, from their wide experience, well qualified to speak with authority upon the subjects of which they write. Occasionally, however, one chancance upon an instance where this reliability is conspicuous by its absence.

Such a case attracted my attention a few days ago while scanning the gardening column in a daily paper of wide circulation. The paragraph in question was devoted to wall plants, and lists were given of tender, half-hardy, and hardy subjects for covering walls. In the list of tender wall plants was included the absolutely hardy North American *Aristolochia Siphon*, also *Acacia affinis*, and *A. dealbata*, which two are held to be synonymous at Kew.

Among half-hardy wall plants the North American *Tecoma* (*Bignonia*) radicans, *Forsythia suspensa*, and *Jasminum nudiflorum* were named, all three of which are hardy, and *Berberidopsis corallina*, which bears glowing red flowers, was stated to produce "berries only." In the list of hardy wall plants were to be found *Carpenteria californica*, *Buddleia globosa*, *Benthamia fragifera*, and *Veronica*. None of these four can, I think, be termed absolutely hardy. I have seen a large shrubby *Veronica* growing at the foot of a wall killed in a severe winter, even in the south-west. *Benthamia fragifera* is certainly not hardy except in the south, and is no more fitted for a wall plant than is an Elm, for in a genial climate it becomes a forest tree 60 feet or more in height. *Heliotrope* is given as a half-hardy wall plant and classed with *Jasminum nudiflorum*, but is less hardy than any of those named in the list of tender wall plants, being susceptible to a few degrees of frost when not grown with other climbers that shelter it or given artificial protection. Such advice as this, if acted upon, would only lead to disappointment; but, happily, one does not meet with such

glaring misstatements in papers entirely devoted to gardening interests. S. W. FITZHERBERT.

[We quite agree with our correspondent. The horticultural contributions to the general Press are generally so inaccurate that we fear those who act upon the advice go sadly astray.—Ed.]

## THE KITCHEN GARDEN.

### EARLY BROAD BEANS UNDER GLASS.

BROAD BEANS are not great favourites in many houses, and this may be owing to various causes. The pods are too large, the seeds too old, and the flavour harsh. These objections do not apply to Broad Beans sown at this season either in pots, boxes, or frames, and finished in the open. Grown thus, and if the pods are gathered young, the Beans when cooked are equal to Marrow Peas. The latter may be thought a strong assertion, but it is true. Many may think it out of place to give glass culture to this vegetable, but this is not so. We often bestow more labour upon vegetables of less value. The Broad Bean is of better quality in May and early June than in July and August. To get an early crop I would advise sowing now, and give cold frame culture for the next two or three months, say till the end of February. Frames may not be available. Many shifts may be made, but by the term sown under glass, I mean where protection may be given for a time, so that such structures as cool fruit houses, Peach cases, or anywhere giving shelter, and when the plants can be grown near the light. I prefer frames if they can be spared, as the plants can be grown near the glass and given plenty of air in suitable weather. The old system of sowing Beans in November is not practised much now, and it has little to commend it as the results were so uncertain, and I do not advise sowing in heat. I have seen the seeds sown much later and germinated in a warm house, but it weakens the plants. It is far better to sow much earlier and give a longer season's growth without heat at all. When sown in pots, I prefer a good-sized pot—5 inches or 6 inches—and four seeds in the smaller size named. If sown thicker, early thinning should be resorted to.

Beans like a good holding soil, but the top soil should not be too heavy at this season of the year. We use a liberal quantity of wood ashes with heavy loam, and this promotes a sturdy growth. Seed may also be sown in boxes, and these plants, when large enough, are carefully lifted with a ball. Pots are much the best, as here the mass of earth and roots is intact. The plants are housed till the weather is suitable for planting out, which depends upon the season, but plants not given any heat are much harder than those raised otherwise, and they do not flag or feel cold winds if well moulded up at the time of planting. Plants sown under glass are much dwarfer than when grown in the ordinary way, so that it will repay the cultivator to reserve a warm corner for this crop. The rows may be much closer (15 inches to 18 inches), but the plants should nearly touch in the row, so that no space is lost. At planting each lot should be made firm, and they do best in a deep drill, but the soil should be made rich and be prepared some time in advance of the planting, so that any food placed in the soil is in good condition for the roots to lay hold of.

A south border will be a good place, and it is surprising what a quantity of pods plants raised thus will give, and some weeks in advance of the seeds sown in the open. The Bean is usually a long time germinating in cold soil. As regards varieties, I like the medium long green pods best. I do not think the very long podded sorts are so good. By this, I mean such as the Mammoth varieties, the small section of which—the Early Mazagan, Beck's, and Dwarf Green—are liked by many, but I prefer the ones named. If the plants are kept dwarf, almost any of the early varieties may be relied upon. Much depends upon the soil and culture given. G. WYTHES.

WINTER CUCUMBERS.

VARIOUS notes upon the important crop of winter Cucumbers have recently appeared in THE GARDEN. As all growers know, a good deal of skill and close attention are necessary to obtain a fair crop of Cucumbers during the winter months, and especially in the neighbourhood of large towns, where the atmosphere is impure. Keeping the growths fairly thin, so as to admit as much light and air as possible, taking care not to crop the plants very heavily at once, but endeavouring rather to keep them in moderate bearing for a considerable time, adding fresh light soil as new roots appear, careful watering, a moderately moist atmosphere, and preventing the formation of seed are the chief objects to have in view to keep winter Cucumbers in good health.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

**W**HILE the gardener's life is one of continual forecasting, this is the season when he might with profit indulge in a retrospect of the year that has passed. During that period many alterations and improvements will have been thought of. This is the season when any change in the plan of cropping or style of garden can be best carried out before the rush of spring work comes on. The new year bids fair to open with fine weather, permitting digging and trenching operations to be pushed forward. All vacant plots should be trenched or dug as soon as possible. Where it is intended to grow Onions the ground should be deeply trenched and a liberal supply of well-decayed manure dug in. A good dressing of soot scattered on the ground before trenching, and a slight one after that operation, will benefit this important crop. Borders with a southern aspect should receive immediate attention and the ground prepared for the first seed sowing. For the earliest Peas trenches about 18 inches deep should be thrown out the full width of the border and some well-decayed manure placed in the bottom, or, as some growers prefer, leaf-mould. The soil should then be turned back, and the trenches so treated marked with a short stake at each end.

SEAKALE.

Pots may be placed over crowns in the open and the whole covered over with rough well-fermented manure and leaves. A supply should also be lifted for forcing in the Mushroom house, this, according to requirements, to be repeated every third week.

ASPARAGUS.

Where this vegetable is in demand it may now be forced with ease either in the Mushroom house or on hot-beds. See that the crowns are at least three years old. If grown on hot-beds place about 3 inches of soil on top of the heating material for the crowns to rest on; give the crowns a covering of about 5 inches of light soil. Airing on all favourable occasions must be carefully attended to.

Take every advantage of dry or frosty weather to collect and burn all garden refuse. Inspect stock of Pea and other stakes. Place manure on all ground still to be dug. THOMAS HAY.  
*Hopetoun House Gardens, Queensferry, N.B.*

INDOOR GARDEN.

FIRST review the temperatures of all plant houses and ascertain whether for the time being they are too high or too low, as an undue degree of heat in either respect is productive only of disappointment. A too high temperature at this early season is obnoxious even to exotics, for they are forced into

an unnatural effort to make growth, with the result that they soon become attacked by thrips, aphid, &c. A night temperature of 60°, with a rise of 5° during the day by artificial aid, is high enough for the East Indian Orchid house, whilst the plant stove may fall as low as 55° at night and rise to 60° in the daytime. Begonia Gloire de Lorraine will flower satisfactorily in a night temperature of 50°, with a rise of 5° during the day. The greenhouse, in which usually there is a varied collection of plants, should have a night temperature of 45°, the temperature during the day being regulated according to circumstances.

TREE CARNATIONS

will do well in a temperature of 50° at night and 55° during the day, but that for Malmaison Carnations may fall to 45° at night, and should not be higher than 50° during the daytime. Give air on all favourable occasions to the occupants of the two last-mentioned houses. A thorough cleansing of the plants from insect pests, as well as the interior of the houses in which they are situated, at this time of the year is of paramount importance. Wash well the woodwork, glass, and walls of the structures with hot water and soft soap, and

light. Plunge the latter in a gentle bottom-heat at first with an atmospheric temperature of 65° to 70°, raising it to 80° as growth advances. Retarded crowns may be started in a cool, close frame, and afterwards be removed to a light, airy position on the greenhouse shelf. J. P. LEADBETTER.  
*The Gardens, Tramby Croft, Hull.*

FRUIT GARDEN.

FRUITING PINES.

To provide a supply of ripe fruit in May and June no time should now be lost in getting the Pine stove ready for the earliest Queen plants. Thoroughly wash and paint the pit if necessary, remove all dirt from the tan or leaves, and add fresh material to produce the bottom-heat required; this should range from 85° to 90°, if it exceeds the latter the pots should be shaken a little to allow the heat to escape by the sides of the pots. Where hot-water pipes are used a steady bottom-heat is more easily maintained. When the bed is ready for the plants, select the Queens which are thickest at the collar and open in the centre, as these are most likely to show fruit before making fresh growth. Remove a few of the short lower



A HOUSE OF WINTER CUCUMBERS IN A MARKET NURSERY.

finally, directly the walls are dry, coat them with lime-wash. To provide

CUT FLOWERS

bring into heat in batches to suit requirements early Roman and Italian Hyacinths, Paper White, double Roman, and Snowflake Polyanthus Narcissi, with the old double Daffodil (*N. Telemonius plenus*), *N. princeps*, Freesias, Snowdrops, Crocuses, Chionodoxas, Tuberoses, and single Duc Van Thel Tulips. A vinery that is just started is a capital place in which to introduce an early batch of *Rhododendron præcox*, an old but too rarely grown plant; *Azalea mollis*, *Spiræa confusa*, Lilacs Charles X. and alba virginialis, *Staphylea colchica*, the pink-flowered *Prunus triloba*, *Azalea Deutsche Perle*, *Deutzias*, *Choisya ternata*, *Spiræa astilboides*, Solomon's Seal, and *Delytra spectabilis*. The forcing—if it may be called such—of

LILIES OF THE VALLEY

has become an all-the-year-round duty, for between retarded and ordinary crowns they can be had in flower every day in the year. The crowns, whether retarded or not, must be covered lightly over with loose Moss to keep them moist and to subdue the

leaves from the stems and any loose soil: top-dress with rough fibrous loam, adding a little bone-meal and soot; it must be firmly rammed round the bases of the plants. Plunge the plants about 2 feet apart and water thoroughly with clear water. Keep a moderately moist atmosphere by damping the paths and walls and filling the evaporating pans. Water may now be sprinkled on the surface of the beds on bright days only. Maintain a night temperature of 65°: on sunny days the maximum may reach 80°, a little air being given at 75°. Close early, and get all the assistance possible from the sun.

SUCCESSION PLANTS

must be kept in a steady bottom-heat of 70° to 75°. They must not be allowed to get dry at the roots or they are sure to show fruits when the temperature is raised. The treatment of later plants is the same as that already recommended.

WINTER CUCUMBERS.

Owing to an insufficiency of light and an excess of moisture these have required much care and attention. A thin mulchiog with rich soil (and a little Thompson's Manure added) to plants which

have been fruiting some time will be of great assistance. Remove any old growths, and introduce young shoots from as near the base as possible and keep the crop down to a reasonable limit. Seeds should now be sown of Improved Telegraph or some other approved variety, one or two seeds in a 3-inch pot and plunged in a bottom-heat of 75°. When the seedlings are well through the soil place them nearer the glass. Make up a bed of fresh leaves and place mounds of soil about 3 feet apart. Plant out the seedlings when they have made three leaves and encourage a vigorous growth. Pinch the growths but little, keep a night temperature of 68°, and maintain a moist atmosphere. F. JORDAN.

*Impney Gardens, Droitwich.*

## ORCHIDS.

In commencing this series of notes on work in the Orchid houses, it is my intention to write precisely what we are practising at Gatton. Although the methods now adopted are so contrary to those advocated a short time ago, I shall write with every confidence that growers who will break away from the old-fashioned methods will soon see a marked improvement in their plants. The new style of potting, like all other new introductions, will not find favour with some. They will prefer to continue in the way we were all following a few years ago. I have no hesitation in saying that there will be very few of that class left in the course of another year or so. Many Orchids that were supposed to live for a few years after being imported to this country are now being made to grow freely, such as *Oncidium varicosum* Rogersi, *O. lanceanum*, and *O. tigrinum* that were fast dying under the old methods, have been given fresh life and made to produce fine bulbs and leaves, and carry fine spikes of flowers since they were treated differently.

Such cases as those where sadly deteriorated Orchids have been restored to health and vigour are convincing proof of the desirability of changing from the old method to the new before one's plants have begun to deteriorate. I shall from time to time as the seasons for repotting come round give the form of compost, and the advantages gained by cutting away useless back pseudo-bulbs when repotting, and the importance of using a natural drainage. We have found a very great improvement in our plants since we gave up the old method of potting, they have stouter bulbs, leaves of greater substance, and consequently the flowering season does not reduce the vitality of the plants to anything like such a degree as was the case in the past.

### PREPARATION FOR POTTING.

All should see that they have in stock good fibrous peat, loam, sufficient sphagnum moss to last till April, some good Oak leaves (1902) that have not been subjected to fermentation, and a fair quantity of thoroughly sterilised rhizomes that have been taken from the peat; it is of great importance to ensure thorough sterilisation of the rhizomes, otherwise harm instead of good may accrue from their use. I am convinced that these rhizomes, which have been so freely thrown away in the past, will play a most important part in Orchid culture in the future.

Although this is only the first week in the new year the time for repotting or resurfacing will soon be here. Valuable time is often lost through having to wait for this or that material, and often the roots are too far advanced for repotting to be done without injuring them. W. P. BOUND.

*Gatton Park Gardens, Reigate.*

## FLOWER GARDEN.

### WALL PLANTS.

THE recent rough winds will probably have detached some branches of climbers and other shrubs trained against walls. Soon after the winds have abated these plants should be looked over and all loosened shoots made secure. In the case of high walls and dwelling-houses it is not wise to attempt any ladder work while the wind is blowing, as it frequently has a nasty habit of

curling around corners in a dangerous manner. *Chimonanthus fragrans* and *Jasminum nudiflorum* will now be opening their earliest buds, and if bad weather is anticipated some protection should be afforded. For this purpose fronds of Bracken are most useful, or sprays of *Quercus Ilex* and short branches of the common Silver Fir. If required for house decoration branches of the Jasmine cut and opened in water in a warm house will be found to be of a better colour than when cut direct from the plant. The Winter Sweet also opens well in water. Single flowers floated in finger bowls or small glasses are delightful; the warmth of the room draws out the fragrance surprisingly.

### LAWNS.

As often as time and weather permit the lawns should be well swept when necessary and rolled. Worm casts are not nearly so troublesome as they were a month or so ago. If there are any bare or rusty-looking patches, and it is not desirable or convenient to relay turf, a sprinkling of any approved artificial manure will speedily improve the appearance of the grass. If the manure is mixed with twice or three times its bulk of fine dry soil or dry sand it can be spread more evenly. Except in a few favoured localities, it has of late been much too wet to attempt such work as relaying turf, but advantage should be taken of any spell of dry and mild weather to complete this work before the year is far advanced.

### SNOW.

When the workmen live at any distance from the gardens they should be given to understand that in the event of a fall of snow on any Saturday evening or Sunday morning they are expected to come on the Sunday and do such necessary work as clearing paths and shaking the snow from young conifers and any other evergreen trees and shrubs which are likely to be broken by the weight of snow. A supply of long poles should be kept in a convenient place. If any branches are broken off the wound on the tree should be made smooth and coated with tar, thick paint, or any approved mixture to prevent the ingress of moisture or microbes.

### EMPTY VASES.

After heavy rains all empty vases standing out of doors should be examined to see that the drainage holes are clear, otherwise water will collect which if frozen would probably burst the vases. Two or three fallen leaves are often sufficient to stop the free passage of rain water.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

[Readers in the Midland and Northern Counties need not fear to follow the advice given by Mr. Bartlett, for Pencarrow Gardens are in the north of Cornwall, where the cold is often most severe. —ED.]

## CHRYSANTHEMUMS.

IN spite of all that has been said to the contrary as to the Chrysanthemum not being as popular as it was a few years since, there is not the slightest doubt that it still retains its exalted position as the Queen of Autumn flowers, and so long as novelties of the various sections are annually introduced, so long will the public taste be gratified. The great diversity of form and colouring creates fresh enthusiasm, and though some regard the large, massive flowers as worthless, the great majority see much to admire in them.

### PROPAGATION.

Ultimate success so much depends on a good start being made that too much care can hardly be bestowed on the propagation and selection of cuttings. The first week in the new year will be quite early enough to begin striking the cuttings to produce exhibition flowers by November next, providing the old stools have been properly treated, as by that time the shoots should be clean and sturdy. The soil, which should be got in readiness and thoroughly mixed a few days before it is used, must be of a fairly light, porous nature. Light, fibrous loam and well-decayed leaf-soil in equal parts, with a plentiful supply of coarse

silver sand, will make a suitable mixture, care being taken to have it in a nice workable condition, *i.e.*, neither too wet nor too dry. The cuttings should be inserted singly in 2½-inch pots, which should be thoroughly cleansed, and well drained by placing one inverted crock over the hole, covering this with very finely broken pieces, over which should be placed a little fibre, free from soil, taken from the loam heap. Ensure the compost not becoming mixed and clogging the waterway. As I have often pointed out, this is of the utmost importance when potting Chrysanthemums in every stage. The soil should be pressed in moderately firm, and the surface covered with a little silver sand before inserting the cuttings. Small frames or hand-lights are well suited for rooting them, and these should be placed on the stages, either in an earlyinery, orchard, or greenhouse, and three-parts filled with Cocoanut refuse, when the cuttings may be attended to with ease and comfort, whatever the conditions of the weather outside.

Before taking off the cuttings thoroughly fumigate the plants to ensure freedom from insect pests. Choose the strongest, short-jointed growths, selecting, as far as possible, root-suckers, as these are less liable to produce premature buds. Prepare the cuttings in the ordinary way, which should be about 3 inches in length. Do not take off more at the time than can be speedily put in, never allowing the foliage to flag. Each cutting should be correctly labelled as it is put in, thoroughly water in, and keep close for a few days. These will probably require to be damped over daily in early morning, but at the same time this should not be done so as to cause the foliage to damp. It may be necessary in very dull weather to remove the lights for an hour or so during the morning. Immediately the cuttings begin to push forth young roots the lights should be carefully opened, and if this is done the young plants will quickly gain strength. Undue forcing in the early stages of their growth should be rigorously avoided, and every encouragement be given to induce the growths to be made in as natural a manner as possible, and this can only be assured by assigning to them a cool, light, and airy position, such as shelves near the glass, after the pots become filled with roots. An up-to-date collection can only be maintained by adding annually a few of the best novelties and excluding some of the older ones, which are played out and superseded by others. It is yet full early to propagate Pompons and general decorative varieties; but the old plants which are required for stock should be well treated, and arranged either in cold frames or cool houses to ensure a plentiful supply of free healthy cuttings later on.

### LATE-FLOWERING VARIETIES

have done remarkably well this season, and many which were specially treated to flower now are giving a wealth of blossom which is simply invaluable in every establishment where cut flowers are in demand. Never allow these to become infested with green fly, and to assist the blooms to develop properly frequent doses of manure water should be given. E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

## THE FRUIT GARDEN.

### FRUIT TREE PRUNING.

THE old story of the man and the ass perpetually "renews its youth like an eagle," at least as far as the tending of contending advice goes. Here we have in the last number of THE GARDEN Mr. Tallack sitting on Mr. Owen Thomas. It is to be hoped he will not find it a prickly seat as in the case of

"The old idiot whose folly  
Induced him to sit on a Holly."

Joking apart, the question is really a very important one. There is hardly a more important crop than that of Apples, and it is of the keenest interest how best that crop is to be secured. Mr. Tallack has noticed that I expressed my intention of following the advice of Mr. Thomas, though

somewhat unwillingly, as my own experience ran rather counter to it, but my modesty led me to think he was more likely to be right than I was. I also said it would be extremely desirable to have the question ventilated and dealt with by the most experienced Apple growers in the kingdom. Mr. Tallack is the only one who has responded, and that only *longo intervallo*, and I therefore now call upon the editor to endeavour personally to elicit such an opinion. No more interesting subject can occupy his pages.

While on this subject I wish to bear my testimony to the value of Mr. Petts' articles in some late issues. A book on pomology dealing exhaustively on the subjects, on which he of course merely touches the fringe, is much needed, and would be of great practical use. Amateurs as a rule know very little about the Apples they ought to plant. If in the book I suggest—and perhaps Mr. Petts might take up the idea—there were, say, 100 of the best Apples treated of—soil, climate, and requirements all taken into the fullest examination—hundreds of purchasers would know what to do instead of groping blindly in the darkness as they do now. I suppose, as he says, there is no absolutely perfect Apple. Were I to be called on to name the variety which comes nearest to it I would say Bismarck, a great cropper, a splendid grower, a most hardy variety, a very handsome, well-shaped fruit, and possessing Mr. Petts' favourite quality of weight. If some hybridiser were to produce a Bismarck keeping till June he would deserve an Olympian crown.

County Cavan.

D. K.

ROOT PRUNING FRUIT TREES.

It is not unusual for those who purchase trees to complain after a few years that, though the trees have grown nicely, they have failed to produce fruit. When a tree is of sufficient size to bear, and shows no disposition to do it, root pruning will cause it to bear. Many will prefer to wait a few years more rather than check a tree's growth by root pruning it, but others are too impatient to wait. It is on record here that a nurseryman had to "put the law" on a customer who refused to pay for Pear trees furnished because there was no "fruit on them within two or three years," which statement made to him at the time of purchase led him to take the trees, he averred. He lost his case, however, the nurseryman properly contending payment was due when the trees were delivered, and that the statement that the trees would bear in two or three years was but an opinion solicited and given without charge, and had nothing to do with the sale of the trees. This man was certainly in a hurry did he look for much fruit in that time, but it is not at all uncommon for Bartlett Pears to bear in a year or two from planting, and every year thereafter. Customers who may wish to do it may safely root prune their trees to promote fruitfulness. The practice is to dig a trench around the tree a few feet from the trunk and sever all the very large roots met with, or a goodly portion of them at least. This, if done in spring, will surely cause fruit-buds to set, to give flowers the following season. It could be done at any time between now and spring. This root pruning practice is but the following out of what all florists and gardeners know, viz., that a potbound plant will flower before one that is not potbound. It is the check to growth that causes the formation of flower-buds in both cases.

JOSEPH MEEHAN, in *The Florists' Exchange*.

SEEDLING APPLES.

AMATEUR gardeners may be better employed than in raising Apples from seed with a view to securing new varieties. Not only have they to wait some years before they see any results, but too often they are not judges of the merits of any seedlings they may raise. Again, it is found that any true line as to the merits of any seedling fruit cannot be obtained from a pure seedling tree. All fruits that are put into commerce have of necessity to be worked on stocks either by budding or grafting, and it is only when so worked and grown for a few years that a true test of the merits of a fruit can

be formed as to quality, cropping, keeping, &c. But really few persons—except they have special facilities for such purpose or are growers on a large scale—know of the qualities of the many named Apples we have. Many new ones are from time to time being put into commerce, but it is doubtful whether one now excels in any way varieties of from twelve to twenty years old. A. D.

PLANTING RASPBERRIES.

THE earlier this is done the better, so that the canes may form new fibres before the soil loses what little warmth it may have accumulated during the past disappointing summer. It is usual after planting to put a mulch of strong manure round them, which serves the double purpose of lessening the severity of the frost upon the new and tender rootlets, and of preserving the moisture in the surface soil the following summer, the Raspberry, when it is doing well, making a mass of surface-feeding fibrous roots. I made a Raspberry plantation in the autumn of 1902, and my experience may serve as a warning to some others. I got them in early and mulched them, cutting down the canes in March to about 9 inches in length. I was expecting good strong suckers to come up from the ground for next year's fruiting, and, after waiting a long time, I removed the mulch around some and found that the slugs had devoured some of the young shoots entirely, whilst others were being nibbled as fast as they grew. The mulch had served as a harbour for the slugs, which were very destructive after the wet summer of 1902, which was followed by an almost total absence of sharp frost in the winter. The result of my giving the slugs this protection was that of some three dozen canes put in only four or five have made good fruiting canes for next year, another eight or ten have just a feeble growth and are probably worthless, while the remainder are quite dead. *Experientia docet*. Slugs are more plentiful than ever this year, and the cold summer may be followed, as used to be the tradition, by a very sharp winter. When I plant the new canes I shall mulch them as before; but as soon as March comes the mulching will be taken away and buried in some deep trench, slugs and all, while some soot will be sprinkled round the canes to destroy any slugs remaining. A. PETTS.

NOTES FROM THE MARKETS.

COVENT GARDEN MARKET.

DECEMBER 22.—This was a very busy morning, there being a large trade in pot plants. Some complaints were made that cut bloom was not going so well as might be expected, but I found there was a general advance in prices. The supplies in all directions were good. Of pot plants Azaleas are now coming in, and are very good. Genistas were well flowered. A good supply of Begonia Gloire de Lorraine and Turnford Hall was seen. Hyacinths are hardly of first quality yet. Marguerites continue to be plentiful, also Chrysanthemums, but higher prices are now asked. Poinsettias were seen in abundance, and many of them were very good. The trade for Ferns and Palms appeared to be more brisk this morning, though the supply would exceed the demand considerably. Heaths were going out well. E. hyemalis is still very plentiful.

*Cut flowers*.—It would be difficult to give prices, but I found there was a general advance. *Lilium longiflorum*, which were quoted on Saturday at 6s., had gone up to 8s., and some salesmen were asking even more than this. Callas had also advanced at the same rate. Some very good English forced Lilac was seen. Eucharis, Tuberoses, Gardenias, Lily of the Valley, and Roses seemed plentiful, but there were very few Carnations after early morning. In Chrysanthemums the bronze, red, and yellow made higher prices than white, though the best quality whites were selling well. There were

plenty of Violets. Altogether the market was well supplied, and trade seemed likely to be very brisk. A. HEMSLEY.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACACIA LINIFOLIA, A. platyptera, A. suaveolens, Chrysanthemum decaisneanum var. setumense, C. marginatum, Hibbertia dentata, and H. perfoliata.

Orchid Houses.

Erides Roebelenii, Angræcum pellucidum, Bulbophyllum auricomum, B. Pechei, B. strongylanthum, Calanthe microglossa, Catasetum splendens, C. tridentatum, Epidendrum chioneum, E. elegans, E. ramosum, E. Wallisii, Lælia albida, L. autumnalis, Listrostachys humata, Masdevallia melanopus, M. tovarensis, Maxillaria punctata, Odontoglossum maculatum var. downianum, Oncidium ornithorhynchum, O. varicosum, Platyclinis cucumerina, P. rufa, Pleurothallis pachyglossa, Restrepia striata, and Sarcanthus secundus.

T Range.

Aphelandra nitens, Barleria flava, Eranthemum tuberculatum, Ipomœa Maboni, Jacobinia chryso-stephana, J. ghiesbreghtiana, Jasminum gracillimum, Lachenalia pendula, Lindenbergia gaadiflora, Plectranthus crassus, P. chiradzulensis, Tillandsia Lindenii, and Vellozia equisetoides var. trichophylla.

Greenhouse.

Carnations in variety, Chrysanthemums, Epacris and Ericas in variety, Geraniums, Lily of the Valley, Narcissus (Paper White), Roman Hyacinths, Tulips, Peristrophe speciosa, Senecio grandifolius, and many other things.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

A CHRISTMAS GATHERING OF FLOWERS FROM DEVONSHIRE.

Mr. S. W. Fitzherbert sends for our table the following flowers from the open garden:—

Jasminum nudiflorum	Agathaea celestis
Pentstemons	Scented-leaved Pelargoniums
Scabiosa caucasica	Rose Marie Van Houtte
Pittosporum Tobira (very sweet)	Calceolaria Burbidgei
Cosmos bipinnatus	Lithospermum prostratum
Christmas Rose	Cyclamen Comi
Pink and White Valerian (Centranthus ruher)	Cytisus racemosus
Solanum jasminoides	Iris stylosa
Achillea umbellata	Zonal Pelargoniums
Campanula muralis (portenschlagiana) major	Mesembryanthemums in many colours
Chianthus puniceus	Erigeron micronatus
White Paris Daisy (Chrysanthemum frutescens)	Monthly Rose
Enothera Youngi	Habea suaveolens
Ivy-leaved Pelargonium (Mme. Crousse)	Eupatorium weinmannianum
Schizostylis coccinea	Winter Heliotrope (Tussilago fragrans)
Annual Antirrhinum	Polyantus Narcissus
Convolvulus Cneorum	Shrubby Veronicas
	Escallonia montevidensis

ST. BRIGID ANEMONES AT CHRISTMAS.

Messrs. Gilbert and Son, Anemone Nurseries, Dyke Bourne, sent a boxful of their beautiful St. Brigid Anemones with foliage, all gathered from the open ground. We have recently described the warm and varied colourings of the flowers, and

our correspondents write that the Anemone beds "look as though it were April, rather than December."

#### LATE CHRYSANTHEMUMS.

Mr. George Ellwood sends from the Swanmore Park Gardens, Bishops Waltham, a few flowers of the principal late-flowering varieties to show their great value at this season. Their names are familiar, but those who do not know the varieties should make their acquaintance if a wealth of graceful flowers is desired in midwinter. Mrs. W. A. Weeks, Princess Victoria, King of the Plumes, Pink Princess Victoria, L. Canning, Annie Heard, Duchess of Edinburgh, Golden Princess Victoria, and The Queen. Also Persian Cyclamen flowers representing an excellent strain. Mr. Ellwood recommends slitting the stem in an upward direction to keep the flowers fresh as long as possible.

## OBITUARY.

### THOMAS W. WEATHERED.

THOMAS W. WEATHERED, who died December 4, was born in Stockport, Cheshire, England, on August 3, 1819. He came to the United States in 1840 and took a position as superintendent for R. H. Hoe, Esq., in New York City. In 1849 he associated himself with Anthony Hitchings in the business of greenhouse heating in Crosby Street. In 1859 he formed a partnership with E. Cherevoy, and the Weathered and Cherevoy hot water boilers soon took a high place in the esteem of greenhouse men. Mr. Cherevoy died in 1870, and Mr. Weathered continued the business until 1888, when he retired, leaving it to be conducted by his sons. Mr. Weathered was a great traveller. He went to California gold hunting with the famous "49ers," and it has been his custom annually up to the present year to make a pilgrimage to his old home in England. In business affairs he was the soul of honour and uprightness. Socially he was cheery and companionable and his disposition was kindly and considerate. Of a large family of children two sons and one daughter survive, the elder son being C. B. Weathered, the treasurer of the New York Florists' Club.—*American Florist.*

### MME. EDOUARD ANDRÉ.

We much regret to learn that Mme. André, wife of M. Edouard André, the widely known French horticulturist, died suddenly in Paris early in December. M. André will have the sympathy of his numerous English friends.

### JOHANN OBRIST.

A LARGE train of sympathising followers attended the burial of Herr Johann Obrist, head gardener of the Royal Botanical Gardens at Munich, medallist of the Order of Merit of the Bavarian Crown, whose mortal remains were laid to rest on December 19. After the burial service, Professor Dr. K. Göbel, Director of the Royal Botanical Gardens, gave an address, and in the name of all the officials and employes of the botanical gardens deposited a beautiful wreath at the grave. Professor Göbel pointed out how much the institution had been indebted to this thoroughly competent official, whose death had taken away all too early from the arduous duties (Obrist was only forty-nine years old) to which he had always attended with rare energy. From early youth, Professor Göbel continued, Obrist had been an enthusiastic admirer of the alpine flora, and had in this sphere gained a most extensive knowledge and an amount of experience, both of which many a learned scientist might well have envied him. His pet child was the Alpine garden, which was established a few years ago on Mount "Schachen" in the Wettersteiner range of the Bavarian highlands, and which he knew how to tend with the greatest care and self-sacrifice. As a token of recognition for the valuable services rendered there, for which it would be most

difficult to find an official substitute, the speaker was commissioned to lay down a wreath in the name of the "Society for the Protection and Care of the Alpine Flora." Among the other numerous floral tokens of sympathy was also a wreath from the Bavarian Horticultural Society of Munich, of which the deceased was a member. Herr Obrist in his younger days had the advantage of having served for eight years partly at Innsbruck and partly at Vienna under that celebrated botanist Professor V. Kerner, by whose directions he spent three summers on Mount Blaser, near Innsbruck, at a height of 7,000 feet, in a hut expressly constructed for the purpose. There he experienced many an adventure and gained information which came useful to him in his practical work in after life. His name is well known as a collector of alpine plants, and also as a fellow worker in that laborious and excellent publication "Max Kolb, Die europäischen und überseeischen Alpenpflanzen. Stuttgart, Eupen Ulmer, 1890."

### J. H. FITT.

It is with much regret that we have to record the decease, after a long and painful illness, of Mr. J. H. Fitt, at Welwyn, Herts, at the age of seventy-three, he having been born at the same place on November 1, 1830. For no less than fifty-four years he had charge of the Frythe Gardens at Welwyn, after commencing his career as a gardener at Stagenoe Park, whence he went to Bayford Bury, Hertford, to the famous gardens of Mr. Baker, subsequently serving under Messrs. Paul, of Cheshunt, up to the time of his long engagement at the Frythe. For some years, until his illness incapacitated him, he formed one of the Royal Horticultural Society's floral committee, where his kindly face will be much missed. Combined with a thorough knowledge of horticulture in all its branches, was a special acquaintance with our native Ferns, of which he had a large and choice collection, and in this particular cult he will be equally missed by a host of sympathetic friends.

## SOCIETIES.

### CROYDON HORTICULTURAL SOCIETY.

THE last of the series of lectures arranged for 1903 was given at the society's rooms, Sunflower Temperance Hotel, on the 15th ult., when, before a good attendance of members, Mr. J. Gregory of Croydon, in a very descriptive and interesting manner, delivered a lecture on "Some Gardens I have Visited," illustrating it with lantern slides, prepared by him from photographs taken by himself from time to time during his long career in the horticultural world, and truly many of them reflected great credit on his endeavours as a photographer and slide maker. Mr. Gregory was one of the chief promoters of this society, and his energies, displayed at all times for the well-being of this excellent institution, are widely known. He started with a few notable features found in gardens in the immediate neighbourhood of Croydon, some of them dating back years ago, before the builders' hands had split them up, and those which now stand out prominently in this town, and are recognised to be types of beauty. Following on with ample illustrations, he showed the grandness of those beautiful gardens found in and around London, such as Holland House, Gunnersbury, &c., afterwards extending to the more distant radius of Friar Park, Henley-on-Thames, where everything that man's hands can do in assisting Nature is exemplified. Many parts of Northamptonshire, such as the ancient Holmby House, made memorable by history of the Cromwellian period, were dwelt upon. Several views of this historical residence, also of Hazelbeach Hall, where, latterly, the lecturer was head gardener, were much appreciated, especially those depicting the stately trees with branches weighed down by a heavy fall of snow that occurred in May, 1891, and he remarked how the photographs were taken at four o'clock in the morning. For an hour and a half he entertained his audience with a pleasant discourse, which called forth warm and hearty applause at its conclusion. The thanks of the meeting were also conveyed to Mr. J. H. Baldoek of Croydon, who on this and several previous occasions has kindly placed his services, with the lantern, at the disposal of the society.

### READING AND DISTRICT ROSE SOCIETY.

THE first annual meeting of this society was held in the Mayor's parlour of the Town Hall on the 12th ult., Mrs. Benyon, Englefield House, Reading (the president of the society), occupying the chair, and there was a good attendance of members. Mr. W. L. Walker, the hon. secretary and treasurer, presented a satisfactory report and balance sheet, the latter showing an amount of £11 to be carried over to next year's credit. Mrs. Benyon was unanimously

re-elected as president, and Mr. W. L. Walker as hon. secretary and treasurer, and the committee appointed is a strong one from the rosarian's point of view. Mr. J. T. Strange, Aldermaston, Reading, is a well-known rosarian, and among those having seats on the committee are such successful cultivators and exhibitors of the Rose as the Revs. F. Page-Roberts, Allan Cheales, and C. S. Turner, with Messrs. R. C. Mount, Rigz, Dunlop, and Ashby. The date of the show in 1904 was fixed for July 13, to take place in the Abbey Ruins, Reading, which is the spot where the southern section of the National Rose Society held such a successful exhibition in 1896. It may be of interest to many to know that this portion of the ruins was formerly the banquetting hall of the monks of Reading Abbey, and it constitutes a unique site for an exhibition of this character.

### SHERBORNE GARDENERS' SOCIETY.

THE monthly meeting was held recently at St. John's Hall, under the presidency of Mr. John Dean. Mr. James Crook, of Forde Abbey, near Chard, gave a highly interesting and instructive paper on "The Progress of Horticulture." Mr. Crook also drew attention to the advantages of joining the Royal Benevolent Institution for the Relief of Aged and Distressed Gardeners, and to the Society for Assisting Gardeners' Orphans. The matter was discussed, and it was decided that the committee should go into the question, and lay full particulars before the next meeting. A hearty vote of thanks was passed to Mr. Crook for his paper, on the motion of Mr. Lane.

### IPSWICH GARDENERS' SOCIETY.

ON Thursday, the 17th ult., Mr. Richard Dean, V.M.H., read a paper, prepared by request, before the members of the above society on "The Carnation: Its History, Types, and Culture." Mr. E. Notcutt, the president, occupying the chair, the company being large. The leading points of its history were briefly touched upon; its development was dealt with more largely. Mr. Dean said that in reference to what is known as the florist's Carnation there are two distinct types of flower intimately related to each other, for they are simply two forms of the same subject—the Carnation and the Picotee, the former of which is placed by the florist into distinct divisions, viz., bizarres and flakes. In the estimation of the florist the bizarre stands higher than the flaked flower. The bizarre Carnations are placed under three classes: The scarlet bizarre, the most important, the petals flaked with scarlet and maroon on a white ground; the crimson bizarre, with crimson and rose; and the pink and purple bizarre, having purple and pink, also on a white ground. The flaked Carnations are also in three classes: The purple flake, each white petal being flaked with purple; the scarlet flake, with markings of this colour; and the rose flake, similarly marked. When exhibited a flower of any one of the foregoing classes loses in value on the exhibition stage when a petal is wholly white or coloured, and in the case of the bizarre when one colour only is present on the white ground. No two petals on one flower are altogether alike; this diversity of marking is one of the charms of the Carnation. The edged Picotees represent a winsome division, as there is something so soft, tender, and fair about them that they might be regarded as the feminine of the more masculine Carnation. The edged Picotees are grouped into four classes, viz., the red edged, the purple edged, the rose edged, and the scarlet edged, and these are further divided into heavy edges, medium edges, and light edges. The self-coloured flowers are a large and brilliant class, ranging from white to almost black. The fancies contain everything that is outside the class flowers, excepting those which are self-coloured. They may be of white or creamy grounds, or of any colour or colours on a coloured ground, but must lay claim to form, substance, and colour. "Run" flowers may be either self-coloured or go into the fancy division. They are blooms on which the white ground colour is partly or wholly suffused with some other tint. The yellow grounds, now so popular, were described, and also the new race of yellow Picotees derived from them of late years. A great deal of interest was shown in the coloured illustration of the yellow Picotee which appears in Thomas Hogg's "Treatise on the Carnation" (1824), and it was handed round for inspection. The tree or winter-flowering varieties were described, and also the spring and summer-flowering Malmaisons, now so popular, and which has received accessions of so many new varieties during recent years raised by Mr. M. K. Smith. The annual Marguerite type was also passed in review.

In dealing with the culture of the Carnation the lecturer spoke in high terms of it as a town flower, thriving under conditions amid which other plants failed; it does not mind smoke, as has been abundantly proved. The harder cultivation of the flower was warmly advocated, the bed prepared according to the directions given, and autumn planting of the same advocated as plants placed in the open air in autumn were stronger and gave better results than those wintered in frames and planted out in the spring. The necessary cultural after-planting to the time of blooming was mentioned, and also the best means of propagation, remarking that it would be well if many gardeners would grow a few Carnations in pots for blooming under glass and so secure some specially fine blooms. The method of pot culture was given and many valuable hints thrown out. The special culture necessary in the case of winter-flowering varieties, and also of the Malmaison, was given in detail in reference to the latter, early layering was recommended that the plants may become sufficiently advanced by September to be planted in larger pots.

The raising of seedlings was also touched on and directions given, and certain pests, such as weevils, rabbits, grubs, green fly, &c., mentioned; also such diseases as gout and the spot, and remedies suggested. A reference to Carnation shows brought the lecture to a close. Many questions were asked, and on the motion of Mr. W. Messenger, of Wolvestone, a hearty vote of thanks was passed to the lecturer and also to the chairman.



# THE GARDEN

No. 1677.—Vol. LXV.]

[JANUARY 9, 1904.

## THE NATIONAL POTATO SOCIETY.

**T**HE national importance of the Potato as an article of food at once places a society formed for its improvement beyond such criticisms that might perhaps legitimately be urged against it were the special product which has called it into existence of lesser value, and for this reason we welcome the formation of a society whose objects are the improvement of the Potato, and the dissemination among growers of information concerning the best varieties and other points of importance. That the proposal to form this society was viewed with general favour by growers and others interested is evidenced by the attitude of the large gathering that assembled last week to hear the initiative proposals set forth. The chief of these are to establish trial stations in various parts of the country, where varieties of Potatoes may be grown and compared and their true value thus ascertained; to form a proper system of classification for the purposes of exhibition; to encourage shows because of their great educational value.

So much conflicting evidence is circulated with regard to the merits of varieties of Potatoes that the inexperienced grower is in a quandary, and the only method by which he can escape is to grow them, and thus profit by actual experience. But experience is a hard master, and it is to save disappointments and failures, and the loss of time these entail, that the Potato Society has been formed. The great value of the Potato to all classes of the community makes the huge losses that are caused by disease all the more deplorable, and the cry to-day is for a Potato which, while being of good quality, shall have such constitutional properties as to make it practically disease proof. Here again this society proposes to give assistance. At the suggested trial stations in different parts of the country, special note will be taken of those that resist disease the best, as well as of other properties, such as good quality, yield, &c. The need for a proper system of classification is painfully evident to those who visit horticultural shows; as Mr. W. P. Wright pointed out at the recent meeting, it is not unusual to see the same variety shown in a class for round and also in a class for kidney Potatoes. Whether these experimental stations, which it is proposed to establish, will be best carried on in connexion with the various County Councils

and under the supervision of their instructors, or whether, as was suggested, they shall be undertaken by the growers themselves, and periodically visited by inspectors sent from headquarters, may well be left in the hands of the committee. So that the trials may be absolutely independent it was resolved that members of the trade be not elected upon the committee. It was decided, however, to appoint a sub-committee of members of the trade to deal with purely trade questions.

We are glad that the national aspect of the question has not been lost sight of, for the Potato is much more important to the cottager than to the well-to-do householder. Bearing this in mind, it was agreed at the meeting held last week to have a minimum subscription of 2s. 6d., so as to encourage cottagers and allotment holders to become members, and so participate in the advantages that such a society may reasonably hope to bestow. The other side of this question is also worth referring to, cottagers and other small growers might in their turn be able to give most valuable information to the society concerning the behaviour of certain varieties under certain conditions. Altogether, we think the National Potato Society begins life under conditions that augur well for a useful and successful future. It cannot fail to enlist the sympathy of all who recognise the national importance and value of the Potato. Mr. W. P. Wright, who may be said to be the originator of the scheme, and may reasonably be supposed to know most about it, has been elected secretary of the society.

## RIVIERA NOTES.

**TWENTY** years ago or more *Uhdea bipinnatifida* was recommended as a fine foliage plant for the sub-tropical garden, which was then just in vogue. Its large and deeply lacinated leaves were rough in texture and perhaps a trifle coarse, so it never became popular. The plant, however, is of real beauty when fully developed, and I, for one, had no idea of its value and importance until I saw it in a friend's garden at Bordighera the other day. There I saw what at a distance might have been an immense *Dahlia imperialis* in full flower, and as the last days of December are too late for that stately plant to be still in flower I went close up to where it grew, rather under the shade and shelter of a big Palm, and by the leaf I was able to identify my old friend. But what a marvellous development of that rather coarse plant! It is the flower rather than the leaf that is the true beauty of the plant, and the

big branching sprays of its white Daisy flowers with white centres are the finest thing I have yet seen in a December garden. It is well worth a trial in England under glass, where there is plenty of head room, for nothing could be finer for bold decorations during the months of December, January, and February—the very time when a fine bold plant is needed to make a contrast to *Camellia* and other winter-flowering shrubs. Its hardiness is just that of the *Heliotrope*, but it needs little heat when in flower, judging by its behaviour on the Riviera, and I fancy it will be much more amenable to cultivation in England than its better known forerunner the *Tree Dahlia imperialis*.

**SALVIAS** live so badly when cut and in a warm room that it is rather a surprise to find *Salvia Bethelli* or *involucrata* will really last for days in water. Its pretty cherry-red bracts and pink flowers are a relief to many forced flowers, and its leaves are so handsome that it is quite as indispensable as *Eupatorium weinmanniana* or any other well-known decorative shrub that needs little attention beyond general good culture. Small plants, however, are not to be recommended.

**RED CLIMBING ROSES** are so scarce out of doors in January that Dr. Rouges and the newer *Noella Nabonnand* are much to be recommended. They open their buds so well in a low temperature, and respond so well to severe autumn pruning in this climate, that they deserve a place in every garden. Another good winter-blooming Rose is *Kaiserin Augusta Victoria*, whose blooms open so well, while the new and lovely *Souvenir de Pierre Notting* proves quite useless; its buds neither open nor colour properly unless under glass even in this climate. It is most difficult to prophesy the behaviour of any new Rose when grown for winter flower, and one greatly regrets that so beautiful a Rose will not give good winter flowers. On the other hand, that tender and lovely yellow Rose *George Schwartz* opens admirably, and in a few years must, I think, be a great favourite here.

**SAVING SHRUB SEEDS.**—How few gardeners take the trouble to save seeds of any shrub, and yet how many possibilities there are in a few seeds I realised the other day, when two seedling *Chimonanthus* from *C. grandiflorus* produced a few flowers for the first time. Neither is quite the same as the parent, and one is both far brighter in colour and larger in size than the finest form I have ever seen, while retaining all the fragrance of the type. If only it proves as free flowering, it will be quite an acquisition, and will tempt one to save seed for another experiment.

**IRIS TINGITANA** opened its first flower to the New Year. In this climate it is simply a question of water and manure if flowers are desired. It must have a good dry rest, but if rain does not fall in September it will not start until moisture reaches it, so that one can easily have a succession of blooming plants.

Iris Vartani is another delightful Iris, but of very small stature. Its sky blue falls and slender standards are prettier and earlier here than *I. reticulata*, which it closely resembles, except in colouring. How welcome these fresh spring flowers are even here, where autumn and spring join hands and dance in the bright sunshine!

Vice. E. H. WOODALL.

## THE EDITORS TABLE.

### WHITE SEEDLING CHRYSANTHEMUM FROM AUSTRALIA.

Mr. W. H. Cooke, Kingston Hall Gardens, Derby, sends blooms of a white seedling Chrysanthemum he has received from Australia. They are of good form, fairly large, pure white, and evidently last a long time. Mr. Cooke says that all who have seen this consider it to be a first-class decorative variety, and we can readily believe it. The plants had not been disbudded, yet the flowers were some 4 inches across. This variety is a Japanese incurve. In the words of an expert who saw it the other day, "it is a flower that should certainly not be lost sight of."

### CYPRIPEDIUM INSIGNE.

Mr. Mark Webster, Kelsey Park, Beckenham, sends flowers of this favourite Orchid with the following note. The flowers are a very fine form of *C. insigne* (synthetense): "For a number of years this deservedly popular winter-flowering plant has been grown with more than ordinary success at Homewood, the residence of W. M. Bullivant, Esq. Calling on Mr. Thomas Crosswell (the gardener) the other day, I was shown six plants in 9-inch pots filling one side of a house; the pots were on bricks, and were completely hidden by the foliage. Each specimen measured 3 feet through, and looked as if cast in a mould. The flowers were not supported, but hung round in a circumference of 12 feet. The plant I counted carried fifty-five single and three twin blooms. This season the twins are not so numerous as usual, eighteen having been carried on one plant at one time. These plants have not been potted for eight or nine years. Weak farmyard drainage, Clay's Fertiliser, soot-water, and guano are occasionally given. The roots grow over the rims of the pots in a perfect mat. Plants carrying nine large blooms in 4½-inch pots are grown for indoors and table decoration."

### BEAUTIFUL FORMS OF PRIMULA OBOCONICA.

Mr. Gumbleton sends from Belgrove, Queens-town, Ireland, fine forms of this *Primula* "raised from Erfurt seed received from Messrs. Haage and Schmidt. I think them good." The flowers are large and charmingly varied in colour, from almost white to warm rose, a very beautiful series of shades.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 16.—Société Française d'Horticulture de Londres Annual Dinner.

January 21.—Gardeners' Royal Benevolent Institution Annual General Meeting at the Covent Garden Hotel; Annual Supper, Covent Garden Hotel, Mr. Leonard Sutton in the chair.

January 26.—Royal Horticultural Society's Drill Hall Meeting.

### The history of the blue Primroses.

Some twenty-five years ago Mr. G. F. Wilson raised Scott Wilson, a Primrose much talked of and admired as a new break and forerunner of a new plum-coloured strain. About two years afterwards he kindly gave me a plant of it, and we both tried to raise real blue ones. Mr. Wilson went on selecting carefully and sowing, but, as far as I have heard or observed on my visits to Heatherbank, he did not try any other proceedings. I had obtained

from Ware's plants of the "Old English blue Polyanthus" a variety with flowers of a pale sky blue with a tinge of grey, and thought that by crossing this with Scott Wilson, not only blue Primroses, but also blue Polyanthuses might result. I at once tried the cross. I had remarkable success, for I obtained about 50 per cent. bright blue shades, and also a few Polyanthuses. My strain has improved year by year, and there are even new breaks to come. As to reversion I may state that in my experience offsprings of hybrids or crosses have a certain tendency to revert to the old forms, though this can be prevented to a large degree by constant selection of seed. Another fact is the change of colourings. A plant of a blue strain may produce crimson, violet, or plum colours, whilst the colour becomes much more of a blue shade in spring, the colouring being the effect of a changing temperature, thaw, and sunshine.—MAX LEICHTLIN, *Baden-Baden*.

**Dicentra chrysantha** (page 9).—My experience with this plant is that it is quite hardy, but short-lived. With me it has never lasted more than six or eight years. I have never been able to increase it by seeds, cuttings, or layers. I have now lost it, and should be glad to know where it can be got.—H. N. E., *Bitton*.

### THE LAVENDER OF LIFE.

The world goes all too fast, my love;  
I am tired of the restless race,  
And my heart has gone back to the Roses  
In a quiet garden place—  
To the moat and the mossy sundial,  
And the Yews, where the shadows wheel,  
To the love at the lattice window  
And the song at the spinning-wheel.

The world goes all too fast, my love,  
With its dance and revel and wine;  
And my heart has gone back to the Holly-walk  
And an Oak-framed love of mine—  
Gone back, gone back for a hundred years,  
From a world of greed and strife,  
To the harp and the brodered tapestry  
And the lavender of life.

W. H. OGILVIE, in *Country Life*.

**Jacobinia chrysocephala**.—Introduced from Mexico and put into commerce over thirty years ago, this delightful winter-flowering plant after a time almost dropped out of cultivation; but within the last three or four years there has been a great revival in the matter, and it is now generally met with. This is as it should be, for the plant in question is of easy propagation and culture, and it lasts a long time in bloom, added to which the rich golden orange hue of the blossoms is remarkably effective during the half-light too often experienced throughout its period of flowering. The best coloured flowers are those developed in a clear atmosphere; and those shown on Tuesday last by Messrs. Veitch, which were grown at their Feltham nursery, were particularly well developed. This plant was first distributed under the generic name of *Cyrtanthera*, then it became a *Justicia*; but now it is settled to be a *Jacobinia*. In the same genus are now included two plants, at one time even more popular than they are now, viz., *J. ghiesbreghtiana*, known in olden days as *Sericographis ghiesbreghtiana*, which produces a quantity of scarlet tubular-shaped flowers at this season of the year, and *J. pauciflora*, which will be comparatively unknown, but as *Libonia floribunda* is generally grown and justly valued for its winter blooming qualities.

**The National Potato Society**.—No longer is this society a suggestion—it is in existence, a living reality. True, its condition is far from being a finished one; indeed, it is yet something of a framework which has to be clothed with solid flesh, but the formation and creation of even a Potato society cannot be done in a day. It has a temporary and excellent chairman in the person of Mr. A. D. Hall, the chief of the Berkhamstead Experimental Farm, with Mr. G. Gordon for vice-chairman, and Mr. W. P. Wright as secretary. A large committee has also been formed, including many of those who are engaged in the work of horticultural instruction in the counties. Subscriptions are of a moderate nature, as the minimum is as low as 2s. 6d. With such a basis there should be no difficulty in collecting, in many hundreds, members from out of the Potato growers, large and

small. What will constitute the special work of the new society has yet to be largely determined. It is for the committee elected for the present year only to determine that and to put things into shape. When it is remembered that we have no garden product, and but one other field product which has for us such importance as the Potato, there should be no difficulty in finding not only a wide field for operations, but also means for their conduct, so that a very important impression be made on Britain's Potato crops and supply, and a great food product be enormously increased. At the present moment our home produce is a very limited one, and we are greatly dependent now on foreign supplies. It is folly to decry these useful importations; they represent a valuable food supply. Largely the present deficiency is due to a most unfortunate season, one that has proved to be singularly adverse to Potatoes, and which we may well hope we shall not have repeated. It is to this shortness of crops of the past year that we owe the efforts which it is feared may have been too successful to boom one or two new varieties of Potatoes in a way that has surpassed all previous experience. These varieties have been described as marvels, and prices paid for them astounding. This sort of eulogy has doubtless trapped many rather credulous persons into purchasing them at costs that never can be remunerative. One of the aims of the new society doubtless will be to establish trial or testing plots in diverse parts of the kingdom, where new and good old varieties would be grown side by side for comparison in so many diverse soils and positions, and thus secure for the public guidance judgments as to any variety's merits that would be reliable and the reverse of misleading. It is not enough that trials of this nature should be for such object only. It would be well to ascertain also what varieties do best in certain soils and situations, how far particular soils affected starch production and flavour, how far also soil or position affected disease affinity or resistance; and especially could admirable tests be obtained as to the effects of change of seed tubers from one description of soil to another as compared with similar varieties unchanged. Results could also be obtained as to the effects of diverse methods of wintering seed tubers on crop production. Exhibitions of Potatoes would, of course, form a feature of the society's operations, as also some sort of classification of varieties. All this, of course, would necessitate considerable outlay, and it is hoped that some county councils will be induced to co-operate with the society in providing trial plots and labour through their able gardening instructors. The Board of Agriculture, the Royal Agricultural and the Royal Horticultural Societies it is hoped will also render valuable assistance.—A. D.

**Aberdean Chrysanthemum Society**.—The annual exhibition will take place in the music hall, November 18 and 19 next.—M. H. SINCLAIR, *Secretary and Treasurer*.

**North of Scotland Root, Vegetable, and Fruit Association**.—The annual meeting of this association was held at Inverary, on the 26th ult., and was presided over by Councillor Low. The secretary's statement showed the satisfactory balance of £32 4s. 3d. to the credit of the association. After some discussion, it was agreed to have a two days show on the first Friday and Saturday of November, 1904. The schedule of classes was revised, and several additions made to an already valuable and satisfactory series of prizes.

**"My Garden Diary"**.—This familiar booklet, issued by Messrs. Sutton and Sons, is a valuable garden companion, tastefully produced. It is full of useful gardening reminders for each month of the year, and there are spaces for memoranda. At the end there are "Notes on Bulbs," "Notes on Lilies," and "Secrets of Success with Flower Seeds," all of which are filled with information of value to everyone who gardens. The lists of "Bedding Annuals," arranged as tall, medium, and dwarf; "Climbing Annuals," "Everlasting Flowers," and "Edging Plants from Seed" will also be found most useful. Some remarks upon how to destroy certain garden pests conclude "My Garden Diary."



**Addition to the Glasgow public parks.**—At the last meeting of the Glasgow Town Council a recommendation by the parks' committee that the lands of Ibroxhill, adjoining the Bellahouston Park, he purchased was considered, along with a proposal that a portion of Bellahouston Park should be fenced. After some discussion the recommendations of the committee were agreed to by a large majority. Ibroxhill will be a valuable acquisition and will add much to the amenity of Bellahouston Park, while the portion of the latter it is proposed to feu can be disposed of in this way without seriously affecting the value of the grounds. The cost of the Ibroxhill lands will be almost defrayed by the sale of these feus.

**Trials at Wisley.**—An explanation as to the difference between the mention of trials at Wisley and the facts in relation as stated, is that the announcement in the Journal was printed some time prior to the issue of the number, and at that time it was fully believed that the trials would take place. Since then it has been found that owing to so much of the field ground being in so foul a condition it will not be possible to get it into a state fit for trials so soon as next spring. There can be no doubt but that great as is the gift of the garden, the Royal Horticultural Society finds it to be a horse that has to be looked hard in the mouth, and the more it is examined the greater the need for labour and expenditure. It is much to be deplored that the customary trials should fall through for a year. It may well be thought that at least a couple of acres could have been thoroughly cleared and got ready for trials; but doing so seems to have been beyond the capacity of even the Royal Horticultural Society.—A. D.

**Broughty Ferry Horticultural Association.**—The course of lectures arranged by the Broughty Ferry Horticultural Society, in combination with the County Technical Education Committee, continues to be much appreciated by those interested, and there was a good attendance at the eighth lecture of the course, which was held in the Grove Academy on the 16th ult. Mr. W. G. Anderson occupied the chair. The lecturer for the evening was Mr. A. D. Richardson, landscape gardener and consulting forester, Edinburgh, and formerly at the Royal Botanic Gardens there. He took for his subject that of "Continental Forestry," one upon which Mr. Richardson is well qualified to speak from his own experience and observation. Mr. Richardson dealt fully with it, pointing out the systems adopted and their advantages and shortcomings in a lucid manner. A capital series of lime-light illustrations added much to the interest of one of the best lectures of the course. A good discussion followed, and the lecturer was heartily thanked for his services.—S.

**Hybrid Gesneras.**—During the last few years a great improvement has been obtained by hybridisers of these plants. The colours are more numerous and distinct, and the plant has bold, pyramidal spikes of bloom often reaching 18 inches in length. The foliage alone is very handsome, being beautifully marbled in various shades. The value of these plants for indoor decoration alone should certainly give them a wider popularity, for scarcely any flowering plant stands longer under such conditions. The flowering season can be extended over a long period, when a good number of tubers are in hand, by potting up successive batches from the middle of January to April, the latter potting lasting well into November. The compost for tubers should be composed of equal portions of fibrous loam, lumpy peat, and coarse leaf-soil, with sufficient sand added to make the whole porous. The tubers start more satisfactorily by being dibbled thickly in boxes of leaf-soil and sand, placing them in a moist and warm temperature not less than 60°. When an inch or so of growth is made they should be carefully potted up in the above compost, placing five plants in a 6-inch pot. Be sure and warm the soil nicely when potting takes place to avoid chills, return the pots to the same temperature, and take care to shade them from bright sun. They will not need much water till fairly established, when copious supplies must be given. An occasional application of farmyard

manure water, diluted, is beneficial from this stage till the flower-spikes are fully developed. When the flowers begin to open keep the atmosphere drier or remove the plants to the conservatory. When ordering seed procure it from the best possible source, and so avoid disappointment when the flowering time arrives. In January or early February the seed should be sown in pans of rich light sandy soil, barely covering the seed with the fine particles; place the pans in a moist, warm temperature. Sheets of glass or paper should be placed over the pans to prevent evaporation, for nothing is more harmful to seedlings of any kind than variable conditions of the soil. When the seedlings are large enough to handle, transfer them carefully with a pointed stick into pans filled with similar compost. Repeat this operation as the young plants require it, for it will be found they will vary greatly in size. After each operation always bear in mind to fill up with soil where the young plants were taken from. Place them in the same quarters, carefully watering and shading. As they advance in growth treat them the same as advised for old tubers, but use smaller pots; 3-inch will generally be found large enough. Grow them rapidly on to form full-sized tubers by autumn, when they must be gradually ripened off and stored away in the pots in a temperature not lower than 45° nor above 50° for their rest. Should a scarce variety appear, leaves taken off with a bud at the base would increase the stock quickly, inserting them in sand under hand-lights plunged in bottom-heat.—G. ELLWOOD, *Swanmore Gardens*.

**Calanthes at Woolton Wood.**—The Calanthes, so well grown at this establishment, are now shown to advantage in a large span-roofed structure; the sorts are *Calanthe Veitchii*, *vestita oculata*, and *v. rubra*. There are nearly 100 pots with upwards of 400 spikes, many over 4 feet in length, and in addition there are a few own-raised seedlings, which have a distinct colouring in the lip. The pots are arranged thinly with Ferns and other greenery as a base, the whole forming a charming display at this dull season. Another advantage is the length of season, which in this case covers a period of from October to early in February, and, in addition to being so beautiful as decorative plants, they can be utilised with charming effect for dinner table or general house decoration. *Calanthe Williamsii* promises to continue the succession by showing bold spikes that will follow later on. Mr. R. Todd is to be congratulated upon his successful culture of this useful winter-flowering plant. In addition to the Calanthes a large number of *Cypripediums* are now in bloom, including many raised in these gardens, showing considerable variety in colour, size, and form.

**Then and now.**—The various notes from Covent Garden Market which have of late appeared in THE GARDEN are of great interest to me, for some thirty years or more ago I was employed in a (at that time) prominent market establishment, and the subjects then grown were in numerous instances very different from those of to-day. The system of retarding has in many cases completely revolutionised some classes of plants—for instance, the Lily of the Valley, which we were for several seasons the earliest to take into the market. The system then adopted was to get good, well-ripened Berlin crowns, pot them eighteen in a 4½-inch pot, just leaving the points out of the soil, and plunge in a close propagating case in the stove with a bottom-heat of 80° to 85° and a moisture-laden top-heat of 75°. With all this we were considered fortunate to get a few in flower by the first or second week in December, but the main object was to get a good crop by Christmas, when high prices were realised. At that time 1s. a spike was the ordinary price about Christmas—that is, first hand. There were in those days no species of *Lilium* at this season, for all those now in the market are the product of retarded bulbs, and it was some ten years after that before we first got *Lilium Harrisii* from Bermuda, by which means we were enabled to get the long Trumpet Lilies early in the new year. The Arum Lilies (*Richardia*) then as now were very popular, and of other flowers *Camellias* were grown far more than they are at the present day. Very few zonal *Pelargoniums* were to be met

with at this season, the first to attain a considerable amount of popularity for winter blooming being the semi-double Wonderful, sent out about 1875. *Chrysanthemums* were few in number compared with to-day, while *Marguerites* and *Freesias* were almost unknown. *Epiphyllums*, whose flowers readily lent themselves for use in the formal pin-cushion-like bouquets then in vogue, were taken into the market in considerable numbers, and much the same may be said of the climbing *Tropaeolums*. One variety—Mrs. Treadwell—was very popular for the supply of cut flowers in midwinter, a position it held till ousted by the zonal *Pelargoniums*. Of foliage plants, the principal Ferns of those days were *Adiantum cuneatum*, *A. decorum*, *Pteris tremula*, and *P. serrulata*. *Pteris cretica* was at that time gaining in popularity, but the major variety was quite unknown to the market grower. Palms were at that time very little met with, far and away the most popular being *Latania borbonica*, for the now universally-grown *Kentias* were valued at guineas. Next to *Latania* perhaps came *Areca lutescens*, *Seaforthia elegans*, and *Corypha australis*. A very pretty plant, and a one-time universal favourite, is *Cyperus alternifolius*, but this is now very little grown to what it once was. In the days when small Palms were so scarce, *Curculigo recurvata* was often grown as a substitute; now, however, it is almost forgotten.—T.

## ON THE LAGO MAGGIORE.

THE Italian Lakes (Como, Ceresio, Maggiore), these three together, form a specially favoured region known scientifically as the insubric zone. Sheltered as it is from the northern blasts by the great wall of the Simplon and Gotthard Alps, and protected by their southern-facing slopes, these conditions of shelter and warm exposure are of themselves extremely favourable. But the main source of the rich flora and special character of the region is the enormous volume of heat that is given off by the deep waters of the lakes, and the almost entire absence of cloudy days. The lakes are of great depth, and it will be seen that from this immense mass of water an abundant supply of warmth is given off, the water of the lower depths constantly rising to cool on the surface and bringing with it an appreciable degree of warmth. To this is added soil of a special chemical composition, almost entirely wanting in lime, and we have the explanation of the phenomenon that produces a flowery oasis at the foot of the Alps, while further south, as at Milan, the climate is much colder and the vegetation of a more northerly character.

I have travelled about these lakes at all seasons, and from one year's end to another have never seen them without flowers. Rising one above another are the most wonderful gardens, and a luxuriant exotic vegetation is to be seen in all directions. The great Borromeo family were the founders of the gardens which were here established several centuries ago; they were the first planters of rare and beautiful trees and shrubs on the shores of the Lago Maggiore. The Borromeo Islands, which, with the adjacent shores, were the sites of the gardens of the lordly Milanese families, have furnished examples of a luxuriant wealth of gardening that all the world has desired to adopt and reproduce.

But to bring about all that the region has now to show there was need of the labours of specially intelligent and enterprising horticulturists, who should introduce and distribute suitable exotic plants. I believe that the superb vegetation that we now see on the shores of these enchanting lakes is largely due to the work of two generations of the Brothers Rovelli. I have just lately visited this firm's excellent and interesting horticultural estab-

lishment, now in the hands of the young *Docteur es Sciences*, Renato Rovelli, grandson of the original founder. A brief sketch of it may, I hope, interest readers of THE GARDEN.

The garden stands out upon a spur of land that juts out into the waters of the Lago Maggiore, forming a cape, the greater part of which belongs to it. The highest point is from 25 mètres to 30 mètres (nearly 100 feet) above the lower portion of the garden. It has become a delightful spot, shaded by magnificent Mexican and other Pines, and commanding a superb view of both shores of the lake.

The vegetation is quite Mediterranean, and to see the long-leaved, domed tops of the Eucalyptus swaying above groups of *Jubæa spectabilis* and *Acacia dealbata* one might be at Cannes or Mentone. The Japan Medlars (*Eriobotrya*) are self-sown, and young plants of it are to be seen on all sides. *Ficus repens* climbs about the walls, and the air is fragrant with the scent of *Olea fragrans*. Much taste has been shown in the laying out of the pleasure ground. Here are to be seen the strange but pleasing outlines of *Abies lasiocarpa* 30 feet high, *Pinus lambertiana* 45 feet, *Pinus winchesteriana*, *fremontiana*, *Koraiensis*, *daveana*, and *longifolia* from 20 feet to 50 feet in height. The curious dark-complexioned *Pinus insignis* finds itself a near neighbour of the *P. Cembra* of the high Alps. The strangely-sinuous *P. russeliana* spreads out its tortuous, serpent-like branches on all sides, in strong contrast to the stiff 60 feet high spire of *P. palustris*. *Pinus patula* spreads its great arms widely abroad near an *Abies Fortunei* 45 feet high, while a *Thuja gigantea* of 65 feet shows off by contrast the strange shape of a *Cupressus torulosa*, also a giant. *Sciadopitys*, *Torreya*s, various *Podocarpus*, American and Japanese Oaks—all are interesting and show great vigour. *Laurus glandulosa* and *L. camphorata* are 60 feet high. *Magnolias* are of great size, and *Pueraria* throws its great unctuous branches about on all sides. All these form delightful groupings of highly pictorial effect.

There are also several acres whose planting seems to consecrate them not only to botanical science, but to poetry and other fine arts, and it is with indescribable pleasure that I enjoy and admire them at each fresh visit. It would seem that the shades of a Ruskin or a Goethe must haunt the hidden recesses of this beautiful pleasure ground.

Rare species are in abundance. I will only name a few of their number: *Quercus Mirbeckii*, *Banisteri* and *dealbata*, *Juniperus squamata*, *Ilex depressa*, *Castanea japonica*, *Abies clambasiliana*, *Fitzroya patagonica*, *Illycium religiosum*, *Tristania nerifolia*, *Colletia biconensis*, a collection of *Grevillea*, and a number of *Ilex*.

The glaucous heads of *Acacia dealbata* rise above *Benthamias*; the delicate and beautiful *Pinus canariensis* and many kinds of rare Bamboos border the paths through the groves. The undergrowths are of bushes, such as *Lagerströmia indica*, *Olea fragrans*, *Thea viridis* and *sinensis*, *Camellia*, *Weigela*s 12 feet to 15 feet high, *Hypericum patulum* attaining a height of 9 feet to 10 feet, *Arbutus Andrachne* 35 feet, &c. In place of turf there is *Ophiopogon japonicus*, and in places the ground is covered with the Winter *Heliotrope* (*Nardosmia fragrans*), or by the Caucasian Borage (*Borago orientalis*).

Special grounds are reserved for a more prosaic class of cultivation, for stocks of *Camellia*, *Azalea*, *Chamærops*, *Ficus*, *Laurus*, *conifers*, &c.

The speciality of the garden as a nursery is the cultivation of the famous *Pseudo-larix*

*Kæmpferi*, the most capricious of known conifers, but which does well here at Pallanza.

M. Enrico Rovelli, the uncle of the actual proprietor of the garden, has established himself on the other side of Pallanza, where he has acquired a magnificent property. Here he grows specialties, such as Carnations, *Musa*, also flowers in general, conifers, &c. He is a skilful landscape gardener, and has planted delightful pleasure grounds.

The fine avenue of *Magnolia grandiflora* which borders the lake all along the length of the quay is the outcome of the generosity of the Rovelli family. From one year's end to another the blossoms scent the air, while their lustrous evergreen heads show out against the clear blue sky, and their dark trunks against the azure of the pure lake waters.

Happy land, beloved of the sun! land of flowers and sweetest perfumes. Would that one might dwell therein for ever!

*Floraire, Geneva.* HENRY CORREVON.

## THE FLOWER GARDEN.

### LILIUM JAPONICUM.

FEW Lilies have given rise to so many differences of opinion as *Lilium japonicum* of Thunberg, but it is now I see, according to the "Kew Hand List," identified as the Lily so long grown in gardens as *Lilium Krameri*. On this point I am not in a position to say a word, being without the ample reference at the disposal of the Kew authorities, but of the two varieties included under the head of *L. japonicum*, I quite fail to see their relationship to the Lily in question, except as far as they are all members of the same genus.

The first, *L. japonicum Alexandræ*, attracted considerable attention ten years ago, when it was awarded a first-class certificate by the Royal Horticultural Society, being shown by one of two exhibitors as *L. Alexandræ*, and by the other as *L. Ukeyuri*. It was at that time generally believed to be of hybrid origin. The probable parents suggested were *L. auratum* and *L. longiflorum*, and certainly the general appearance of this Lily would bear out such a theory, for neither in bulb, foliage, or flower does it bear the least resemblance to *L. Krameri*. I am aware that at the time it was first exhibited Mr. Baker ignored the supposed hybrid origin, but at all events it may have been a natural if not an artificial hybrid.

The second variety to mention is *L. japonicum Colchesteri*, of which *L. odorum* is one of the synonyms. This has really nothing whatever to do with *L. Krameri*, its nearest relative being *L. Brownii*, with which it was at one time often confounded, but from which it differs in the thinner leaves, shorter flowers, with the interior of a yellowish tinge, rather than the ivory white of *L. Brownii*. This last-named species is assigned specific rank, and its native country given as China and Japan, but concerning this there seems some doubt, as the origin of *L. Brownii* of gardens and as grown by the Dutch is wrapped in obscurity, and among bulbs imported either from China or Japan I have never flowered any that would be confounded with it.

The comparatively new *L. rubellum* is in the "Kew Hand List" classed as a true species. Why, it is impossible even to guess, taking as one's standpoint of species and varieties *L. japonicum* (*Kramerii*), with the so-called varieties *Alexandræ* and *Colchesteri*, for *rubellum* is in every respect closely allied to *L. Kramerii*, there being the same bulb, style of growth, and almost of flower, while both have a knack of disappearing after the first season. Great things were at first expected of *L. rubellum*, but it has proved little, if at all, more amenable to cultivation than *L. Kramerii*.

To try and clear up some of the confusion I have referred to Mr. Baker's paper on "New Lilies" read at the Chiswick conference in 1901, and find *L. japonicum Alexandræ* thus referred to: "Bulb

like that of *L. longiflorum*. . . . Differs from the type by its broader leaves and longer style, and, I would add, in almost every other respect.

The second variety of the "Kew Hand List," *Colchesteri*, Mr. Baker calls *L. Brownii odorum*, which, if *Brownii* be the species, is certainly its proper place, but this opens up another element of doubt, as *L. odorum* is supposed to have been introduced many years before the advent of *L. Brownii*, hence if priority of nomenclature counts for anything the species should be *L. odorum*, and the other a variety thereof.

In taking exception to *Alexandræ* and *Colchesteri* being regarded as varieties of *L. Kramerii*, I may perhaps be allowed to call attention to the fact that everyone now regards *L. sulphureum* as a grand Lily and a very distinct species, yet at first it was, to the surprise of all, named *L. wallichianum superbum*. It was only universal criticism that induced our botanical friends to give it the specific rank that it should have occupied from the first.

H. P.

### HARDY CRINUMS.

THE Crinums are an African genus of stately bulbous plants numbering about 100, but of these eight only can be grown in the open, and then the best of them need winter protection. They are robust plants of a gross-feeding type, ornamental in all the stages of their growth, and their flowers borne on tall scapes in the form of loose umbels are at once graceful and refined, and their colour tints vary from white to deep pink. With the exception of the old *C. capense* their use in gardens has been entirely overlooked, notwithstanding their acknowledged beauty, especially when grown in large clumps, and the fact that but little care is needed in their cultivation, save during winter, when with such plants as *C. Moorei*, *C. Schimperii*, and *C. yemense*, a covering of light, dry leaves is necessary to ward off excessive frosts.

The soil for Crinums should be light, deeply tilled, and well drained, and in most cases it is a wise plan to establish the bulbs in pots before planting in their permanent quarters, for it is necessary to bury the necks of the bulbs up to the leaf bases in order to protect them from cold, and dormant bulbs planted deeply generally start badly owing to the coldness of the soil at the planting season. Raised beds in the front of glass houses, at the foot of a south wall, or a warm, dry border suggest themselves as likely places to suit Crinums; but soils that are poor and hungry should be avoided. On the other hand, wet and naturally cold soils should be raised above the general level and sloped towards the sun, so that moisture cannot stagnate. Spring is the best planting season, and if the bulbs are turned out of pots they will grow away and flower well the first season. If planted as dormant bulbs their first flower-spikes are, as a rule, produced too late in the year for proper development, and thus a whole season is lost. The hardest plant of the lot is

*C. capense* (known also as *C. longifolium*).—It has long, glaucous, tapering leaves 2 feet to 3 feet long; cone-shaped bulbs with shortened necks, from the sides of which the flower-scapes arise in summer, reaching a height of 2 feet to 3 feet, and bearing long-tubed, pink-tinted flowers in umbels of six to ten, shaped like an attenuated funnel, and with arching tubes of a greenish tint. They are sweetly fragrant, but are somewhat sparingly produced until the plants develop into large clumps, when twenty to thirty scapes appear at the same time. The flowers are often 6 inches long and at least 3 inches across the petals, but as they are naturally drooping and do not expand fully they never give so fine a display as the hybrid *C. Powellii*. A pure white form is widely grown. This Crinum may be grown in any plant border without protection in most parts of Britain, but it reaches its finest stature in the southern counties.

*C. Moorei* (*C. makoyanum*) is the finest species than can be well grown in the open. It is not hardy, and protection will need to be thorough if it is left out all winter, or the bulbs must be buried quite a foot deep if they are to be considered safe. For general purposes it is better to lift the bulbs in

November and store them in a frost-proof building till planting season comes round again; the bulbs keep perfectly fresh if stored in sand or fibre. It has stout bulbs 1 foot to 2 feet long; broad, arching, deep green leaves, 4 feet to 6 feet long, and tall thickened flower-scapes, which vary in height from 3 feet in the open air to 6 feet when well grown under glass, and they bear from six to twelve rosy pink flowers with long arching tubes and broad

*C. Schimperii*.—A rare species, with shortened bulbs, erect-growing leaves arranged in two ranks, and long-tubed flowers, which resemble those of *C. capense album* in general outline. It grows well without protection in any warm border. The flowers are pure white, 9 inches long, in clusters of six during August. It is a pretty plant, quite unknown to general cultivation. The flowers are delightfully fragrant, especially at sunset. It hails

All the *Crinum*s are easily raised from seeds, but four years must elapse before the specimens can flower. Offsets are freely produced by those species that do not naturally rest; the others are less free in natural increase. M.

## THE ROCK GARDEN.

### ROCK GARDEN-MAKING.

XV.—ROCK-BUILDING WITH REGARD TO THE PLANTS TO BE GROWN.

**I** WILL deal briefly with another most important subject, namely, the construction of rocks with regard to the plants that are to adorn them. It cannot be denied that, however effectively the rocks may be arranged, their beauty can easily be marred or enhanced by the subsequent position of the plants. It is for this reason that "masonry" rock gardens are always a failure. Whoever designs and arranges the rocks is the proper person to direct the planting also. More than this, even during the construction of the various rock-beds, &c., which compose the rock garden, it is absolutely necessary for the designer to have a clear idea of what kinds of plants will give the best effects for the various parts of the work. I have pointed out in a previous chapter that in rock-building much effect can naturally be produced by way of contrast. A projection adjoining a deep recess will emphasise the latter, for the same reason as a high point will be emphasised by an adjoining depression. But supposing after completion of the work the planting is entrusted to unskilled hands and without regard to artistic effect, the probability would be that the recesses and depressions alike would be filled up with plants that grow to a considerable size, and small plants would be used for high points and projections; in other words, the bold effect originally intended would be utterly ruined by a mode of planting which has decreased instead of increased the intended contrast. As a rough kind of guide (liable to exceptions) it may, therefore, be suggested that tall or vigorous-growing plants should adorn the highest and most prominent parts of the rock garden, while the



NO. 1.—THE WRONG WAY OF PLANTING ALPINE PLANTS.

N.B.—The roots are able to spread too close to the surface, and would be quickly affected by too much drought or too much moisture.

petals, which expand fully, so that the flowers measure 6 inches across. Very large bulbs bear three or four scapes at the same time, and such specimens are not difficult to obtain or to grow. Under greenhouse treatment *C. Moorei* flowers at various seasons, both when in full growth and when dormant, but in the open it flowers in August and September, when growth is at its height. It is one of the finest bulbous plants I know.

*Var. album* (syn. Schmidtii) is a lovely white flowered form, quite as vigorous and easy to grow as the type plant. Both these *Crinum*s require abundance of water when in full growth, and they appreciate the assistance of liquid or artificial manure when about to flower.

*C. Powellii*, a very hardy hybrid between *C. Moorei* and *C. longifolium* (capense), is an invaluable border plant, growing and flowering very freely, and forming huge clumps bearing dozens of flower-scapes in the course of a few seasons' vigorous growth. It resembles *C. Moorei*, but the leaves are narrower, more channelled, and ascending. The flower-scapes average 3 feet to 4 feet in length, and are thrust a foot above the ample leafage, bearing a fine umbel of rich rose flowers with long, tapering, arching tubes, and broad, funnel-shaped limbs 5 inches across. They are pleasingly fragrant, and last long in good order. Strong clumps often bear a succession of spikes, and I have gathered good flowers within a few weeks of Christmas from plants in the open. There are two seedling forms, *album*, a beautiful long-tubed, pure white variety, and a pale pink form known as *intermedia* and *rubrum*, of very soft and refined colouring. These *Crinum*s require a warm situation and a deep soil of good tilth, and they are better able to establish themselves thoroughly if planted in spring. They may require protection in abnormally severe winters, but generally they are able to survive mild winters without any covering whatever. In any case where covering is used it should be removed immediately it is not required or the woolly tunics of the bulbs will decay through want of air, and a layer of sound tissue often decays with it. One can recommend *C. Powellii* and its forms as garden plants of more than ordinary interest, bright and showy to a marked degree; the flowers are fragrant, refined, and shapely, appearing at their best towering in graceful umbels above their own lustrous leafage.

when in vigorous growth. I do not know the plant's origin, and it appears to be a hybrid.

*C. yemense*, a plant of recent introduction, is a real gain. It has globose deciduous bulbs, leaves that resemble those of *C. Powellii*, but shorter, and it bears in midsummer clusters of pure white flowers, the tubes of which are curved, and the petals broad and spreading. The plants do not appear to produce more than one scape annually, but that is always strong, and the umbel contains twelve to twenty flowers, reaching a span of 18 inches when fully developed. Its short bulbs and deciduous character render protection easy, and a layer of light dry leaves shaken over the bulbs when frost approaches will be sufficient protection. As a pot plant this *Crinum* is invaluable. It is not so bulky as some, and the grand inflorescence of beautiful flowers reminds one of the *Yuccas* in their effective display. It is considered to be a form of *C. latifolium*, a tender but very beautiful species that one often recognises in collections of rare and choice plants. One hears much of a beautiful series of hybrid *Crinum*s raised in South European nurseries that are described as very hardy and embracing some newer shades. If they are as varied in colouring as one is led to understand, and they are likely to prove as hardy as those we have already, there is room for them in the more sheltered corners of English gardens. *Crinum*s are known to intercross more readily in warmer climates than our own, and many tender species could be used by the hybridist that would be difficult to manage here as pot-grown specimens.



NO. 2.—THE RIGHT WAY OF PLANTING ALPINES.

N.B.—The roots cannot spread close to the surface, but are compelled to go down to a considerable depth, where the soil is cool and moist.

lowest and receding parts should be furnished with plants only a few inches in height, which, by forming a carpet between the higher rocks, would emphasise the bold effect; while for the boldest parts of the rock garden bold plants and even rock shrubs might be most suitable. There would be no class of plants so well adapted for the lowest parts of the work as alpine plants.

## THE REQUIREMENTS OF ALPINE PLANTS.

By alpine plants in the general sense of the word are meant dwarf mountain plants from various parts of the world. While the majority of them, perhaps, have their native home in the Alps of Southern Europe, others of equal beauty and of equally easy culture have found their way to the British Isles from the Himalayas, from China and Japan, and even from the Rocky Mountains and other portions of America.

Before considering the best ways and means of cultivating these plants in our rock gardens, we shall do well to study them in their native home, say, for choice, in the Alps of Switzerland. Who among the travellers in that charming country has not been struck by the abundance of alpine flowers and their glorious colours? Who has not admired the dense cushions of stunted foliage bedecked, as with jewels, by exquisite flowers in the greatest profusion, and often in places where growth of any kind would seem almost impossible owing to scarcity of soil and intense cold. But alpine plants differ from most other plants, and in the course of ages they have adapted themselves to the peculiar circumstances of their surroundings. In high altitudes they have to withstand a broiling sun, while their roots are down ever so far in narrow chinks and fissures, where the scanty food they find would be cool and moist. Even during the height of summer their foliage is frozen stark and stiff every night, and what little growth takes place has to be accomplished during a few hours at mid-day. The expansion and contraction of the cells of such plants during day and night must be enormous, and enough to tear the tissues of ordinary plants. But these sturdy mountain gems are specially constructed to meet all emergencies; their cells are small and their cell-walls are abnormally thick. This accounts for the toughness of the tissues. For six or eight months during the year they are covered by soft, downy snow, and when in spring the balmy southerly winds known as the "Föhn" melt and disperse the snow, the alpine flora awakes from its winter rest as if by magic. In an incredibly short space of time all is life and beauty, till in October the downy snow again provides a protecting covering for the tiny gems.

Such is the life of alpine plants at home. They enjoy an abundance of the purest possible light, and though they may be short in stature, their roots, in order to find the nourishment required, have been compelled to penetrate deeply into the narrow crevices of the rock, and it is not at all unusual to find that plants only 1 inch or 2 inches in height send their roots to a depth of several feet.

## CULTURE OF ALPINE PLANTS.

In order to apply the lessons we are taught by Nature with regard to alpine plants, I have sought to further illustrate my meaning by means of the accompanying sketches bearing on the planting of alpine plants in the rock garden. Diagram No. 1 shows the wrong way of planting. In this sketch it is assumed that the plant has been put in like an ordinary bedding plant (as is so often done) between upright stones some distance apart. Now what must be the consequence of such planting? The stones would exclude light and air, which are so essential to the well-being of the plant; but, worst of all, an alpine plant planted in the manner indicated by the sketch would spread its roots close to the surface of the soil, where—since a natural covering of snow cannot be depended upon—the slightest excess of moisture or an excess of drought would be fatal to its existence.

In sketch No. 2 I have tried to represent the right method of planting alpine plants, viz., in a deep, funnel-shaped, narrow fissure between stones let deeply into the ground. These crevices are filled with soil and small stones in such a manner as to constitute a number of miniature earthy channels, through which the roots can penetrate to a medium of richer soil at the bottom, and to such a depth that drought or excessive moisture would leave them equally unaffected. It must not be supposed that such structures of rocks prepared specially for choice alpine plants need present an unsightly or unnatural appearance externally. On the contrary,

with a little thought and skill, the useful and the ornamental may be combined in such a way that the newly-constructed rocks present a picturesque and natural appearance, and yet answer all the requirements of the choicest alpine plants. Sketch No. 3 shows how a narrow, upright fissure among rocks might be adorned by putting in, sideways, a number of plants which prefer such a position. The actual planting operation will be described in a later chapter.

Elmside, Exeter.

F. W. MEYER.

(To be continued.)

## THE LILIES.

(Continued from page 7.)

*L. CORDIFOLIUM* (Thunb), the Heart-shaped-leaved Lily.—A lovely white-flowered Lily from Japan, rarely seen in this country in good condition. It is closely allied to the giant Himalayan *L. giganteum*. Bulbs as in *L. giganteum*, but smaller, fewer scaled, the scales are



NO. 3.—ALPINE PLANTS PLANTED SIDeways INTO AN UPRIGHT FISSURE.

thickened at their bases, white, browning on exposure, perishing with the inflorescence, which it develops in the fourth and fifth year from seeds. Roots stout, deeply descending. Stems hollow, green, three-quarters of an inch in diameter, tapering, 4 feet high. Leaves: Those from the bulbs broadest and with long, fleshy foot-stalks, resembling those of cultivated Beet in general appearance, stem leaves much smaller, 3 inches to 5 inches broad, aggregated at the middle of the stem, pale green, flaccid, generally six to eight. Flowers four to six, in a short spike, white, tubular, expanding but slightly, marked with purple low down the tubes, ascending or slightly drooping, 6 inches long. Stained purple on the mid-ribs, 1 inch to 2 inches from the base externally. Very fragrant. Not common in cultivation. Flowers in August. A miniature of *L. giganteum*, growing but poorly in the open air in Britain. Inhabits deep forests of

Japan at low elevations, growing in masses of leafy deposit in shade.

**CULTURE AND USES.**—This Lily, a charming plant when well grown, requires a warm, shady situation and a root run of leaf-soil. One cannot grow it well in the plant border, but it is likely to thrive among Ferns and in semi-wild rockeries, "rooteries," and such places. Our experience with this plant leads us to advise that it can be grown in cool green-houses. It is a better pot plant than *L. giganteum*, which never seems happy thus treated, and the cool fernery appears to be its proper home.

*L. croceum* (Chaix), the Orange Lily.—A well-known cottage garden plant. It is the most easily managed of all its race. Bulbs large, 6 inches to 15 inches in circumference, often compound, flat topped, white or straw-coloured. Stems 4 feet to 5 feet high, irregularly angled, dark green, purplish below, downy when young, producing quantities of roots from their bases and three to six bulbils among them. Leaves stout, narrowly lance-shaped, numerous, deep green, arching, aggregating into a loose whorl below the inflorescence, a few inches of stem bare below it. Flowers on branched foot-stalks, ten to twenty in a pyramidal branched spike, erect growing, shaped like a very wide funnel, 5 inches across, the petals broadest near the tips, coloured orange, paler externally, dotted in the lower two-thirds, the dots raised on small petaloid processes, which gradually merge into two parallel hairy ridges on the claw. Flowers in July, common in cultivation. Native of South Europe, found under all possible conditions of soil and climate, generally one to two-flowered in a wild state. Exceptionally easy to grow.

*Var. hiemalis*.—An early flowering form, is often found in gardens as *L. croceum*, especially in the Midlands, where it appears to have superseded the type. It is apparently the same as the variety Chaixi of earlier authors. It grows 3 feet high, has slender stems and leaves, flowers narrowly funnel-shaped, six to eight on a spike, and the spotting is very light. Their foot-stalks are 2 inches long and abruptly ascending, so that the flowers are closely pressed to the stem, and, being 6 inches to 8 inches distant, do not make such an imposing pyramidal inflorescence as *L. croceum* does. It cannot be described as a better garden plant than *L. croceum*, but it is certainly neater, and the flowers appear more refined in shape and colouring. Its bulbs are generally smaller, and the flower-buds are very prominent when the spike pierces the ground. Flowers regularly six to ten days earlier than *L. croceum*. Unknown in a wild state. Common in cultivation. Flowers early in July.

**CULTURE AND USES.**—*L. croceum* and its form require no specific treatment. They belong to the rank and file of garden Lilies whose simple requirements are fully met in most gardens. They dislike considerable moisture, manure at the roots, and they grow better in the light soil of plant borders than in peat. Where old-established clumps show signs of wearing out a mulch of manure laid upon the surface in winter will help if the bulbs are not too crowded. Deep planting will ensure fine development in the flower spikes, for they root freely at the bases of the stems, and, if required for such a purpose, they may be grown well in roomy pots, but *L. croceum* is happiest in the border. It is one of the few Lilies that one may use in wild gardens with certain success, and we have seen it thriving well in cultivated shrubberies.

*L. dauricum* (Ker. Eawl.).

*L. dauricum* (Hort.), the Siberian erect-flowered Lily.—A well-known garden plant, which some consider belongs to the umbellatum group, a race of European origin; but we think they show in all stages of their growth a more definite alliance with *L. bulbiferum*. Bulbs white, like a small croceum, scales much contracted at the middle. Stems 2 feet high, very pungent when fractured, downy above, rooting freely from their bases, green or brown. Leaves linear, scattered, closely arranged, the smallest near the top and bottom, 3 inches to 5 inches long. Flowers six to eight in a perfect umbel, erect-growing, 4 inches long and wide, coloured reddish with buff shading, sparsely dotted low down internally. Odour rather unpleasant. A free-flowering Lily of easy culture, but its colouring is not so pleasing as that of *bulbiferum* or *croceum*, with which it flowers in July. Collected bulbs from a large and diversified area reveal no variation from the type. Siberia and contiguous countries, inhabiting a large territory.

**CULTURE AND USES.**—Like most of the cup-flowered Lilies, this one can be well grown in any plant border, and its uses are akin to those of the last species, *L. croceum*, but the plant is altogether smaller.

G. B. MALLET.

(To be continued.)

## THE FERN GARDEN.

### THE MOUNTAIN LASTREA.

*LASTREA MONTANA* (OREOPTERIS).

ONE of our native species, which is practically never seen except in its wild state or in special collections, and yet is decidedly one of the most interesting and one of the most generous in beautiful varietal forms, is the above.

It is also one of the very few Ferns with a pronounced and pleasant odour, its fronds being covered with tiny glands containing an oil with a decided Lemon-like scent, which is imparted to the hands if the fronds are gently drawn through them. By this it can be infallibly discriminated from other species, a fact which it is advisable to remember, as otherwise it bears a very strong superficial resemblance to the common male Fern. It differs, however, in its pronounced yellowish green tints, and also in having side divisions (pinnæ) of the fronds continued right to the base as roundish lobes, while the male Fern has a distinct naked stalk, the pinnæ commencing some few inches up. The Mountain Lastrea is by no means a rare Fern. It is found in immense numbers on hill slopes and in mountain ravines, hence its name; but it is by no means confined to elevated habitats, and we have found it in Epping Forest, in the Weald of Kent, and in the several Sussex forests—in the last-named, indeed, in as great abundance as on the hills of Lakeland and Scotland and Wales. In its requirements it differs from many Ferns in its preference for sandy, yellow loam, and its dislike of lime; and we find that it grows well under pot culture in a mixture of such loam with a little leaf-mould, and the use of rain water only. Drought it cannot stand nor stagnant moisture, hence good drainage must be provided. In the open it will thrive in moist situations, and stands plenty of air and light, as indeed must be implied by its natural habitats. By the sides and on the slopes of mountain streams it exists in thousands, knee high, and in clumps of many crowns together, and often attains a height of 3 feet and more close to the water's edge.

It is a curious fact that up to the middle of the last century this species was regarded as one of the most constant and non-sportive of our native Ferns. Then, however, some of our best known Fern hunters, Mr. J. M. Barnes especially, began to find good varieties, and, stimulated by this, they

and others devoted themselves so assiduously to the search, that eventually a very large number of quite distinct crested, curled, narrowed, truncate, and even plumose types were acquired. The original opinion as to constancy was thus quite upset, and it is rather a puzzle at the present day to account for it, in view of many finds made and their often conspicuous nature. We ourselves, for instance, found an enormous specimen on Dartmoor of a beautifully tasselled form (*L. m. cristata gracilis* Drnery), which needed a horse and cart for its removal and two men to lift it. A year ago we found a beautiful plumose form in Longsleddale, near Kendal; and this year within a quarter of a mile of that find Mr. Smithies found quite a number of conspicuous plants of a heavily grandiceps crested variety—so far unique—and plainly visible twenty yards away. This was in a locality where numerous ardent hunters reside, and forms another proof of the practical inexhaustibility of habitats where many thousands of acres and millions of plants are concerned. Nothing but the actual experience of such discoveries as these can bring home to the mind the subtle and envious influences which must lead to such striking and permanent alterations of normal structure as these "sports" evince. Millions of normals are all around one, and all growing apparently, and, we think, really under identical environments; the soil, aspect, and situation are identical, and yet we suddenly find a clump of a hitherto unknown type, perhaps isolated, and perhaps intimately mingled with the normal. When we lift it and put it under culture it is as stable as any specific form, and almost invariably yields like plants from its spores generation after generation.

*L. montana* differs from other Lastreas in being difficult to raise from its spores artificially, though in its habitats the youngsters often swarm in every crevice of the soil or rock. Mountain air seems necessary, since in all our attempts, although the spores germinate freely, they damp off before completing their functions. Bits of the old caudex or root-stock, however, dipped into a tumbler with a little wet silver sand and kept close soon produce bulbils which rapidly develop into pretty plants true to type. This species is also thoroughly deciduous, the fronds shrivelling and dying down entirely in the autumn. In the spring they rise again rapidly, and in so doing display a peculiarity

which enables the species to be recognised. The male Fern's fronds lift crozier fashion, the tip of the coiled-up frond falling loosely down as it unfolds. In *L. montana*, however, the tip maintains a hall-like form, the minor divisions projecting laterally and rendering its spikes like Magog's weapon, a peculiarity only shared by its near relative the honest Fern (*L. Thelypteris*). This Fern is so beautiful, and especially its crested and plumose varieties, that we strongly counsel our readers to admit it more freely among the other species in their hardy ferneries.

CHAS. T. DRUERY, F.L.S., V.M.H.

## NOTES ON HARDY PLANTS

### TROPÆOLUM SPECIOSUM.

(FLAME FLOWER.)

CLOSE to the park gates here stands the cottage shown in the illustration. A good portion of its outer surface is covered with this *Tropæolum*. The natural soil is of a moist alluvial character, and the cottage is not more than 400 yards from the river Wharfe, which here is influenced by the spring and neap tides. I merely mention this to show the kind of situation. A small plant was put in some few years ago, and it has increased very freely, its underground rhizomes sending up growths some distance from the original plant each year. When trimming the decayed growths away each autumn some of the main shoots are left. They break out again in the spring several feet up the cottage. In the gardens here not more than half a mile away we cannot get this creeper to grow at all. We have tried it in several positions. Our natural soil is a strong loamy limestone. The occupant of the cottage (the house carpenter) is naturally very proud of his success. I ought to mention that the cottage faces west, but the sun's rays are broken by some old Apple trees not far distant.

Grimston, Tadcaster.

H. J. C.

### A FIELD OF BRITISH ORCHIDS.

It may to many seem somewhat extraordinary to write of a field of Orchids in England; but such



THE FLAME FLOWER (*TROPÆOLUM SPECIOSUM*) OVER COTTAGE PORCH.  
(From a photograph by Miss Alice Fielden.)



THE WHITE BACHELOR'S BUTTONS (*RANUNCULUS ACONITIFOLIUS*) BY A SHADY WALK.

an occurrence is not altogether uncommon in some districts. A few years ago, while botanising in the neighbourhood of Burnham Beeches, I came upon the most beautiful display of wild flowers it has ever been my good fortune to see, namely, a large field whose surface was a blaze of colour, varying from deep purple almost to white, made by the flowers of the early Orchis, *O. Morio*. I have never seen such a colony of this pretty little Orchis, nor had I any idea that it ever grew so abundantly in our meadows. I have, however, since heard of other similar instances. One often comes across small clumps and groups of Orchis Morio, but to see a large field surface transformed into a sheet of purple was to me a delightful sight, and one impossible to forget. This, in common with some other British Orchises, has a habit of disappearing for a season or two. One may sometimes look in vain for these quaint and interesting flowers where the previous season they were blooming in full beauty. Instances have been known where in two or three seasons, in meadows that annually were a delightful picture when *O. Morio* was in flower, the Orchises were killed outright through the application of manure to the land. I have had no experience in trying to transplant this Orchis from the fields to the garden, but I should think probably that unless given very careful treatment it would soon disappear. Burnham Beeches and the immediate neighbourhood form a happy hunting ground for the wild plant enthusiast. The Butterfly Orchid, the Tway-Blade, *O. latifolia*, *O. maculata*, and others may be found there, while the Bog Bean, Asphodel, Droseras, and other moisture-loving plants abound. A. P. H.

#### RANUNCULUS ACONITIFOLIUS AND ITS DOUBLE VARIETY.

The only white-flowered Ranunculi native to Britain are the interesting species that are so often to be found on the surface of ponds and streams. Of the European kinds, many inhabit mountainous regions, and mostly have white flowers. None is so widely known and

grown as the robust double-flowered variety of the Aconite-leaved Crowfoot, *Ranunculus acontifolius*. The type, called by Gerard *R. alpinus albus*, is not a high alpine plant, but, growing at lower altitudes, mixes and struggles with other tall vegetation, and, coming to this country with a robust constitution, it thrives very well in places where the smaller species would speedily die out.

The wild form of this pretty plant sends up numerous stems, bearing a profusion of small white flowers. These soon fall off; hence the plant is of little use for cutting. By many the single-flowered is considered unworthy of a place, but a waterside planting is effective. The wild form is not a common garden plant, and in some places it declines greatly in strength in a way that never

happens under similar circumstances with the fine double variety. The seeds, which are borne in quantity, may weaken it, but, judging from the effects of seeding on other Ranunculi, this should not be. The double-flowered variety, with blossoms as full as a miniature double Dahlia, is often seen growing well in gardens rich in fine old plants. The names of Fair Maids of France, Fair Maids of Kent, and White Bachelor's Buttons all tell of its popularity. *Ranunculus acontifolius flore-pleno* probably originated as a garden sport. At all events it existed in quantities in English gardens during and probably long before the sixteenth century, as Gerard, writing in 1597, says: "It groweth in the gardens of Herbarists and lovers of strange plants, whereof we have good plenty, for it groweth not wild anywhere." The last phrase hints at its origin. Often double forms occur in cultivation, although there are many exceptions. In habit this double form surpasses the wild plant, for the flowering stems are very compact and admirably adapted for cutting. The flowers produced in May and June last several weeks in full beauty. In dry soils these plants are not a success. The stems are stunted, the flowers poor, and the leaves frequently destroyed by the borings of an insect, similar in effect to the Marguerite pest. The roots are strong, and can well penetrate a moist clayey ground. The illustrations show both the wild and cultivated plants, but little removed from the water's brink. For an increase, divide the clumps when the leaves begin to fade in summer. D. S. FISU.

*Royal Botanic Garden, Edinburgh.*

#### WILD PINKS,

(Continued from page 6.)

B.—*D. ARMERIA* (the Deptford Pink) is an annual or biennial species, freely reproducing itself from self-sown seed. Generally found growing wild on dry banks or gravelly pas-



DOUBLE VARIETY (*RANUNCULUS ACONITIFOLIUS FLORE-PLENO*) BY WATER.

tures, it has a wide distribution, being spread over a great part of Europe and extending into Western Asia. It is also naturalised in some parts of the United States. Self-sown seedlings form a rosette of short, broad green leaves the first year, from which the branching stems, 2 feet high, are produced in the following spring bearing loose cymes of red flowers, dotted with dark spots, in July and August.

**D. BARBATUS** (the Sweet William) is an inhabitant of the mountain meadows of South and Eastern Europe, and was introduced into cultivation over three centuries ago. Growing from 1 foot to 2 feet high, with broad green leaves, the bearded red flowers marked with a zone near the base of the petals are produced in large, loose heads in summer. One of the most useful and popular of hardy biennials we have; a good border plant of easy culture and good constitution. It has been considerably improved of late years, numerous varieties having been gained with flowers of various shades of colour, far surpassing the wild plant in size and beauty. Double forms are sometimes grown, but are somewhat heavy in appearance and lack the beauty of the single kinds. *D. b. latifolius* is a form with broader leaves and trusses of larger rich crimson flowers; a plant of great beauty.

**D. SEGUIERI**.—A freely branching, erect plant, generally found on grassy hills and amongst mountain thickets in South and Eastern Europe, 1 foot to 2 feet high. The rosy purple flowers are borne in loose heads, sometimes solitary, on short peduncles in summer. In cultivation since 1832.

**D. ALPINUS** (the Alpine Pink) is a beautiful little plant, and may be considered one of the gems of the rock garden. Composed of a tuft of blunt-pointed, shining green leaves, it is at once distinguished from all other species by this character. In poor soil it is very dwarf, producing its large, deep rose-coloured flowers, spotted with crimson, freely. These are borne singly on short peduncles, but when planted in richer soil the plant has a tendency to grow taller and produce more than one flower on a stem. An open situation suits this plant, in gritty soil to which a proportion of lime rubble has been added. It may be increased by means of cuttings, but comes quite true from seed. Flowering in June, this pretty little Pink is found very high up on the alps of Austria and Central Europe growing on calcareous rocks. Introduced in 1759.

**D. BREVICAULIS**.—A very compact little plant, woody at the base, with very short branches and numerous pink flowers borne singly on short stems, so freely produced as to quite cover the foliage. The whole plant is only about 2 inches high, and is suitable for planting in crevices where the roots can penetrate. A native of the alpine region of the Taurus, in Cilicia; it flowers from July to September.

**D. CAESIUS** (the Cheddar Pink) is one of the most useful plants for the rock garden; at once neat and pretty, forming large tufts of

glaucous foliage, a permanent carpet all the year round. The rose-coloured fragrant flowers are freely produced in summer. Of this species there are different forms, some having large flowers borne singly on short stems, whilst others grow taller and have branching stems with two or three flowers. The petals are pubescent and have erenate margins. A native of Europe; it is also found in this country on the Cheddar Rocks in Somerset. Equally at home on ledges in the rock garden or in the ordinary border raised a bit above the level with brickrubbish, it is proof against the damp of our winters.

**D. CALLIZONUS**.—A native of the Transylvanian Alps, growing on calcareous rocks at an elevation of 6,000 feet to 7,000

to 4 inches high. Seeds do not ripen freely, but cuttings root readily in summer, and should be kept in a north frame till planted out. Introduced in 1889.

**D. CARYOPHYLLUS** (Carnation, Clove Pink).—The wild Carnation is a much branched glaucous perennial, found in various parts of Europe growing on rocks and ruined walls. It is also found naturalised in parts of this country on the old stone walls of Rochester and other castles, sending down its long, slender roots among the mortar in the cracks between the stones. The flowers of the wild plant vary in colour, with broad, beardless petals. The origin of the garden Carnation, innumerable varieties of great garden value have been derived from this species.

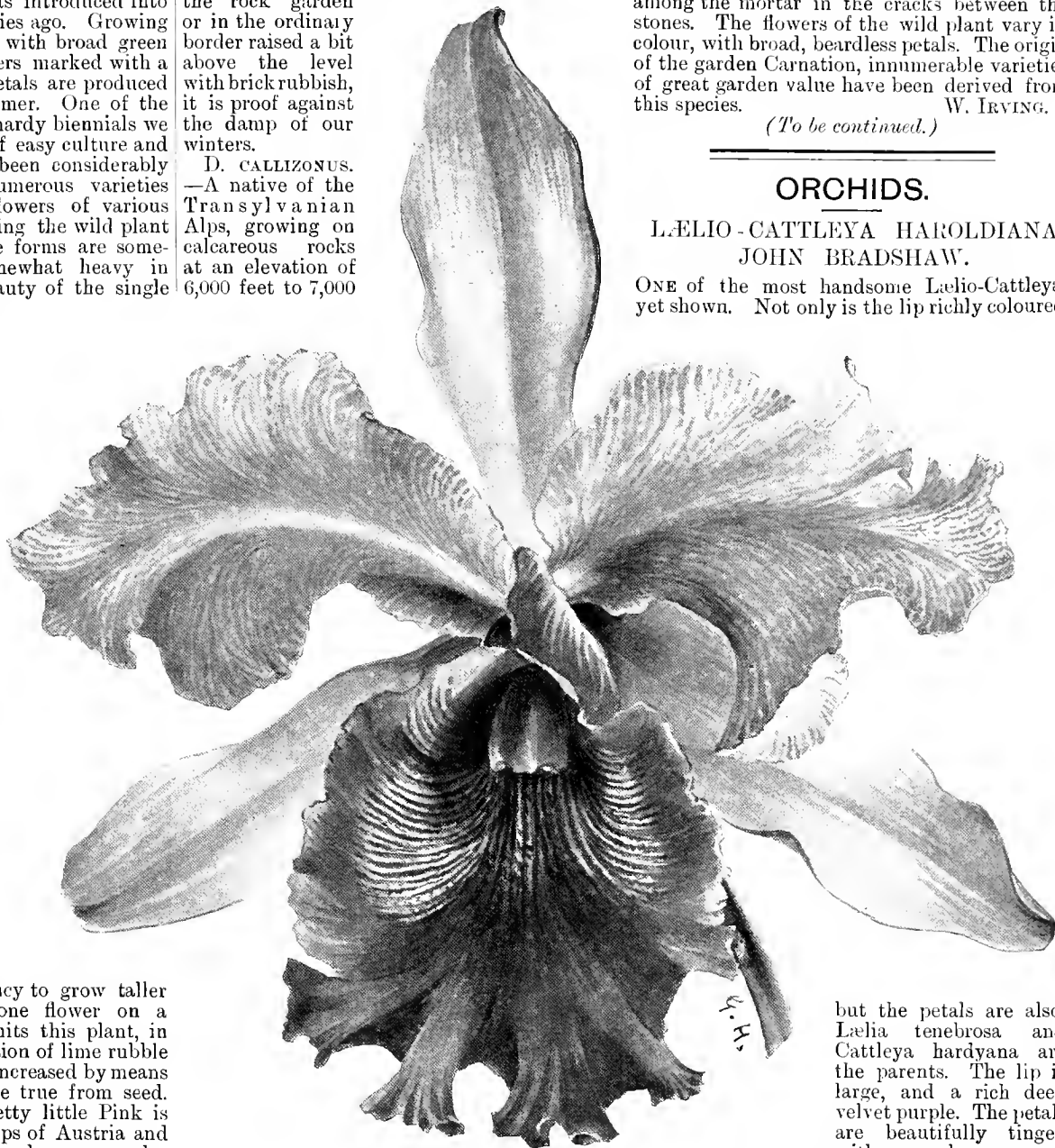
W. IRVING.

(To be continued.)

## ORCHIDS.

LÆLIO-CATTLEYA HAROLDIANA  
JOHN BRADSHAW.

ONE of the most handsome Lælio-Cattleyas yet shown. Not only is the lip richly coloured,



LÆLIO-CATTLEYA HAROLDIANA JOHN BRADSHAW. (Natural size.)

but the petals are also. *Lælia tenebrosa* and *Cattleya hardyana* are the parents. The lip is large, and a rich deep velvet purple. The petals are beautifully tinged with purple upon a buff-yellow ground; the yellow sepals are faintly tinged with purple also.

feet. Many growers have found this lovely little plant difficult to establish. One of the most essential conditions for its successful culture is almost total shade. It should be planted in gritty soil in a position facing west, where the overhanging branches of a small shrub protect it from the sun. Under these conditions it grows luxuriously at Kew, producing its beautiful flowers freely from June to August. These are pink, with a purple, white-dotted zone, 1½ inches in diameter, solitary on stems 3 inches

It was exhibited by John Bradshaw, Esq. (gardener, Mr. G. Whitelegge), The Grange, Southgate, N., recently before the Royal Horticultural Society, and was given a first-class certificate. Of all the forms of *Lælio-Cattleya* exhibited last year before the Royal Horticultural Society, *L.-C. haroldiana* John Bradshaw must certainly be accounted one of the most beautiful, both with regard to the shape of the flowers and their colouring. It is a great gain.

## NOTABLE GARDENS.

### SUMMER FLOWERS AT HALTON.

HINTS FOR 1904.

**T**HE past summer was more unfavourable to general gardening operations than any previous recorded season, therefore there need be little wonder that in many places outdoor decorative gardening has resulted in more or less serious disappointment. Where the now almost obsolete style of flower gardening is still adhered to, viz., beds more or less formal in arrangement, and planted with zonal or tricolor Pelargoniums, Calceolarias, Ageratums, Lobelia speciosa, Gazanias, and other plants of similar character, the results, particularly during June, July, and onward to the middle of August, were most disappointing. A sun-loving plant like the zonal Pelargonium for instance, so frequently found occupying one-half, or even three parts of the area of our parterres and flower-beds, was last season an object of commiseration, if not even of scorn, and the others named fared quite as badly.

In modern gardens we find that the proprietors and their gardeners are each, according to their individual tastes and the adaptability and character of their gardens, devising and adopting different methods of treatment for the summer decoration of terraces, beds, and borders. In the beautifully laid out and well-kept grounds of Alfred de Rothschild, Esq., at Halton, situated on a north-western slope of the Chiltern Hills, and close to the Hertfordshire border of the county of Bucks, a departure has been made, which bids fair to effect a great change, both in the plants used and in the manner of treating them for outdoor gardening. Mr. de Rothschild, I was informed, is deeply interested in the management of this portion of his domain, and as is well known he is endowed with an intense appreciation of the beautiful in the world of Art, and in the arrangement and embellishment of his garden and grounds his gardener doubtless receives many valuable lessons. The departure here adopted consists of interspersing Palms, tropical foliage, and flowers among the shrubs, and also of forming a series of borders on the front of the shrubberies facing the mansion, the terrace, and principal paths. In the most prominent positions are placed specimen *Chamærops*, *Phoenix*, and *Raphis*; tall plants of *Dracæna australis*; finely-grown standards of *Acer Negundo variegatum* are placed in certain advantageous positions, and show their bright foliage through the higher banks of shrubs. Nearer the ground line are well-shaped plants of *Golden Retinospora*, *Golden Privet*, and the best forms of variegated *Cornus*; these are placed at intervals to form a setting for the flowering and foliage plants arranged immediately in front. The most striking feature, however, are the large baskets of Ivy-leaf *Geraniums* and *Fuchsias* 3 feet across, and elevated by a special arrangement among the shrubs to heights varying from 5 feet to 15 feet above the ground. These are arranged in such a manner that the baskets themselves are not in view; they are all well filled with strong plants, which droop 2 feet to 3 feet or 4 feet, and furnish the front of the shrubberies with a grand display of flowers, the effect being unique.

There are from 150 to 200 of these baskets, two-thirds of them being filled with Ivy-leaved *Geraniums*, the varieties *Galilee* and *Mme. Crousse*, of a light and deep shade of pink respectively. The *Fuchsia* baskets are arranged chiefly at lower elevations than the *Geraniums*, and come into line with the plants furnishing the borders immediately in front. The varieties of *Fuchsias* are confined to those having light-coloured sepals and petals, and include *Ballet Girl*, *Lady Heytesbury*, *Mrs. Marshall*, &c., all of which luxuriated in the close, dull showery weather prevailing during the summer. They were a perfect sheet of bloom, and apparently were quite happy under the prevailing conditions. The borders in front, in which are placed *Retinosporas* and other golden foliaged shrubs, are filled in with groups of various plants. *Pyramidal Fuchsias*, chiefly of the variety *Ballet Girl*, 4 feet or 5 feet high, occupy prominent

positions; then are groups of *Acalypha McFeeana*, *Anthericum Liliastrium variegatum*, and *Abutilon Thomsonii*. These are arranged pleasingly, and are fronted by groups of tuberous *Begonias*, all of a soft shade of pink; with these are groups of *Begonias* of the *semperflorens* section, such as *Sutton's Fairy Queen*. These again are edged with borders of varying width (there is no formality in this arrangement), and are planted with *Opbiopogon spicatum foliis variegatis*, with alternate patches of *Abutilon vexillarium*, the ground generally being carpeted with *Nepeta Glechoma variegata*, which is a very neat plant for this purpose. This gives a perfect finish to the grouping, which, at the time of my visit, on September 3, presented the most perfectly finished and harmonious arrangement that I have seen, every group of plants appeared quite at home, having defied both deluge and gales; freshness of foliage and profusion of bloom were in evidence at every point.

There were other beds, some few of which were planted in the stereotyped fashion, but more important beds were raised several feet above the turf; these were planted with irregularly shaped clumps or groups of foliage plants, alternating with groups of flowering plants of equal height, large masses of variegated *Phlox* contrasting with the bold bronze foliage of *Cannas*. Groups of variously coloured *Begonias*, *Coleus*, *Centaureas*, and *Salvias* added to the striking appearance of these large beds. As to any local advantages which may contribute to this pleasing, and to me unique, style of gardening, I have to confess that I could not discover them. The situation is high, and the garden is much exposed to the west and north-west, in which directions extensive views are obtained over *Wendover*, *Coombe Hill* (where has been erected the county's memorial to the Bucks men who fell in the Boer war), *Kimble*, *Bledlow*, and away across *Oxfordshire*, and to the north-west, some 10 miles distant, *Waddesdon Manor* is visible. The soil at Halton is very poor, being almost on the bare chalk. The shrubberies are planted thickly for the purpose of shelter, and notwithstanding the unfavourable conditions of exposure and poverty of soil are thriving well. This wonderful transformation is due to the exceptional taste and knowledge of Mr. de Rothschild, and to the skill of his gardener. J. J.

[The publication of this article has been unavoidably delayed.—Ed.]

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### INSTRUCTION FOR YOUNG GARDENERS.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—I was glad to see a note in a recent number of *THE GARDEN* upon this subject. An instance was given of a head gardener having commenced a weekly class for the benefit of the young men working under him. I consider this to be by far the best way of endeavouring to improve the minds of young gardeners, and so to raise the status of this worthy body of men and to improve their conditions, such work as this goes to the root of the whole matter. Improve the minds of the future generation of head gardeners, and see that they learn something of the science as well as the practice of horticulture, such a training cannot fail to have a beneficial effect and bring to bear a more intelligent and enlightened application. In saying this I do not in the least wish to depreciate the good work done by many head gardeners of to-day; I refer simply to gardening and gardeners generally, and not individually. If young gardeners are given opportunities of gaining knowledge which their masters never had, and take advantage of them, then the status of both gardening and gardeners will rise as a matter of course, and an improvement in their conditions will inevitably result.

We have heard a good deal lately about the proposed Gardeners' Association, and many have expressed doubts as to the real good such an association can do. People talk glibly of improving the condition of gardeners and raising the standard of gardening as though it can be done by following the methods of trade unions. But all such efforts are in my opinion foredoomed to failure. There must be a radical change, such as can be brought about only by influencing gardeners when they are young, and it seems to me that a Gardeners' Association might take this matter up and do very valuable work in this direction. There is no doubt that horticulture is being more and more recognised every year as a most important industry. While agriculture has lost ground, horticulture has progressed by leaps and bounds, until at last even the Government is waking up to the immense importance of one branch of it, namely, fruit culture, and has appointed a Commission to enquire into the present conditions of, and to consider what measures may be adopted to improve this industry.

This instance simply serves to show how essential it is that the rising generation of gardeners shall be thoroughly and intelligently trained, and if the proposed association can do something towards bringing this about it will have begun a work that in the end is bound to bring its own reward. I do not venture here to suggest how this may be done, but I do believe that the only real and lasting good the Gardeners' Association can do to the profession is thoroughly and technically to educate it. It is all very well to say that so long as a gardener knows how to grow fruits, flowers, and vegetables he is able to give his employer satisfaction. So he may, but as long as gardeners continue to retain this spirit it will be very difficult to raise their status. The old order of things is passing away; owners of gardens are realising more and more the possibilities of their gardens, and it behoves the gardener to realise and to master them also.

Indirectly, the question of improving the knowledge and widening the ideas of gardeners affects their wages. As I have just mentioned, employers now require much more of their head gardener than was the case ten years or fifteen years ago, and the standard of requirement is likely still to be raised. They therefore will not be satisfied with a gardener whose knowledge of his calling is confined to the production of fruits, vegetables, and ordinary as to the best colour-schemes for flower borders, the flowers; they will require one who can advise them arrangement of rock gardens, the proper care of alpine plants, intelligent pruning of fruit trees, and other items. Men accomplished in what may be termed the finer side of gardening will be sought after, and they will in consequence demand higher wages. I have probably written too long on this subject, however, so will conclude with the hope that the new Gardeners' Association may not lose sight of what I believe to be the most important factor in raising the standard of gardening and gardeners, namely, general and technical education. HORTUS.

## BOOKS.

**Lays and Lyrics from the German Poets.\***—The translator has compiled a little volume of verses, transposed from the German, of considerable charm, if of rather unequal merit. The little "Song" of Rückert's, "Heaven's Tear," is altogether delightful; the quaint fancy has been expressed with tenderness, grace, and a spontaneousness which is, perhaps, a little lacking in some, but here leaves nothing to be desired. Other verses seeming to call for special notice are "May Time" (Julius Rodenberg) and the "Lament" from Heine. Perhaps the opening verse of this little volume is scarcely happily chosen—a verse from Heine, of which "Sydney Hesselrigge" hardly seems to have caught the charm and delicacy. We cannot help recalling the same lines translated by Mr. Ernest Radford in "Chambers Swain" (Elkin Matthews), under the title of the

\* "Lays and Lyrics from the German Poets." Translated by Sydney Hesselrigge. Henry B. Saxon, Nottingham.



opening lines, "Thou art like unto a flower." However, this hardly detracts from the volume on the whole, and the wee book, dainty in size and well printed, will give great pleasure to many lovers of verse.

"HEAVEN'S TEAR.

"The heavens let fall a limpid tear,  
Which thought 'twould be lost in the ocean drear;  
But a sea-shell caught it and held it tight,  
Saying, 'Now thou art mine, O pearl so white!  
So be not afraid midst the raging storm,  
For I will carry thee safe and warm.'  
O! sky-born tear within my breast,  
Thou form'st my joy, yet my unrest.  
Grant, Heaven, that I in faith and love  
May guard thy tear-drop from above."  
(Song IV. from Rückert's "Liebes Frühling.")

MISCELLANEOUS.

THE ROYAL HORTICULTURAL SOCIETY OF SOUTHAMPTON.

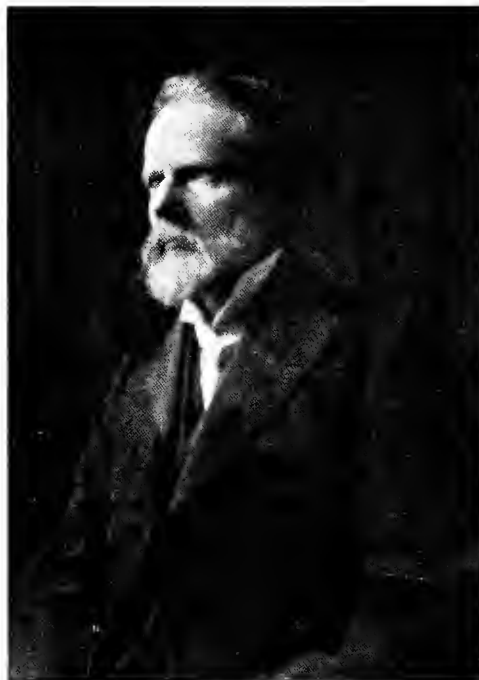
IN 1862 this society was established under the title of "The Southampton Amateur Horticultural Society." A few amateurs, with one or two horticultural friends, met in the December of that year and elected a committee to work up members and draw up a schedule of prizes. Of that committee only two are still living—Mr. Miles and Mr. Slight. Subscriptions did not come in very fast, but, not discouraged, the committee, with Major Lacy as chairman, issued a schedule, in which the majority of the prizes consisted only of cards and certificates, and a capital little show was held on June 29, 1863, under the patronage of the Lord Mayor of London, the first president being Sir Edward Hulse, Bart., and the secretary Mr. Alexander Kelly. In 1864 the word "Amateur" was dropped from the title. In 1865 Lord Palmerston accepted the presidency, and in 1866 Thomas Chamberlayne, Esq., of Cranbury Park, became the president, an office which he retained until his death in 1877. In this year (1866) we find amongst the committee the names of Mr. A. Dean and Mr. C. S. Fudge. The latter soon found favour as a worker, and to him and Mr. Windebank, sen.—the head of the well-known nursery firm of that time—were entrusted for several years the staging arrangements for the shows. At this time the society seemed inclined to run before it could walk, with the result that a debt of £45 was incurred, a debt which was not fully paid off until 1872. In 1872 the first spring show was held, and in this year Mr. Fudge was appointed superintendent of the shows and chairman of the finance committee. The satisfaction which he gave in those positions resulted in his election at the end of the year to the position of secretary. Mr. Fudge at once set to work to increase the membership, which at that time consisted of only 160 subscribers. No less than 350 new subscribers were added in the next two years. From this time the society advanced by leaps and bounds, the shows ever increasing in importance and popularity. In 1877, at the instance of Captain Gibbs, a member of the committee, a small Chrysanthemum show was held in connexion with the annual meeting, the blooms then exhibited being mostly reflexed varieties.

The first open Chrysanthemum show was held in 1878 in conjunction with a cage bird show. This show proved so popular that it has been continued, with three notable exceptions, ever since, always growing in extent and importance; the bird shows ceased after 1889, all the space being required for the horticultural exhibits. It was at the early Chrysanthemum shows of this society that Mr. E. Molyneux made his reputation as a Chrysanthemum grower. The same remark applies in a lesser degree to Mr. Flight of Winchester, Messrs. W. and H. Drover of Fareham, Mr. Penfold of Leigh Park Gardens, Mr. Wills, and others who, in the eighties and early nineties, made a name in the Chrysanthemum world.

The year 1879 was a very important one. The Hon. E. C. Yorke had only been re-elected president about three weeks when he was taken suddenly ill and died a few hours after. It was entirely due

to the great respect in which the deceased gentleman was held by the Royal Family that H. R. H. Prince Leopold was induced to fill the vacant presidency for that year, and that Her Majesty Queen Victoria forwarded, through the Secretary of State, Her Majesty's commands that the Society should in future be styled the Southampton Royal Horticultural Society.

About this time General Lacy, with the object of securing a permanent home for the society, and to save from the builders a very beautiful part of Banister Park, initiated a scheme to incorporate the society under the Limited Liability Act, to be called the Royal Horticultural Society and Gardens, Limited. Three thousand pounds' worth of shares were applied for, directors appointed, the articles of association drawn up, and a draft lease for 999 years submitted, but the whole matter was wrecked over one clause insisted on by the lessor, requiring that the grounds should be laid out, a winter garden built, and all necessary glass houses and other buildings completed in three years—a responsibility no one would face. From 1879 to 1882 the society continued to prosper under the



MR. C. S. FUDGE.

(Secretary since 1872 of the Royal Horticultural Society of Southampton.)

presidency of Hans Sloane Stanley, Esq., of Paultons, Romsey. Unfortunately at this time both the Banister Park and Westwood estates, where the shows had been previously held, were being laid out for building purposes. However, the owner of Westwood came forward with an offer to lease to the society ten acres for fourteen years upon certain conditions. After considerable negotiations trustees were appointed to act as lessees, the lease was signed, and £1,000 raised by the issue of £5 ivory tickets giving certain privileges of admission, &c. The land was handed over to the society in March, 1883, and a start made to enclose the site and erect entrance lodge, store, &c.

The society this year (1883) had the honour of being presided over by H. S. H. Prince Edward of Saxe-Weimar, who, with the Princess of Saxe-Weimar, attended to open the society's grounds on June 28, the grand exhibition of the National Rose Society being the great attraction. The unprecedented number of nearly 300 new members was added to the society this year, but, notwithstanding this and the fact that the great floral fête and the autumn shows were unqualified successes, the council of the society found themselves faced with a deficit of over £300.

However, the tenancy of this ground will be long remembered by horticulturists for the series of grand shows held there, the like of which will probably never be seen again south of Shrewsbury. The most successful probably was that held in 1886, which was opened by H. R. H. Princess Henry of Battenberg, accompanied by Prince Henry. On that occasion over 23,000 paid for admission, in addition to the 3,000 tickets issued to members.

In 1889 the council had to begin the year with a debt of £160, caused by carrying out certain obligations under the lease; it was therefore resolved, against the advice of the secretary, to do away with the autumn show, a disastrous policy, as it turned out, resulting in many members withdrawing their subscriptions; and it was only when these shows were regularly reinstated in 1893 that the withdrawals were stopped. The late Mr. W. H. Rogers, of the Red Lodge Nurseries, was this year elected chairman of the council, and it was largely due to his influence, and steadfast opposition to the unreasonable demands of the lessor, that the society steered clear of the many difficulties that beset it at that time. From 1884 to 1889 the office of president was held successively by the Hon. H. Crichton, the Right Hon. Lord Montagu, and W. H. Myers, Esq. In 1890 Sir Samuel Montagu, Bart., was elected to that office, and he has presided over the society ever since.

In March, 1897, the lease of Westwood Park came to an end, when the society found itself without a home, the buildings and stock-in-trade mortgaged, and with a debt of nearly £350, a considerable portion of this amount being the balance due on the Cinder Track loan. Not daunted, the council set to work to relieve themselves of these difficulties. The bank advanced the money to pay off the mortgage, so that the material required for future shows was saved, and the sale of the remainder, fence, buildings, &c., realised sufficient to meet most of the other liabilities.

The summer show and fête this year was held by permission of the Corporation on the Southampton Common; but the great expense of temporarily enclosing the site resulted in another loss, so that at the end of the year the society was still £140 in debt. To meet this the secretary suggested that £5 bonds should be issued, bearing 5 per cent. interest. The bonds were readily taken up, and another start was made; but no place suitable being available, the great floral fêtes had to be given up altogether. In its place it was decided to try a spring show and an early summer and Rose show, the latter to be held on the Southampton Pier. So successful has this policy been that the subscription list has been well maintained, and by the aid of several garden parties at South Stoneham House grounds, kindly lent by the president, the whole of the bonds were redeemed by the end of last year, the society is free of all liabilities, and has a balance at the bank of nearly £100.

GARDENING OF THE WEEK.

FLOWER GARDEN.

RECENTLY PLANTED SHRUBS.

PERIODICAL inspection should be made of all newly-planted specimen trees and shrubs to see that the ties or stakes do not chafe the bark. If not already done a good mulching should be given.

For this purpose nothing is better than Nature's covering—leaves; where they are likely to blow about a thin coating of soil will keep them in place.

AQUATICS.

During severe frosts Nymphæas and other aquatics should have quite a foot of water over their crowns. Where they are grown in cement or slate tanks the ice should be broken daily, as there is considerable danger of such structures being cracked. The smaller growing Nymphæas, such as N. pygmaea, N. Helvola, N. odorata, &c., are sometimes grown with great effect in tubs sunk in the ground, and, although they are hardly, it is wise to

place some covering over the tubs during severe weather. Where Nymphæas are grown in ponds and lakes a look out should be kept for water rats. These creatures are very fond of the roots, and if not checked will quickly spoil a valuable collection.

#### PRUNING EVERGREENS.

If a severe cutting back of such evergreens as Aucuba, Box, Laurel, Yew, &c., is necessary, it is better to delay the operation until April or May, when the shrubs will soon recover. Providing the labour is sufficient the pruning of Laurels and kindred shrubs should be done with the knife in preference to cutting with hooks: but in many places time does not permit of this. Before commencing the operator should first close up any gaps by tying in the neighbouring branches. All green shoots found amongst such shrubs as the golden and variegated Euonymus, &c., should be persistently cut out, or they will take the lead and soon outgrow the more decorative portion.

#### PRUNING CLEMATIS.

These climbers may now be dealt with. Clematis flammula, C. montana, and such as flower on the last season's growth should be pruned sparingly. The object of the pruner should be merely to remove all weak and dead growths, and to lay in a good quantity of strong growths for flowering. Where there is only a restricted space to be filled by the Jackmanii type this section may be cut almost to the ground; but if the object is to cover a verandah, a large amount of trellis work, or a tree stump it will be well only to cut down part of the stems, or there will be a considerable bare space during the spring and early summer. Hard pruned Clematis will flower somewhat later than those but lightly pruned. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

#### INDOOR GARDEN.

##### ORNAMENTAL ASPARAGUS.

AN effort to repot those plants required to make large specimens should be made early, and attention to increasing the stock of plants should be given by way of splitting up others into small portions, remembering that a portion of root must be attached to each piece. For growing in baskets suspended from the roof nothing can equal A. Sprengeri, and when put into large pots and afterwards grown on stools or stands from 4 feet to 5 feet in height the plants will soon become objects of much beauty. A compost of two-thirds fibrous loam, one of peat, with a small proportion of sand and charcoal added appears to suit them well. Raising these plants from seeds is not difficult, and a good plan is to obtain turves, place the grass side down, and cut them into pieces 2 inches square. Scoop out a portion of the soil of each square to form a hollow place, and fill this with a light sandy compost. Three seeds are quite enough to sow on each square, and place them closely together afterwards in a shallow box. Finally, cover the whole over with sand, and after affording them water from a fine rosed can place in a close temperature of 70° to 75°.

##### FERNS.

Beyond a few plants of Adiantum cuneatum—previously introduced to warmth and moisture to encourage growth and to provide a few green fronds for use in a cut state—these plants generally will still be resting. Preparations for repotting those that require it should be pressed forward, and opportunity be afforded, as the days increase in length, for increasing the temperature as well as the supply of moisture to start them into growth. The compost for Ferns should consist chiefly of peat, fibrous loam only being added to suit the requirements of strong-rooted sorts, and in every instance being used with great consideration. Filmy Ferns at all times delight in a close, moist atmosphere, and among the peat, which should be lumpy, that is used for repotting or resurfacing mix large pieces of sandstone and charcoal.

##### PROPAGATING.

Many Croton plants, which during the autumn, through constant use upon the dinner-table, lose

their leaves and become leggy, should be "ringed." To do this remove the bark about half an inch deep and for quite three-quarters of the circumference of the stem, otherwise notch, i.e., cut out a portion of the stem about halfway through and at a point near the leaves. Around the cut parts bind Moss tightly to exclude the air, and keep this moist by frequent syringing. Afford the plants a close moist atmosphere and a temperature of 70° to 75° to encourage the formation of roots.

##### CALADIUMS.

Generally speaking, none too many of these bulbs are preserved through the winter in good condition, so it is advisable to overhaul the stock at once, and by way of increasing it cut into pieces those bulbs which have two or more crowns, taking care that each portion possesses a crown. After dusting well the cut portions with powdered charcoal, arrange the bulbs in shallow boxes amongst cocoa fibre or sifted leaf-soil, and place them in a temperature of 65° to 70°, where they will soon commence to root.

##### PANDANUS VEITCHII.

At the base of nearly every one of these plants are to be found suckers. It is the weakest of these that should be selected for propagating, as they are generally the best coloured, and eventually grow into the neatest and best table plants. Insert them around the sides of 3-inch pots in sifted leaf-soil and sand and plunge in a bottom-heat of 80°.

J. P. LEADBETTER.

*Tranby Croft Gardens, Hudd.*

#### FRUIT GARDEN.

##### POT VINES

whose fruit is set will take liberal supplies of liquid manure water. A rich top-dressing of good fibrous turf, with a little Thompson's Vine Manure added, will be of great assistance to them, repeating this when they are well rooted. Keep a night temperature of 68°, reducing it to 65° on very cold nights and when the berries are stoning. Pay every attention to watering and the stopping of laterals, two or three leaves beyond the bunch if space allows. Do not syringe the fruit when swelling, but syringe the walls and damp the paths. Avoid very hot pipes when the nights are very cold. From

##### PLANTED-OUT VINES

started early last month remove all the weaker shoots, and select later those which promise best for fruit. Encourage a free growth, and do not be in a hurry to tie down the shoots, except those which press against the glass. Stop all shoots two or three leaves beyond the bunch, giving each lateral plenty of space. When the Vines are in flower more air must be admitted and a drier atmosphere kept. Examine the border when the Vines have gone out of flower, and if dry water with weak liquid manure or clear water. Top-dress the border with short manure, and encourage the roots to the surface; avoid heavy dressing at one time, as this excludes the air.

##### SUCCESSION VINERIES.

If the excellent advice given in recent numbers of THE GARDEN has been followed, the houses and Vines will have been thoroughly washed and painted, and the borders top-dressed. To have ripe Grapes in June and July they should now be started at a temperature of 48°. If young Vines, they will break more evenly if the ends are tied along the front of the house. The border should be examined and well watered with warm water if dry. Syringe the Vines two or three times daily, and damp the house according to the weather, keeping the evaporating pans filled. It is always safe to allow the temperature to fall on very cold nights, and force during the day with sun-heat by closing early on all favourable occasions.

##### LATE VINERIES.

Nothing will now be gained by allowing the Grapes to hang on the Vines. The Grape room should be prepared for them, and the bottles filled with soft water. Choose a fine dry day, and cut the bunches with all the wood above and below the bunch. Examine them occasionally for any

decayed berries, and keep a temperature of 43° to 45°. Prune the Vines, cutting to a plump bud with a sharp knife; the next day dress the wounds with Thompson's Styptic. Wash the house and give one coat of paint, clean all loose bark of the Vines, dressing them with Gishurst Compound. Top-dress the borders with loam, wood ashes, and some approved Vine manure.

Vine eyes to the number required should now be put in. The wood should be firm and well ripened. Cut off a little wood below the bud and put in small pots filled with loam and sharp sand. Keep the bud level with the soil and make firm in the pot. Water lightly and plunge in a bottom-heat of 80°.

F. JORDAN.

*Impney Gardens, Droitwich.*

#### KITCHEN GARDEN.

##### THE SEED ORDER.

NURSERYMEN, ever mindful of the gardener's needs, are now sending their lists, and I would here repeat the advice they give—"to order early." This is a distinct gain to the gardener and a kindness to the seedsmen. The aim should be—first, to select old, well-tried varieties suitable to the district; and, secondly, a few novelties should be grown, as these give an additional interest to the garden. Some will be worthless, and others will be real advances on existing sorts. An inspection of all seeds left over from last year ought to be made. Such seeds as Lettuce, Peas, Radish, Turnip, and almost all the Brassica family will keep good for several years and give satisfactory results. It is well to test any variety that looks doubtful by counting out a certain number of seeds, and sowing them in pots in a gentle heat.

##### EARLY POTATOES.

A start should now be made with the earliest batch of Potatoes in pots. Sharpe's Victor or Sutton's May Queen are two of the most suitable varieties for this purpose. The tubers should be placed in shallow boxes and given a genial warmth to start them. The eyes should be reduced to two of the strongest. The most suitable soil is a turfy loam, to which have been added some manure from an old Mushroom bed and some leaf-mould. The pots should be 9 inches in diameter, clean, and the drainage ample; they ought to be half filled with the compost only to allow a dressing to be given later. The pots should be placed along the front of a vinery about to be started, as this is an ideal place for them.

##### EARLY PEAS IN POTS.

Where accommodation is available this is always a much-prized vegetable, and, where about 400 pots can be fruited, many good dishes can be had. Several sorts are recommended for this work that are the reverse of suitable. Chelsea Gem, Hurlbinger, and that old variety American Wonder are three of proved merit; 8-inch pots will be found to be the correct thing, and the soil something like that recommended for Potatoes. Care must be taken to start them in a cool house or frame, and to grow them hardy. The first batch should be sown now, and a few notes will be given in future calendars as to management.

##### FRENCH BEANS.

A good sowing should be made now, for as the days lengthen these will fruit much better. The pots should be 7 inches in diameter, and three-quarters filled with the compost as advised for Peas. The most suitable variety known to the writer is Veitch's Forcing Favourite. Sow eight Beans in each pot, which may be reduced to five of the strongest. If possible, these should be placed on a shelf near to the glass in the forcing house and kept out of vineries, as it is impossible to keep them free from red spider. As the plants begin to set fruit they will be much benefited by weak applications of liquid manure.

##### MUSTARD AND CRESS.

Sow in boxes every ten days. Press the seeds well into the soil and keep dark till germination takes place. Place in full light as near to the glass as possible in a temperature of 60°.

THOMAS HAY.

*Hopetoun House Gardens, N.B.*

ORCHIDS.

It is absolutely necessary that all plants in the various Orchid houses should be thoroughly cleaned before the end of this month, otherwise, speaking generally, sufficient time cannot be found when repotting, &c., commences to give them that thorough overhaul which is of great importance to their well-being.

INSECT PESTS.

The most difficult insect we have to contend with in the Orchid houses is the small white scale that infests *Laelias*, *Cattleyas*, &c. It conceals itself under the sheath-like covering of the pseudo-bulbs and around the dormant eyes. Very often a workman in cleaning a batch of plants thus infected unknowingly spreads the pest instead of eradicating it. Nothing is worse than to attempt to remove this pest by means of a pointed stick. Beneath the covering are myriads of eggs; when disturbed dry they are carried to all parts of the house. The best plan is to paint the scale over with methylated spirit and then remove them with a brush dipped in the same spirit—most will then be destroyed; but in addition I would advise that badly

that does not fall below 58°. *C. labiata autumnalis* will require little water to keep them sound, providing the temperature of the house is correct. All hard and fast rules as to watering plants that are resting should be avoided. The points to be observed in the resting season are to retain the solidity of pseudo-bulbs, and to keep the plants dormant till their proper season for further development arrives.

W. P. BOUND.  
*Gatton Park Gardens, Reigate.*

KITCHEN GARDEN.

GARDEN POTATOES.

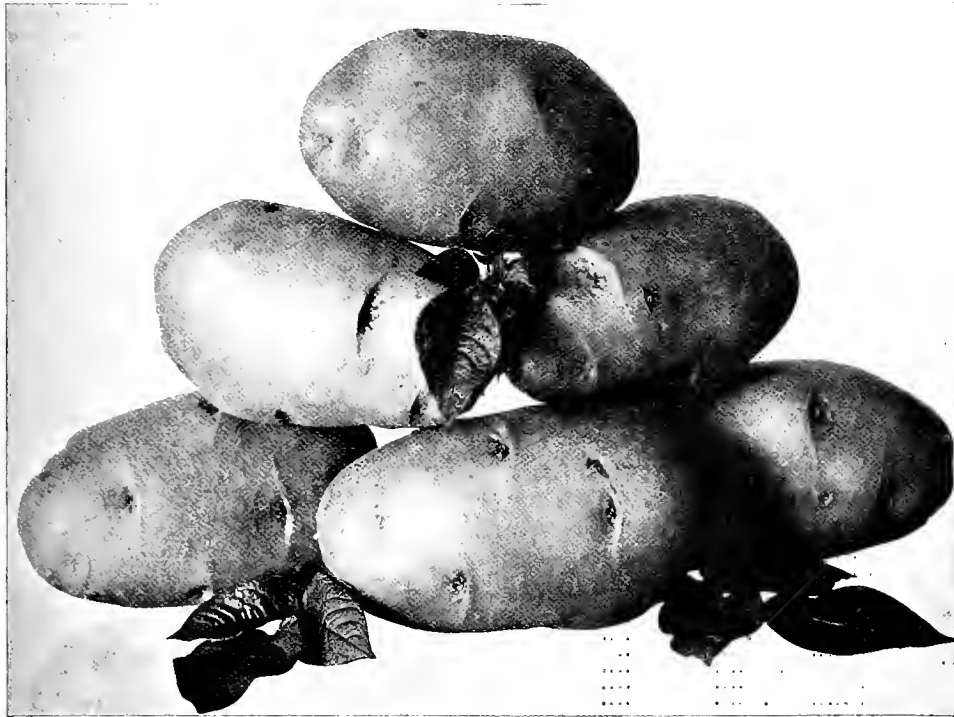
(In reply to "B. D. K.")

THOSE seeking for information as to the best varieties of Potatoes for general garden culture may well just now be bewildered when they read day after day in the general Press paragraphs relating to astounding—and, indeed, outrageous—prices paid for certain new Potatoes,

should all be planted, if outdoors, on a sunny border sloping to the south in good soil, and in rows from 24 inches to 30 inches apart. For mid-season or successional varieties capital croppers are Sir J. Ilewelyn, Snowdrop, and Duke of Rothesay (kidneys), and British Queen, Triumph, and Windsor Castle (rounds).

These can be planted in good soil in more open quarters, the rows being not less than 30 inches apart. The late or maincrop varieties are, on the whole, of the chief importance, because these are expected to furnish a supply from November till June. They must of necessity be late ripeners, or otherwise they begin to start too early into growth during the winter. It is still further important that so far as is possible they are robust, free croppers, and have material disease-resisting powers. As these are all strong growers, it is necessary that ample room should be given them, and in good garden soil, that is even more gross than the open field, where light and air are so much more abundant. We always give these strong growers a width between the rows of 36 inches, and the sets in the rows should be fully 16 inches apart. The root produce is invariably greater when ample room for the tops is given. Very fine varieties for late purposes are Up-to-Date, Improved Kidney, Daniel's Special, The Factor, The Crofter, Evergood, The Sirdar, Abundance, and Magnum Bonum; and of coloured varieties the new kidney King Edward VII., a great cropper and fine quality; the Sutton Flourball, red; and The Dean, purple. We have omitted to recommend such new varieties as Northern Star, Eldorado, Discovery, and many others, because where offered in commerce prices are exceptionally high yet, or the varieties may not be on offer at all. The past season was so unfavourable for Potatoes that in many cases varieties of great promise, and of which great expectations were formed, failed to respond, hence there was not that heavy crop anticipated. It has been, therefore, wisely decided to either offer them at practically prohibitive prices or else to hold over the stocks till another year. You will thus see that whilst of older varieties, so far well tested, there are plenty for your purpose, perhaps too many, it is wise to leave quite new ones alone for a year longer, and thus see how far experience will justify expectations.

A. DEAN.



POTATO EARLY PURITAN.

infested plants be removed to a shed while being cleaned. Mealy bug should be eradicated in the same way, and plants that have this dreaded pest on them should be treated weekly till they are thoroughly clean.

RED SPIDER

is often troublesome at this season, when the syringe cannot be freely used, and we have to use strong fire-heat during cold weather. Plants thus infested should be sponged with a thoroughly reliable insecticide; we find a preparation of soft soap, petroleum, and flowers of sulphur very effectual. *Cymbidiums* should be closely examined for this insect. Thrips used to be considered the worst enemy in Orchid houses; but since the introduction of Richards' XL All Vaporiser this pest has been reduced to a minimum. I advise its use periodically, say once a fortnight.

CATTELYAS.

*C. Trianae* and *C. percivaliana* are now commencing to develop their flowers; rather more water should be given. They should be so placed that all available light and sunshine may reach them, maintaining a sweet, buoyant atmosphere

provided, of course, these paragraphs represent the truth, as to which there may well be a difference of opinion. But, true or not, they answer their obvious purpose, which is to encourage weak-minded people to purchase at prices that are a very long way in excess of the real value of any Potato ever put into commerce. In a couple of years, when competition has put prices of these boomed varieties on a proper level, we shall no doubt see, as we have seen with many others that have preceded them, that they are but ordinary varieties after all. We leave those costly follies alone now, and refer only to varieties that have undoubted—because well tested—reputations. In a garden some early varieties should be grown, some for mid-season, and some for late winter use.

If there be desired tubers of the best table quality, mere size and quantity being less a consideration, then good first earlies, whether for pot or box, frame, or warm border culture are—of kidneys, Ashleaf and Ringleader; and of rounds, Harbinger and Sharpe's Victor. If it be desired to have a greater bulk in tubers, then plant White Beauty of Hebron, Early Puritan, and Duke of York (kidneys), or British Premier (round). These

THE INDOOR GARDEN.

SEEDING CHINESE PRIMROSES.

WHILE it is invariably wisest on the part of those who wish to have good forms or varieties of Chinese Primroses to buy seed, it is possible for them to save seed themselves if they have good plants of good varieties. But to induce flowers to seed well, not only should the plants be placed in the light on a shelf where there is ample ventilation and no drip, but the flowers should be gone over with a tiny camel's-hair brush every other day, so as to secure proper fertilisation. On plants that are not so treated the smaller, later blooms will set or produce seed. The results, however, are far from being satisfactory, as few plants seem to be more retrograde than do these fine-bred Chinese Primroses if artificial fertilisation be not resorted to. When it is so resolved to save seed at home, and plants having flowers of diverse colours or markings are put aside for the purpose, a tiny hair brush should be used for each colour. It may be well to have two plants at least of each colour, so as to secure greater interchange of pollen. The maintenance of the fine form of any good variety seems to be largely due to the fact that in this intercrossing each flower is creating seed the product of two plants' strength, whilst where pure self-fertilisation takes place the strength of one plant only is found. All this care is taken by the great seed growers, and it is singularly interesting to find when visiting such a range of houses as those of Messrs. Sutton and Sons, where some 10,000 *Primulas* are grown, how, when placed together, every plant seems to be the reproduc-

tion of its fellows. This remarkable truthfulness to character is entirely the produce of the exceeding care taken in cross-fertilising to keep the brush used to one description of flower only. A year since, when looking over the huge breadths of Chinese Primroses at Reading, it was marvellous to note that so new a variety as *The Duchess*, probably the most distinct and beautiful variety ever raised, should exhibit in probably 1,000 plants, and every one in bloom, scarcely the least diversity in the vast numbers of flowers open. This firm to secure seed do not sow for plant raising earlier than July. They know that the dulness and low temperature of the first two months of the year are not conducive to fertility; but in March and April, when light is good and warmth increases, then pollen is much more freely produced and the results in seed production are all the greater. Naturally, seed growers have rather low but very light, airy, and well-heated houses for seed production. They also keep them comparatively dry, as humidity is not conducive to fertilisation. But amateur seed growers would probably find the semi-doubles, all of which the professional seed growers fertilise so well and seed so admirably, to be beyond their capacity to make reproductive. Few things in floriculture command admiration so much as does the wonderful way in which seed growers develop and maintain high-class Chinese Primroses. A. D.

### NERINE FOTHERGILLI MAJOR AND GLORIOSA SUPERBA ROTH- SCHILDIANA.

THE first is one of the most brilliant of the genus, and is also one of the most commonly grown. When properly managed it makes a showy display at this season, but there are important though simple points in its culture that must be closely attended to if success is to be attained. The fact of its flowering before the foliage has developed is a defect when plants are regarded from a decorative point of view, though the failure, if it may be so termed, can be in a great measure remedied by mixing the plants with suitable Ferns, &c. When its flower-spikes are grown for cutting this defect is not so apparent, as suitable foliage from other plants, such, for instance, as the small leaves of the *Agapanthus*, or fronds of some of the *Pteris* or other Ferns, may be used with pleasing effect.

Its cultural requirements are simple when understood, but failure to flower it in a satisfactory manner may be easily brought about by inattention. We grow a batch of plants in 6-inch pots, which were last potted some years ago, in a compost of rather heavy loam mixed with sand. Though their bulbs and roots are much crowded, we are loth to repot them, and shall not do so so long as they flower freely as they now do. It blossoms best when potbound; but when repotting, and the thinning of bulbs are absolutely necessary, the best time to do this is just before growth commences, and at the same time the stock of plants can be increased by offsets. Our general treatment is carried out as follows: Once growth begins the pots are soaked in a water-tank, and throughout the growing season the plants are not allowed to suffer for want of a plentiful supply of water, with occasional supplies of liquid manure. The plants are syringed overhead daily, except when in flower. Throughout the growing season the plants are fully exposed to the sun upon a shelf placed near the glass in a warm greenhouse. When the foliage begins to change colour water is gradually withheld, and entirely so during the resting season, and the plants are arranged close to the glass in an airy, cool house. The chief cultural points to bear in mind are not to over-pot the plants, to keep them near the glass fully exposed to the sun at all times, except when they are in blossom, supplied with water during the season of growth, and perfectly dry over the resting period.

#### GLORIOSA SUPERBA

is the species commonly met with, but the new and handsome crimson rothschildiana which flowered in Tring Park Gardens this season

promises to be a keen rival if it can be as easily grown and flowered as *G. superba*. The flowers of *G. superba* are both beautiful and peculiar; they are valuable for decorative purposes, and may be used with marked effect for dinner-table decoration. It is necessary, however, when they are used for this and similar purposes, in order to cause the flowers to assume their natural appearance, to bend the foot-stalks. Fortunately, the life of the flower is not appreciably affected by this. As the plants are climbers they should be accommodated with suitable trellises, and if it is desired to move them from one position to another, then make wire trellises in balloon shape; but a better way is to train thinly their growths beneath the glass, over the roof of a warm house, or upon a trellis surrounding a column. We clothe the roof of an *Eucharis* house with this plant, and train the growths in cordon fashion to wires placed at about 2½ feet asunder. This does not appear to affect the *Eucharis* in any way; in fact, only good probably results from the bright summer sunshine being subdued. Of course, during the dull season, the plants having in the meantime died down, the roof is clear and the *Eucharis* have the benefit of full sunshine when it is needed. Grown in this manner in quantity a very pretty effect is secured. The best compost is a good fibrous loam mixed with some peat and sand, and if large plants are required, three or four strong tubers should be placed in a 10-inch or 12-inch pot in early spring before they begin to grow. Water sparingly until free growth has commenced, when give a plentiful supply, and weak liquid manure once a week. The plant is seldom attacked by an insect pest, but nevertheless daily syringings are very beneficial. When it is properly treated its shoots make rapid progress, and require to be frequently secured to their supports and shaded from direct sunshine. As soon as growth ceases, and the flowering season is over, gradually withhold water, and once the foliage turns yellow keep the soil perfectly dry. At this stage the tubers may for convenience sake be taken from their pots, and stored throughout their dormant season in dry soil in small pots or boxes. T. COOMBER.

*The Hendre Gardens, Monmouth.*

### RAINFALL DURING 1903 AT THE GARDENS, HAMPTON MANOR.

Month.	Days on which Rain fell.	Amount.
January .....	17	1.93
February .....	7	1.10
March .....	21	4.48
April .....	12	1.35
May .....	18	3.61
June .....	8	1.82
July .....	16	2.95
August .....	18	3.92
September .....	11	2.39
October .....	26	6.27
November .....	17	1.74
December .....	14	1.51
Total .....	185	33.07

Greatest fall in twenty-four hours: On July 25, 1.13; and on October 14, 0.94. Highest maximum in shade, July 10, 86°; and in sun, 130°.

*Hampton-in-Arden.*

NEIL SINCLAIR.

## NURSERY GARDENS.

### VEITCH'S WINTER-FLOWERING BEGONIAS.

AMONG plants introduced of recent years, probably none have proved more valuable than the winter-flowering Begonias raised by Messrs. James Veitch and Sons, Limited, of Chelsea. They have undoubtedly been a great boon to many gardeners, both professional and amateur, who value either a supply of cut flowers during the winter months, or who take delight in a greenhouse or conservatory made bright by something other than *Chrysanthemums*. Except *Chrysanthemums* there were really few plants that could be depended upon to produce a show of bright colour at this time of the

year. Zonal *Pelargoniums*, it is true, are most useful, but they are not altogether satisfactory; as cut blooms they do not last long, and the plants in flower can hardly be said to be all that one could desire for house decoration. The new hybrid winter-flowering Begonias are, therefore, a most opportune as well as a valuable introduction, and none who know their value will care to be without them.

We lately paid a visit to the Feltham nurseries of Messrs. James Veitch and Sons, Limited, and there we found this new race of Begonias in splendid flower. Several houses are filled with them, and they were a blaze of colour. Visitors to the Drill Hall show of the Royal Horticultural Society have had plenty of opportunity of seeing these Begonias, for Messrs. Veitch have made some brilliant displays with them during the late autumn and winter months. To Mr. John Heal, who is a clever and practical hybridist, is due the inception of this race of Begonias, by crossing *B. socotrana* with the tuberous Begonias. *B. socotrana* is in itself a valuable and handsome winter-flowering Begonia, but its progeny has been much improved in the important considerations of floriferousness and compact habit.

Among the best of these Begonias are *Ensign*, which grows about 2 feet high, and produces branching heads of semi-double rosy carmine flowers upon stout footstalks. The flowers show well above the foliage, and render the plant one of striking appearance. *Begonia John Heal* is one of the most valuable, and for the reason that its blooms are extraordinarily persistent. It is of compact habit, growing some 9 inches to 12 inches high, with leafage much resembling that of *Begonia Gloire de Lorraine*, but much finer and larger flowers. Individual blooms of this variety have been known to remain upon the plant for nineteen days, so its value for decoration may be said to be unique. The flowers, which are of a bright glowing rose colour, do not drop off even when they are over; they just shrivel. This characteristic enables the plants to undergo a long journey without losing their blooms, which in itself is sufficiently rare among single-flowered plants to render them of more than ordinary value. *Begonia Mrs. Heal*, which grows about 15 inches high, has rich green leaves, and large, fully open bright red flowers. *Winter Cheer* is a variety that is well named, for its rich carmine semi-double flowers are well designed to make cheerful the greenhouse during winter. This is very vigorous, growing some 2 feet high, and producing strong, striking foliage. *Julius* may be considered to be one of the most distinct of this new race of winter-flowering Begonias; it usually reaches a height of some 18 inches and flowers profusely, the plants being almost covered with semi-double bright pink flowers, which have the merit of lasting a long time in beauty. *Agatha* has rather larger and brighter flowers, and is of more compact habit than *Begonia Gloire de Lorraine*. The flowers last well. *Agatha compacta* may be described as a very dwarf, compact *Begonia Gloire de Lorraine*. It makes charming little plants in quite small pots, and is wonderfully free-flowering. Success bears semi-double blooms of a glowing carmine colour, and has a yellow centre. *B. Ideala* flowers well in 3-inch pots; it resembles *B. Gloire de Lorraine*, but has bright carmine flowers. *B. Winter Perfection* is of stiff growth, has robust, handsome leaves, and bears rich rosy pink flowers, which have yellow centres. *B. Frœbeli incomparabilis* bears single blooms of a very bright red; it is to be recommended for the colour of the flowers alone.

In the houses at Feltham there are numerous other plants, often neglected or little grown, and in reintroducing and endeavouring to bring them into popular favour Messrs. Veitch are doing a good work. As an instance we may mention *Peristrophe speciosa*, an old plant that is very valuable during winter for the greenhouse. It is rarely grown except in botanic gardens, yet it is a plant of real value to the private gardener, and this is just one of many. We hope Messrs. Veitch will succeed in widely diffusing them, then perhaps we may see variety in the stoves and greenhouses in private gardens throughout the country where now too

often there is but monotony. *Primula obconica* stands sorely in need of improvement, particularly with regard to the colour of the flowers; there is little enough variety in the shades of colour now to be had, and they cannot be said to be of the most attractive. Messrs. Veitch hope soon to be able to effect an improvement in this respect, and it will be a most welcome one. *P. obconica* is a most useful plant, and when the colours of the flowers have been made more attractive it will be indispensable.

The Feltham Nurseries cover about sixty acres of land altogether, many of which are devoted to the culture of hardy fruit trees. Pot Vines, Figs, Peaches, Nectarines, Pears, Apples, Cherries, &c., are largely grown in pots under glass, and at the time of our visit many splendid plants were to be seen. The Figs in pots had made remarkable growth; from cuttings inserted early this year we were shown well-developed plants bearing fruits. The pot Vines, too, the Muscats especially, were remarkably good. One house is devoted to a collection of Oranges in pots, and in others are trained specimens of Pears, Apples, Peaches, Nectarines, &c. Some rider standard trees of Peaches, two and three years old, gave evidence of the very best culture; and of Cherry and Pear trees in pots we may say the same.

## PROPOSED GARDENERS' ASSOCIATION.

THE brief note published in last week's issue of THE GARDEN enabled readers to learn that there is a prospect that the hopes so many gardeners have formed, as to the creation of a national association devoted to their interests, are not unlikely to be realised. The chief difficulty which besets the promoters now is, not the lack of suggestions, practical or otherwise, but in their abundance on the one hand and need for putting them into a concrete form on the other. The recent meeting had the pleasure of hearing from Mr. W. H. Divers of Belvoir Gardens his reasons for desiring the formation of a national association of gardeners. These included a desire to relieve gardeners of the unpleasantness of being classed as ordinary domestics by Government, and thus enabling them to take similar status to that occupied by the higher staff of an estate. The gardening profession was far too overcrowded, with the result that not only were wages reduced but good men were shut out from places, although having by far the greatest experience, because cheap young men accepted positions at lower wages. One means of reducing the overcrowding was to require from young gardeners greatly advanced educational efforts, and a reduction of youths taken into bothies, so many of whom soon showed they had no gardening proclivities. He had not the least desire, a sentiment generally concurred in, to introduce into the proposed association any trade union element. He had always felt that nothing tended so strongly to promote comfort and happiness in a gardener as that he should possess fully his employer's confidence and esteem; he would like to see the association become the centre of all other gardeners' associations, and that it should also help to promote the interests of the gardening charities amongst the fraternity. Mr. J. McIndoe, V.M.H., much wished to see such an association formed. Whilst it was proposed to reduce both hands, of which in the south there seemed to be too many, in the north he had found it difficult to secure them, because wages generally in other vocations were so much better. The present overcrowding seemed to be in the older grade of gardeners, and if the trained bothy men were fewer that trouble would in time correct itself. Mr. G. Norman, V.M.H., thought they might look to the Royal Horticultural Society for some assistance in the direction mentioned. He thought the council could prepare a register of all gardeners seeking places, to which the employer might with confidence refer, and thus enable them to secure the services of the best men only. He regarded a testimonial from a head to a young gardener as a good certificate, because no one could have a better knowledge of the real merits or other-

wise of a youth than the head gardener had. Still there was a danger lest from kindly motives testimonials might be too liberally worded. He would like to see young men spending a year for training in forestry, in farming, in general estate work, &c., to fit them to become ultimately stewards and estate agents. Mr. J. Willard wished to see gardeners, and young ones especially, taking to the vocation seriously, making it the great aim of life, and seeking by personal effort to raise themselves and the status of the gardener also. Mr. J. Jaques wished to see some form of examination imposed on young men before being admitted to the position of foreman, which he thought should be conducted by the Royal Horticultural Society. Other speakers thought any such examination to be of a practical nature should be conducted by the gardeners' association itself. Mr. C. Fielder, Mr. W. Howe, Mr. Simpson of Croydon, and others spoke, including the chairman, Mr. Owen Thomas, V.M.H., who cordially thanked Mr. Diver for attending and giving the meeting an expression of his views. It was ultimately decided that a small committee be formed from the meeting to frame a scheme to submit to an adjourned meeting to be held on the afternoon of the second Drill Hall meeting in February. The committee comprised Mr. Owen Thomas, chairman; Mr. A. Dean, secretary; and Messrs. W. H. Divers, J. Jaques, McIndoe, Norman, C. Dixon, J. Willard, and J. Kelf, to any of whom gardeners wishing to make suggestions are invited to communicate early, as the committee will hold meetings in January for the purpose named.

## THE FRUIT GARDEN.

### EFFECT OF BASIC SLAG ON CURRANTS.

I HAVE this year had a most striking example of the effect of basic slag upon Red Currants, an account of which may not be uninteresting to readers of THE GARDEN. The trees are on a south-west wall some 5½ feet in height, and on the other side is a large Apple tree, so that it is generally a pretty dry position. In front of the Currant trees is a 4-foot border devoted to Carnations. Last autumn these were all taken up, and the border dug up for the first time for three years, at the same time receiving a good dressing of road sand, some rotted manure, and basic slag, at the rate of 5lb. to the 20 square yards, that is, 10cwt. per acre. The border was then replanted with Carnations. About the end of May all the Currant shoots above the wall were gradually pinched to two or three leaves, so as not to catch the wind, and at the same time the shoots from the base of the wall to the top were thinned by the same process to let the sun to the fruit, as well as to the next year's fruit-buds. At the final pruning in the autumn it was noticed that in the axil of the terminal leaf of each stopped shoot there were at least four or five buds, instead of the usual one only, while in the axils of the one or two leaves below, according to the extent to which the young shoot was pinched back, there were two or three buds. Most of these must be fruit-buds, probably all but one in each axil. An examination of similarly stopped Red Currant shoots on trees in other parts of the garden showed that there was only one bud in the axil of the terminal leaf, and in many cases the terminal bud had produced a secondary shoot.

It is a most striking proof of the effect of phosphate—basic slag being phosphate of lime—in inducing fruitfulness. Another noteworthy fact, which can scarcely be a mere coincidence, is afforded by a large Apple tree in my neighbour's garden, the roots of which I have often come across in my own. For quite twenty years that tree produced a large crop, averaging twenty bushels every alternate year, frost or no frost. Three years ago the vegetable quarters, where the roots of this tree are to be found, received a heavy

dressing of basic slag, which was repeated in a less degree last winter. The Apple tree under discussion has produced a good crop two years out of the last three, with a fair crop the intermediate year, and it is now well set with fruit-buds for next season. There can be little doubt that the tree rested alternate years while getting in touch with further supplies of plant food, and that the application of the basic slag brought the needed food to the roots, and so enabled it to bear every year.

A. PETTS.

### FRUIT GROWING IN QUEENSLAND.

THE Minister for Agriculture in Queensland, desirous of assisting fruit growers in his State by establishing new markets, has bought up the whole of the season's crop of Cape Gooseberries, a fruit which makes a delicious preserve, for pulping, and enquiries are being made in Great Britain as to the feasibility of establishing an export trade in this article on payable terms. Cape Gooseberry jam can be purchased in London, and as a table delicacy it would, were it generally known, be greatly appreciated. The Queensland Agricultural Department is also thinking of trying an experimental shipment of Pine-apples to London in order to test the transit question thoroughly. Pine-apples are produced in Queensland as freely as Apples are here. In the Brisbane district alone close on 200,000 dozen are grown yearly, and all over the State these delicious fruits are cultivated, and are an ordinary item of dietary. If shipped to this country it would be on a commercial basis, and the fruit would be sold cheaply. Bananas are produced in Queensland in enormous numbers; the average annual crop may be put at about 2,000,000 bunches, and taking, say, 120 "fingers" to a bunch, we get the estimated yield of single Bananas in Queensland for a year as 240,000,000! Bananas flourish everywhere on the coast lands, and many small settlers make a decent living by taking up virgin scrub at £1 an acre, and growing Bananas thereon after clearing. The Banana has the virtue of bearing all the year round in congenial conditions. Mangoes are grown in Queensland with such ease that in good seasons the local demand is unable to deal with the output; 1902 was a bad year for Mangoes, but in 1901 some 350,000 dozen were grown in the State. After some hesitation in taking to this fine fruit when it was introduced about twenty years ago, Queenslanders now regard it as a commonplace, and, raw and preserved, it is eaten all over the State. Oranges suffered from last year's drought, but their cultivation in normal seasons is an important section of the fruit department; about 20,000,000 Oranges were grown in 1901. There is a large export trade in all these fruits mentioned to the southern States of Australia, Queensland being the supplier of all the tropical and sub-tropical fruits to Australasia. The area of Queensland is so extensive (669,000 square miles) and the climate so varied that in one part or another every known fruit flourishes. Cocoanuts are grown on the islands which fringe the northern coasts in great numbers.—*North Queensland Herald.*

### RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for January contains portraits of

*Cymbidium rhodochilum*.—Native of Madagascar. This is a handsome and still very rare Orchid, to which in this number no less than three plates are devoted. The double plate showing the heads of flowers life size, and the single plate the entire growing plant much reduced. It was introduced into cultivation by Mr. G. Warpur, and in its native country grows on masses of *Platyserium* on the branches of tall trees. Its flowers are green, with the two upper petals spotted with black, and a large red lip.

*Prostanthera denticulata*.—Native of Eastern Australia. This is a pretty shrubby labiate with rosy purple flowers very freely produced up the ends of all the shoots.

*Arethusa sinensis*.—Native of Western China. This is a pretty little terrestrial Orchid with bluish-



A RIVERSIDE GARDEN AT HAMMERSMITH, LONDON.

white tubular flowers, with deep rosy markings at their mouths.

*Passiflora vitifolia*.—Native of tropical America. This is also known under the synonyms of *P. sanguinea*, *P. punicea*, *P. servitensis*, *P. Buchanani*, and *Tacsonia Buchanani*. It is one of the most brilliant coloured and beautiful of the whole Passion Flower family, with large scarlet flowers. It is by no means a new plant, having been introduced more than fifty years ago. It requires a warm temperature, and grows at Kew in the Palm stove and tropical Lily house.

The *Revue Horticole* for the 1st inst. contains portraits of two fine new varieties of perpetual-blooming Pinks, named respectively Chatillon and Mme. Bixio. The January number of *Flora and Sylva* contains coloured plates of *Eurothera speciosa rosea*, a most beautiful and graceful plant, with clear rose-coloured flowers, and *Primula megasalfolia*, a pretty and free-blooming variety, but, unfortunately, not hardy, and requiring greenhouse culture.

W. E. GUMBLETON.

## OBITUARY.

### DEATH OF MR. JAMES SMITH, LATE OF HOPETOUN GARDENS.

BY the death of Mr. James Smith, late of Hopetoun House Gardens, on the 27th ult., Scotland has lost one of its best gardeners and a most estimable man. A native of Ayrshire, after filling several subordinate positions in various good gardens, Mr. Smith received an appointment in a Perthshire garden as head gardener, whence he went to Ingleston House, Ratho, in a similar position. Thence he was appointed gardener at Moredun House; later he was chosen to fill the still more important post of head gardener at Hopetoun House, Linlithgowshire, some sixteen years ago. There he remained, enjoying the confidence of his employers, the Marquis and Marchioness of Linlithgow, until the state of his health, which had practically laid him aside for a considerable time, necessitated his complete retirement in

November last. Through the thoughtfulness of his noble employers, Mr. Smith was enabled to retire to live at Hillview, Bonnyrigg, where it was hoped that he might be long spared to spend his declining years in peace and comfort. However, it was not to be, and the sciatic complaint, which had caused him so much suffering, eventually proved too much for his system, and he expired on the 27th ult., his funeral taking place at Abercorn Churchyard on the 30th ult., when his remains were accompanied to the grave by a number of sorrowing friends. Mr. Smith was a man of great ability as a gardener. He was specially interested in hardy fruits; but it is not too much to say that he was a good gardener all round, and the condition in which the extensive gardens of Hopetoun were kept showed his ability as a manager of men. He was highly esteemed in private life, and all who came in contact with him speak highly of his modesty and kindly disposition. None were more attached to him than his successor, Mr. T. Hay, who served under him as foreman for some years, and who had charge during the long illness of Mr. Smith prior to his retirement. His services were in much request as a judge and as a member of such bodies as the council of the Royal Caledonian Horticultural Society. Mr. Smith is survived by Mrs. Smith and several of a grown-up family, for all of whom deep sympathy is felt in their bereavement.

## A TOWN GARDEN.

If we could but be persuaded to take advantage of the opportunity at hand, instead of waiting for that which may never come, many gardens, amongst other matters, would fare better than they do. Town gardens are a proverbial trial to their owners, yet here and there, under no specially favourable circumstance, we meet with one which is entirely satisfying. The illustration is an eloquent example of simple arrangement, combined with loving care, and we should like to call attention to the great advantage of paved or tiled, rather than gravelled, pathways in such limited quarters. We were called in, not long ago, to prescribe for a small town garden whose unhealthy condition was an eye-sore to its owner.

The central plot had, in despair, been laid down with gravel not long before, but was already beginning to look sodden, and was blackened in patches with some fungoid growth. Many things had been tried in the borders under the surrounding walls; two Aucubas alone survived, but these were remarkably flourishing. It was evident, nevertheless, that something would grow, and here was the inspiring hint. Shade-loving shrubs—Hydrangeas, for example—and Ferns might yet retrieve the situation. Doctor's prescriptions are not always carried out; but flagged paths and a central border, with plants chosen according to aspect and not left entirely to the unaided effort of the jobbing gardener for after-cultivation, would go far to make the town garden something better than the dreary cats' paradise which too often it is at present.

## NOTES FROM THE MARKETS.

**CHRYSANTHEMUM A. J. BALFOUR.**—Though some growers condemn this variety I find others speak in its favour. It is certainly one of the best of its colour for pots. One grower has been bringing in some dwarf well-flowered plants in 4-inch pots; and as late as the 24th ult. it was in fine condition, the colour of the flowers being a very pretty shade of pink, perhaps a little deeper than the original type. The same grower also had a distinct sport from this variety, a pale cream, with just a slight shade of pink on the florets.

One grower from the south informs me that while he has not succeeded with Framfield Pink (Mme. Felix Perrin) he has found A. J. Balfour a most profitable variety; the blooms he submitted to me were bright in colour, and though not disbudded were of a useful size.

**Chrysanthemum W. H. Lincoln.**—We hear much of new and improved varieties, yet this still holds its own, and is one of the best yellows, especially for pots. Most of the market growers favour this, and good pot plants have been plentiful. For cut bloom, too, it is not to be despised, for it is of such good substance. There are few yellows which last so well, beside which it can always be depended upon to give good blooms.

**Princess Victoria.**—This is of a creamy shade when it first opens, but changes to pure white; it is one of the best for December. Several growers have been bringing in good blooms, it appears to be a general favourite with buyers; this was one of the best whites in the market on the 2nd inst., and it will evidently keep good for some time.

**Covent Garden Flower Market (January 2).**—The frosty weather has practically stopped trade in pot plants. Some growers were represented, but many of the stands were empty, and those who had ventured did not find much demand. Tulips and Hyacinths are now coming in, Tulips in all colours being very plentiful. Hyacinths are very good, but I have only seen them on one stand at present. Several growers are sending Azaleas, Genistas, Erica hyemalis, and E. gracilis are still coming in. Small Ferns now sell better, but larger sizes are not much wanted. Very high prices are asked for all good cut bloom. Some of the Chrysanthemums are now past their best, but there is plenty of good to be had at top prices. Lily of the Valley was plentiful. *Lilium lancifolium* and *longiflorum*, Callas, Azalea, Eucharis, and cut Poinsettias were equal to all demands. The Christmas trade finished up well, especially in cut bloom, which went up to high prices. Most flowering plants were pretty well cleared out, but there were a good many Ferns, Palms, and other foliage plants left over. There was a great demand for Holly and Mistletoe, and well-berried Holly made high prices. Christmas trees (Spruce Fir) did not clear out so well, and there were a good many left on the market.

A. H.

# THE GARDEN

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## FLOWER-FORCING WITH ANÆSTHETICS.

**I**N the *Lancet* of the 9th inst. particulars are given of remarkable experiments with the use of anæsthetics upon plants. The object of the experiments is to prove that by the use of anæsthetics plants may be brought into flower at an abnormal season, and by their undiminished brightness add to the enjoyment of the indoor garden. The experiments have, therefore, a practical bearing upon commercial horticulture. It will be, therefore, interesting to our readers in general to reproduce the article referred to, as the experiments have been made with the greatest care to ensure practical results.

"The close similarity in composition and properties of animal and vegetable protoplasm is brought into strong relief by the extremely interesting and curious investigations that have been recently made on the action of the vapours of ether and chloroform in promoting the process of inflorescence in plants, or, in other words, in forcing them to flower at an earlier period than is natural to them. The production of early blooms in the Lilac, the Lily of the Valley, the Dentzia, and the Azalea is a large and important industry in the early spring, and for any grower to obtain well-developed flowers a week or two in advance of his brother horticulturists, especially if it can be accomplished at little cost, means large receipts, and, in addition, the satisfaction of successful rivalry. Many years ago Claude Bernard, desirous of recording the phenomena common to animal and plant life, submitted both to the action of anæsthetics. He placed a specimen of the sensitive plant under a bell glass with a small sponge dipped in ether and found that after the lapse of a few minutes the expanded leaves became insensible and ceased to close when touched.

"This experiment has been the parent of much research of late years, and the results obtained have been summed up by M. Emile Lemoine, a fellow of the Royal Horticultural Society, and have been published in the last number (October, 1903) of the journal of that society. The next step was taken by Dr. W. Johannsen of Copenhagen, who, noticing that many plants push forth their buds after a period of repose such as occurs during the winter months, or even in unfavourable seasons during the summer, conceived the idea that by inducing such a condition of rest by means of

anæsthetics the plants would be, as it were, renovated and stimulated, and rendered capable of developing their buds with greater vigour. Acting on this principle, Dr. Johannsen was able to show at a meeting of the Copenhagen Academy of Sciences Lilac blossoms forced by etherisation.

"The value of the proceeding was quickly recognised by horticulturists in Germany, France, and England, and these experimenters all proved in accord in regard to the remarkable power that the vapours of ether and chloroform have in promoting the formation of the inflorescence of plants. Lilacs, and especially the variety named Charles X., which is notably a difficult one to force, Lilies of the Valley, Azaleas, and Deutzias were subjected to the vapour of ether, and stimulant effects on the production not only of flowers, but of leaf-buds and leaves, were observed. M. Leblanc reported to the Société Centrale d'Horticulture de Nancy that his experiments with chloroform had been quite successful. On February 19 last he chloroformed some plants of *Azalea mollis*, giving them about half the quantity he would have used had it been ether, and exposing them to the action of the vapour for about forty-eight hours. They were at once removed to a greenhouse at a temperature of 65° Fahr. From March 5 the flowers began to expand a little, and attained about to their full dimensions on the 8th, whereas plants grown for comparison were not expanded until March 21. The chambers in which the vapours are set free should be of large size, and, to prevent their escape, should be absolutely airtight; and all manipulation must be executed in the daytime, since the approximation of a light, if air has gained access to the interior, is liable to be followed by violent explosion, which may occasion great destruction of property and possibly loss of life. The quantity of ether employed to air was about 30 or 40 grammes of pure sulphuric ether boiling at 95° Fahr. to 100 cubic litres of air, and the duration of exposure one or sometimes two periods of forty-eight hours. The economy of fuel effected by this method of forcing, which can be done at either a high or a low temperature, is considerable, and covers the cost of etherification."

It will be interesting to see whether this use of anæsthetics will become general. We doubt it, but in these days the desire to possess flowers out of season is increasing, and we confess that Lilacs, Azaleas, and Lilies of the Valley are enjoyable when winter is still with us.

## COLOUR SCHEMES IN THE MIXED BORDER.

It is a great pleasure to me to find that my article of the 28th November last has called forth so many interesting and useful contributions on this subject, and I am truly grateful to "G. J.," Mr. W. T. Hindmarsh, "Evelyn," Mrs. Mary Buxton, and Mr. S. Arnott for their kind suggestions in recent numbers of *THE GARDEN*. Aided by these and by much valuable advice received in the course of conversation with gardening neighbours, to say nothing of my own study of various books and catalogues, I have now compiled quite a long list of "desiderata," including many blue, or nearly blue, shrubs and plants, and I begin to wish I had an empty border once more to begin work upon. I fully expect I shall be marching and countermarching my poor soldiers, especially the blue regiment, about the border for several years to come—a state of things which may end in the "survival of the fittest" alone! It is, perhaps, well I did not start with too large a number of "recruits" last spring. To arrange that blue corner artistically and satisfactorily seems to me almost hopeless, for though there are a fair number of perennials and annuals that are undeniably blue, the shrubs available are nearly all grey-blue, or of some shade of purple, violet, or mauve. If only such a good coloured shrub as *Ceanothus Indigo* were quite reliable I believe it would be the very thing, but I fear that, at any rate till the Beech hedge has grown a lot, the situation is too exposed for it.

I wonder if any reader of *THE GARDEN* has tried the varieties of *Amorpha fruticosa*, the *Amsonias*, *Rhazya orientalis*, or *Teucrium fruticosum* in an open border. I should be very grateful for any information as to the proper soil for these shrubs, their hardiness, &c. Another blue-flowered shrub I should like to grow is the dwarf *Erinacea pungenis*, figured in *THE GARDEN* of the 5th ult. as growing in Canon Ellacombe's garden at Bitton, but I have never come across the name in any catalogue. It must be a most desirable thing, and, if so common in Spain, ought to be procurable. Its particular habitat in Spain does not appear to be recorded. I went through a good many miles of exceedingly spiky and prickly shrubs within twenty miles of Gibraltar during the four years I rode about the country and hunted with the Calpé hounds, but I cannot recollect having seen a blue flower on any of these shrubs. In Nicholson's "Dictionary of Gardening" it is described (under its old name *Anthyllis erinacea*) as having bluish-purple flowers, and as being "hardy in a dry, sunny position on the rockery," so I fear it will hardly do for my border. So much for the blue shrubs. Perennials and annuals are far easier to deal with, and I do not foresee any great difficulty in filling up the front portions of the section, though it may be a long time before the various shades of colour are properly

arranged. Things I intend to try are *Geranium grandiflorum*, *Mulgediums*, *Dracocephalums*, *Anchusa italica* (the Dropmore variety if possible), *Aconitums*, *Mertensias*, *Myosotis*, and perhaps *Polemonium confertum*, with a few good annuals such as *Phacelia*. I fear *Myositidium nobile* is out of the question. A neighbour who grows it well, with the aid of a frame-light in winter, tells me it will not stand more than 6° of frost. I lost the first plant he kindly gave me, though it was protected with ashes, &c., from frost, and I now always take up a second from the same friendly source and winter it under glass. This want of hardiness is most unfortunate, for it is one of the most beautiful plants in cultivation.

I have not grown *Iris cristata* until the present time, and do not know how it is going to turn out, but it would certainly make a most desirable edging for the blue section, as suggested by Mr. Arnott.

I have quite come round to "G. J.'s" ideas as to the employment of both bulbs and annuals in the colour scheme. There will eventually be no bulbs save Lilies, and I hope to make successful use of suitable annuals in future in all the sections. Annuals are worth the slight amount of trouble necessary for their proper cultivation, but bulbs are rather a nuisance, as either their position must be denoted by unsightly labels, or they run the risk of being chopped up with the spade or uprooted by the fork when a new plant is being put in or an old one moved.

As regards the "superlatively lovely" edging to the cross-path in front of the *Yuccas*, alluded to in my former article, I may mention that the *Yuccas* are set a good way back in the border, with dwarf *Tritomas* in front of them, so I think Mr. Arnott's white Pinks or my own *Daphne Cneorum* would not spoil the general effect, but rather improve it.

To conclude with a few words on another subject connected with the planting of dwarf shrubs, perennials, &c., generally.

When sheltering some of my newly-planted shrubs, such as *Ceanothus*, *Berberis nepalensis*, &c., the other day with evergreen boughs, it suddenly occurred to me to make use of a number of nice bushy young *Yews*, about 6 feet high, standing idle in a nursery bed. I dug these up with good roots, and carefully planted them among the more delicate shrubs so as to form an effective screen against the north and east winds. They take up very little room, and I propose to keep moving them about from one spot to another every autumn until their services are no longer required. With care they ought to keep growing a bit; at any rate, they should last several years. A few small superfluous Laurels and Box trees have also been enlisted on the nursing staff. I cannot tell if this idea is new or not, but it may be of use to some who are or have been planting tender things in open borders.

So far we have had a mild winter, but in this climate of "samples" we never know what to expect—at any rate, before the end of May.  
Yalding, Kent. S. G. R.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 16.—Société Française d'Horticulture de Londres Annual Dinner at the Imperial Restaurant, Strand.

January 21.—Gardeners' Royal Benevolent Institution Annual General Meeting at the Covent Garden Hotel, 3 p.m.; Annual Supper, Covent Garden Hotel, Mr. Leonard Sutton in the chair, 6 p.m.

**The Royal Gardeners' Orphan Fund.**—Sir Trevor Lawrence, Bart., K.C.V.O., President of the Royal Horticultural Society, has kindly consented to preside at the next annual festival of this fund, which will take place at the Hotel Cecil on Tuesday, May 17.

**The Gardeners' Royal Benevolent Institution.**—I am asking for a little space in THE GARDEN to make an appeal to its readers on behalf of this excellent and most deserving charity. My aim is to arouse on its behalf the active sympathies of a larger number of persons who take a great interest in their gardens and in the work of the gardener. On Thursday, the 21st inst., the sixty-fifth annual meeting of the institution is to take place in the Covent Garden Hotel at 3 p.m., at which the treasurer, Mr. Harry J. Veitch, will preside. On that occasion twelve pensioners are to be elected on the fund. The distressing part of the proceeding is that there are fifty-three applicants. Of these applicants two are eighty years of age, twenty-four are seventy years of age and upwards, while twenty-five are sixty years of age and upwards; all incapable of work, depending upon scanty savings, the assistance of relatives, or the charity of friends. Every application is more or less a touching tale of woe; some must be in dire poverty. Two applicants—men under ordinary circumstances in the prime of life, one fifty-one years of age, the other fifty-three—are incurably paralysed and altogether incapacitated. Only think that of these fifty-three applicants forty-one must be unsuccessful! Think of the misery of unrealised hopes on the part of those who fail to be elected! The annual subscription is one guinea, but in every locality there is some gardener who, interested in the institution, would gladly constitute himself a centre to receive the smallest contributions and so make up a few guineas, by means of which votes could be secured at future elections. When addressing the members of the Ealing Gardeners' Society a few evenings ago I appealed to the members to subscribe each one penny per week, which could be collected by the secretary, and when the sum of a guinea was reached one of their number might be nominated as a guinea subscriber and have the privilege of giving five votes at the next election. There are many gardeners' societies about the country, and could they be induced to take an interest in the institution in the way I have mentioned, I am sure a considerable amount of most acceptable support would be forthcoming. The secretary of the institution is Mr. George J. Ingram, 175, Victoria Street, London, S.W.—R. DEAN.

**The proposed gardeners' association.**—What is wanted are ready offers of practical assistance, whereas the chief offers to hand have been in the form of advice, very much of which is amusing; very little is of practical value. The report of the first meeting of gardeners held to consider the subject you kindly published at page 31, and it includes mention of a small committee that was formed to give the subject closer consideration and to report on the result. It may interest readers of THE GARDEN who have been concerned with the proposals to learn that this small committee has met and thoroughly threshed out the matter, and the recommendations made I have been requested to embody in the form of a report to be read to the larger meeting, which will be held at the Hotel Windsor, by kind permission, on the afternoon of February 23, at 2 p.m. I hope it will be possible to furnish a copy of that report to THE GARDEN, so that all readers may learn of the decision at which the committee have arrived. May I suggest that if anyone has a really earnest desire to see a National Gardeners' Association established, rather than writing to the papers and indulging in very unpractical criticisms they should attend the meeting in question, which will be an entirely open one, and there offer suggestions that would be helpful and practical. Unless there be manifested a much stronger desire for such an association than is now shown, and the reasons for its existence be made far more clear and imperative, I gravely doubt whether anyone's desires are likely to be gratified. With such a body entire union is an essential element to success.—A. D.

**Indian Agricultural College.**—The plans for Government buildings at Pusa, where the Phipps Laboratory and Agricultural College are to be created and an experimental farm started, are now nearly ready. The laboratory, for the establishment of which Mr. Phipps gives £20,000, will be perfectly equipped with the latest modern appliances. Pusa will become a centre of agricultural research, experiment, and instruction, and a great future of usefulness lies before it.

**Royal Botanic Society: Preliminary arrangements for 1904.**—Exhibitions of plants and flowers will be held on Wednesdays, March 16, April 13, May 11, June 8, July 6, October 12, and November 9. Exhibition of *Rhododendrons*.—By Messrs. Waterer, Bagshot, Surrey, daily during June. Admission: Wednesdays, 2s. 6d.; Mondays and Saturdays, Is., or by Fellows' orders. Exhibition of hardy flowers.—By Messrs. Barr and Sons, Covent Garden, during June. Admission: Wednesdays, 2s. 6d.; Mondays and Saturdays, Is., or by Fellows' orders. Musical promenades.—Every Wednesday afternoon from June 15 to July 27 inclusive. The Guards' band from 3.30 to 6 o'clock. Admission by Fellows' orders. Illuminated evening fêtes.—Wednesday evenings from June 15 to July 27. The Guards' band from 8 to 11 p.m. Admission tickets, 2s. 6d. each, or Fellows' packets of ten, 10s. Botanical lectures.—Friday afternoons at 4 o'clock, May, June, and July. Admission by Fellows' orders. General Meetings.—For election of new Fellows, scientific papers, &c., fourth Friday in the month at 4.30 p.m.; anniversary meeting, Wednesday, August 10, at 1 p.m.

**Buddleia asiatica.**—In your issue of the 9th inst. (page vii.) there is a note sent by my friend Mr. W. E. Gumbleton about *Buddleia asiatica*, and in it occur some errors that ought to be corrected. He says that I submitted some flowers of this plant for examination to the botanical authorities of the *Muséum d'Histoire Naturelle*, Paris. This is incorrect. I said in the *Revue Horticole* (1901, page 37) that I had been unable to identify the plant with any one of the 150 described species of the genus *Buddleia*, and therefore I provisionally named the plant *B. Columbia*, adding "unless someone could find it described elsewhere." As soon as I found that my plant was the *Buddleia asiatica* of Loureiro I restored the true name in the said journal (1903 page 562). This species seems difficult to identify, probably owing to its numerous synonyms. These synonyms I give in alphabetical order: *Buddleia acuminatissima*, Blume; *B. Columbia*, And.; *B. densiflora*, Blume; *B. discolor*, Roth; *B. interrupta*, Buch.—Ham; *B. lanceolata*, Heyne; *B. Neemda*, Buch.—Ham; *B. salicina*, Lam.; *B. serrulata*, Roth; *B. subserrata*, Don; *B. sundaica*, Blume, as far as I know, up to the present date.—ED. ANDRÉ, Editor *Revue Horticole*, Paris.

**What France exports to England.** According to the statistics for 1902, France exported to England 33,000,000 of Strawberries, Cherries, Plums, Pears, Gooseberries, Almonds, Apricots, Peaches, Grapes, Nuts (fresh), Chestnuts, and Walnuts; 28,000,000 of vegetables (fresh, salted, or preserved), of which more than 15,000,000 were Potatoes; 8,000,000 of flowers; and 2,000,000 of greenhouse plants, bulbs, and flower seeds.

**British exhibits at the St. Louis Exhibition.**—The extensive preparations for the reception of horticultural exhibits have progressed rapidly. The first arrivals from England have just been announced, and among them are bulbs and hardy plants from Messrs. Sutton and Sons, Reading; James Carter and Co., High Holborn; Phlox from Mr. John Forbes, Hawick; and Dahlias from Messrs. J. Cheal and Sons, Crawley. Other houses, for instance, Messrs. Kelway and Son and Messrs. Cannell and Sons, have already arranged their exhibits. *Le Jardin* says that Mr. W. Goldring, who has charge of the general arrangements, has a representative at St. Louis, who receives the horticultural exhibits on their arrival, superintends their arrangement, and looks after their welfare.



**Akebia quinata fruiting.**—In THE GARDEN, November 7, Mr. S. Arnott announced the fruiting of *Akebia lobata* in England at Newstead Abbey. This ornamental climber fruited also last summer in a garden at Haarlem. It stands at the north-east side of a closed verandah in a sandy soil.—LEONARD A. SPRENGER, *Haarlem*.

**Moschosma riparium.**—This South African Labiate deserves to be grown more largely than it is at the present time, as it is an extremely useful plant for the cool greenhouse during the dull winter months. The creamy white flowers, with dark anthers, are produced in long, branched, terminal cymes, and will last in flower in good condition for three weeks or more if grown in a cool house. Although this plant has been in cultivation for some few years, it is only recently that really well-grown examples have been seen, the plant being well shown by Messrs. James Veitch and Sons, also by Messrs. H. Cannell and Sons at a recent meeting of the Royal Horticultural Society, when an award of merit was very deservedly gained. The chief factor in the successful cultivation of this plant is to give it a light, airy position in a cool, well ventilated house, and not over hot, trusting rather to frequent applications of liquid manure water when the pots are well filled with roots. Strong and mature growths are then produced, which flower far more satisfactorily than when the plants are grown in a warmer temperature and the wood is not properly ripened.—W. HALES, *Physic Garden, Chelsea*.

**Cymbidium tracyanum, Bradshaw's variety.**—In a recent issue of THE GARDEN mention is made of Mr. Briggs Bury's variety of this *Cymbidium* as being "the darkest form in existence." But the two flowers now before the writer, forwarded by Mr. J. Bradshaw of The Grange, Southgate, prove that, if not quite so large in size, they are at least as dark in colour, with a decidedly larger and more showy labellum. This huge tongue-like petal, with its rich orange-crimson coloured spots, is a conspicuous contrast to the dark chocolate-red and yellow-tinged sepals and petals, and a large inflorescence of flowers would be a magnificent object. Mr. Bradshaw may be congratulated on having one of the darkest and finest of all known varieties of *Cymbidium tracyanum*.—JOSEPH GODSEFF.

**Schubertia grandiflora.**—This fine Brazilian climber deserves all that has been said in its favour (THE GARDEN, January 2, page 3), but it has one fatal drawback, which is seldom or never mentioned when reference is made to it, namely, the peculiarly strong and obnoxious odour of its stems and leaves. This may not be very noticeable, it is true, except in handling the plant or flowers, or in accidentally brushing past it; but it is sufficiently unpleasant to make it quite intolerable to many people. This is probably the reason why so lovely a plant has not become more popular, for there is no question as to its beauty, nor of the delicious fragrance of its flowers, apart from the stems and foliage. There is no difficulty, moreover, in its cultivation. The name *Schubertia*, it may be noted, has given place to *Arauja*, or *Araujia*, as it may be found spelt in both ways in the "Kew Hand Lists."—K. L. D.

**Tillandsia carinata.**—Bromeliads are not favourites in this country, yet many of them are, from a foliage point of view, very handsome, while the flowers are, in numerous instances, remarkable for their bright hues and distinct appearance. The rich purple *Tillandsia Lindenii*, before now noted in THE GARDEN, is still in flower, and to that an addition comes in the species at the head of this note—*T. carinata*. This is a pretty, small growing kind, the entire plant—flower-spike and all—reaching a height only of about a foot. The light green recurving leaves are arranged in a vase-like manner, and at all seasons are very pleasing; but of course the plants are far more

attractive when they are in bloom. The flower-stem, which well overtops the foliage, is furnished on its upper part with two opposite rows of comparatively large boat-shaped bracts, deep bright crimson, shaded with purple at the base, which gradually merges into the orange of the upper part. The flowers themselves are yellow, but they do not protrude far beyond the bracts, and, in addition, they do not last long, therefore these bracts must be regarded as the showiest portion of the inflorescence. It is of easy culture if potted in fibrous peat and sand, given good drainage, and ample water during the growing season. Though the above is now regarded as the correct name this plant was at one time known as *Vriesia brachystachys*, and as such is still more generally met with in gardens and nurseries.—H. P.

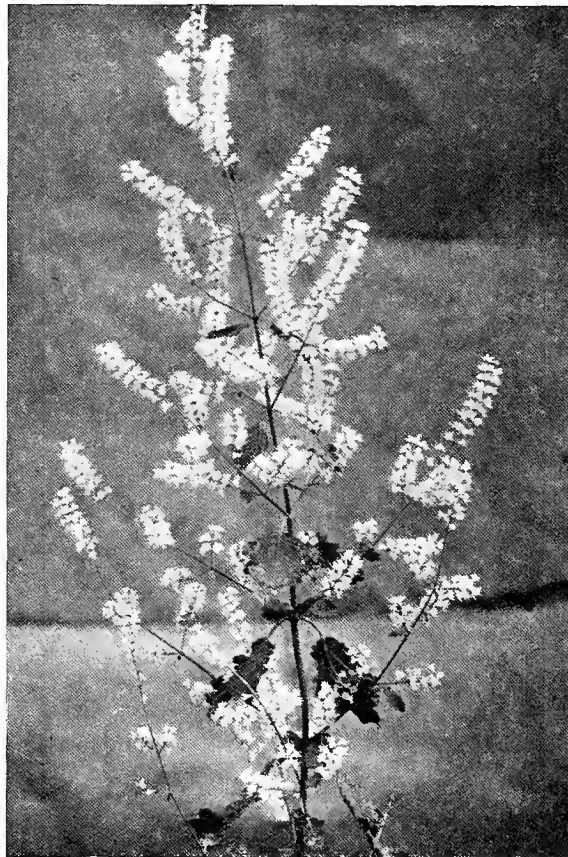
**Rainfall in a Hampshire district.** The rainfall for 1903 has been so excessively high in this district that I am forwarding the grand total for the year, which I hope you may find space

for 10:35 inches of rain. On two occasions during this month, viz., the 12th and 27th, 1.89 inches and 1.28 inches fell respectively during the twenty-four hours.—G. ELLWOOD, *Swanmore Gardens, Bishop's Waltham*.

**"How Dundee could be beautified."**—Under the above title the *Dundee People's Journal* gives prominence to a most interesting article by "An Expert," containing a number of practical suggestions for the beautifying of Dundee by means of the planting of trees, the provision of window boxes, and the improvement of the smaller open spaces. The writer gives a rather gloomy picture of Dundee as it is, and those who have visited this busy manufacturing city will not be disposed to question his opinion. As he says, it is admitted that Dundee cannot be transformed into a garden city, but a great deal can be done to improve it, and it is to be hoped that the suggestions of "An Expert" will receive the support of the authorities, and that the coming summer will see an improvement in the look of the bustling city. A brief quotation from the conclusion of the article will show the spirit in which it is written, and will meet with the approbation of the many readers of THE GARDEN who favour the garden city schemes as well as the improvement of existing cities on the same lines. "An Expert" thus concludes: "It is well known that there are in and around Dundee many odd corners, sombre, obscure, and unlovely, to which trees and flowers would act as harbingers of better things, better surroundings, and, above all, possibly better homes. There is a good time coming; though coming slowly, it is coming surely, and an evidence of this is shown in the earnest progressive spirit of the time." The same article also speaks in appreciative terms of the improvements at present being made at Seabraes under the burgh engineer and the superintendent of parks. It is a sign that the suggestions of the writer of the article referred to will be well received by the city authorities.

**Winter-flowering Begonias.**

The far-reaching effects of the introduction of three or four species of tuberous-rooted *Begonias* from the Andean region of South America, which took place in the sixties, has had a parallel in the case of *Begonia socotrana*, which was discovered and brought to this country in 1880. There is, however, this important difference, that whereas the South American kinds have given us a large and valuable race of summer-flowering plants, *B. socotrana* has played a great part in the production of an entirely new section, whose great value consists in the fact that they are at their best during the dull days of winter. When *B. socotrana* was first introduced it was from its distinct character, showy blossoms, and the season at which they were borne, regarded as likely to prove of great value to the hybridist, a prediction now fully borne out, though it was necessary to wait three or four years for the first start. This was the variety John Heal, obtained by fertilising the flowers of *B. socotrana* with the pollen of a tuberous-rooted variety—Viscountess Doneraile. Since this success there has been no turning back, and the groups of this section of *Begonia* which Messrs. Veitch put up regularly at the Drill Hall during the late autumn and early winter, are the admiration of everyone, and the cause of their cultivation being taken up by gardeners in general. Their popularity can be readily understood, as they are not at all difficult to cultivate, and the flowers are particularly bright and cheerful. The varieties enumerated by Messrs. Veitch are Ensign, Ideala, John Heal, Julius, Mrs. Heal, Winter Cheer, and Winter Perfection. They are all good, but for a display perhaps Winter Cheer is the equal of any. The above, however, do not occupy the first place among *socotrana* hybrids, that being filled by the now universally-grown *Gloire de Lorraine*, obtained



SHOOT OF MOSCHOSMA RIPARIUM.

for in your valuable paper. The time of observation here is 9 a.m. daily for the twenty-four hours preceding. The diameter of gauge is 8 inches, and 390 feet above sea level:—

Month.	Total depth in inches.	Greatest fall in 24 hours.		No. of days on which rain fell.
		Depth.	Date.	
January ..	2.48 ..	.63 ..	4th ..	17
February ..	1.68 ..	.53 ..	27th ..	11
March ..	3.39 ..	.68 ..	17th ..	20
April ..	2.81 ..	.94 ..	28th ..	10
May ..	3.55 ..	1.15 ..	2nd ..	13
June ..	2.64 ..	.59 ..	10th ..	9
July ..	3.52 ..	1.04 ..	26th ..	13
August ..	3.79 ..	.74 ..	12th ..	16
September ..	2.41 ..	.60 ..	5th ..	13
October ..	10.35 ..	1.89 ..	12th ..	28
November ..	2.57 ..	.83 ..	28th ..	15
December ..	3.92 ..	.82 ..	10th ..	14
Total ..	43.11 ..			179

It will be observed in the above table that rain fell on 179 days. The month of October was responsible for twenty-eight wet days, and registering

by M. Lemoine of Nancy by the intercrossing of *B. socotrana* and the South African *B. Dregei*. This variety was distributed in 1893, but it was two or three years before its merits were generally recognised, since which time it is grown to such an extent as to suffer by repetition. There are some forms of this, and of them Turnford Hall, with blush-coloured blossoms, is about the best. An interesting member of this group (*Agatha*) has been raised by Messrs. Veitch by employing instead of *B. Dregei* the creamy white *Moonlight*, a hybrid raised many years since by the late Colonel Trevor Clarke, but which had almost dropped out of cultivation till rescued some three or four years ago. Colonel Clarke will be remembered as the raiser of a summer-flowering variety (*Weltoniensis*) which a quarter of a century ago was largely grown and a popular market plant.—H. P.

## TREES AND SHRUBS.

### COLLETIA CRUCIATA.

**P**ERHAPS better known as *Colletia bictoniensis* is this curious shrub. Just now it is in bloom, and although the flowers are small they are very interesting, for one is somewhat surprised to find that such a forbidding plant as the prickly *Colletia* produces flowers at all. In this case they are small, pendulous, and very like miniature *Lily-of-the-Valley* bells. When taken into a warm room they emit a pleasing fragrance somewhat suggestive of *Aniseed*. True leaves are very few and usually short lived; they are simple, opposite, entire, very small, and deciduous. The shrub, which rarely grows more than 4 feet high, is composed of branches of alternately-opposite flattened spines, which are sharp pointed, the whole forming an impenetrable mass.

Cuttings of half-ripened shoots will root readily in sandy soil if placed under a hand-light in a cool house. The plants should be well rooted before being placed in their permanent position, which should be well sheltered and not too near a path. A well-drained, light soil suits it best. Although considered to be only half-hardy, established specimens will stand 16° or 18° Fahr. of frost with a light covering over the roots. During a mild autumn it frequently makes a short second growth; this, of course, suffers from frost, and should be removed in the spring.

North Cornwall.

A. C. BARTLETT.

### AROMATIC SHRUBS.

(Continued from page 12.)

THE Thyme of the Riviera is not the small creeping Thyme of our downs, but is a small shrub of great beauty, looking at a short distance very like a dwarf *Heath*. It is strictly a Mediterranean plant, but can easily be grown anywhere, and has long had a place in English kitchen gardens. If we could grow it as it grows in the Riviera it would deserve a better place in our gardens. The *Pistacia*, of which there are two kinds, is abundant in the Cap Martin woods, and is a very ornamental shrub, with bright leaves and curious winged petioles, but the scent of the leaves and wood is not pleasant. Though strictly a Mediterranean shrub, it can be grown in England; but though I have had it in my garden for many years I never saw a flower on it. It has in France a great reputation as the best firewood, burning very brightly to the last ash. It is closely allied to the *Sumach*.

It is time, however, to come to the aromatic character of these shrubs. They have in their flowers and on their leaves or bark very distinct odours. The flowers are sweet scented to attract the necessary insects. The scent of the leaves and bark are for the purposes of protection. To us the scent may be pleasant, but we know very little as to what is agreeable or otherwise to sheep, goats, or other browsing animals; we only know that certain plants are not eaten by them, and it is fair to suppose that they are let alone because they are unpleasant or not good for their food. What is pleasant to us may be very unpleasant to them;

we like the Thyme, but the Riviera Thyme is untouched by sheep and goats; and though the flowers of our little Thyme may be eaten by sheep, they do not generally touch the leaves or branches; if they did we should see the pretty carpets torn and pulled out of the ground, and I do not remember to have ever seen that. When we once realise that even the minutest part of every plant has its work to do in the perfecting of the flower we have a clue to many of the mysteries of plant life. The work done by strong-scented leaves and bark is protection, and well they do their work. In all of them the strong scent resides in glands, which are very visible in the leaves of the Myrtle, and still more so in the leaves and in the bark of the *Eucalyptus*, which is of the Myrtle family, and is now becoming quite naturalised in the Riviera. These glands do not give out their scent unless they are broken, and they are easily broken by wind, rain, or any passing man or beast. You may walk through the woods of Cap Martin and detect no aromatic scent at all, but gather any of those I have named and it is at once revealed; if you even touch the Rue the scent will remain on your hands or gloves for hours.

But Nature has many other ways of protecting flowers than by scents or flavours that are unpleasant to browsing animals, and we may say that every plant is provided with its own separate protection, each protection being suited to the special enemy. The woods of Cap Martin give good examples. The grand shrubby *Euphorbias*, which are such an ornament on the rocks near the sea, are well protected by the nasty milky juice which is so abundant in them, and there are three plants worth mentioning, very ornamental and protected by their thorns—the *Asparagus acutifolius*, *Smilax aspera*, and *Calycotome spinosa*. The *Asparagus* is quite hardy in England, and evergreen; the *Smilax* is the same, but the *Calycotome*, which is the handsomest, is rather tender. All three are well protected by thorns, especially the *Calycotome*, whose beautiful Broom-like flowers are protected by thorns which would defy almost any animal; and all three not only protect themselves, but give protection to other plants. I suppose that throughout the vegetable kingdom thorns are the chief protectors, and it is worth noting that Nature does not waste her means of protection; she may protect by bitter leaves, or by nasty juices, or by thorns, but does not use them wastefully; if she protects by scents she does not by thorns. I only can recollect one instance to the contrary. Our own Sweet Briar has both scented leaves and thorns, and I know of no other plant with such a double protection to the flowers; and perhaps it is not a double protection, it is quite possible that the scented leaves were even an attraction, and so the further protection of thorns was necessary. This double provision for the Sweet Briar did not escape Shakespeare:

"Briars shall have leaves as well as thorns,  
And be as sweet as sharp,"

i.e., sweet leaves and sharp thorns. But how great a protection thorns are may be seen in the *Cactuses*, which grow in dry places, and each *Cactus* carries its own ample reservoir of water; and if it were not for the formidable array of thorns these reservoirs would soon be broken into and emptied. The most beautiful instance of thorn protection, and one that fully proves the intention of thorns, is to be seen in the great American *Aloe* (*Agave americana*), now fully naturalised through the Riviera. In the whole vegetable world no plant has more rigid leaves, each leaf being made more rigid by being very much thickened at the base, and ending with a long and hard thorn. Such leaves seem almost immovable, but there comes a time in the life of the plant when these stiff ungainly leaves move themselves. That time comes when the plant is preparing to flower, which does not occur till it is from ten to twenty years old. Then these stiff leaves raise themselves and bend over the coming flower-shoot, and form an almost impenetrable fence, but one that the flower can get through and rise sometimes to a height of 20 feet or 30 feet. The young flower is probably very sweet, for if destroyed there comes in its place a plentiful supply

of the sweet intoxicating pulque; but if allowed to grow the matter which would form the pulque is drawn up the long flower-stem, and the flower is fully formed and the seeds are ripened; and then the thorny leaves have done their work, and they all die.

My paper is already too long, or I should like to have touched on many more points of interest belonging to the Riviera plants.

H. N. E., in *The Pilot*.

## THE FLOWER GARDEN.

### THE PINK.

**H**ALF a century ago the garden Pink was one of the most popular flowers in the florist's calendar. In my early gardening days I was acquainted with many Pink fanciers. The two most prominent were the late Mr. Charles Turner of Slough and the late Mr. John Keynes of Salisbury. Mr. Keynes was better known as a *Dahlia* grower, in the days when single-flowered *Dahlias*, if they happened to appear amongst the seedlings, were thrown on the rubbish heap, and when the *Cactus* and *Pompon Dahlias* were unknown to cultivation. The self-coloured and the fancy *Dahlias* were greatly improved by Mr. Turner and Mr. Keynes, not to mention others. I remember Mr. Keynes stating at one of our meetings that he had known six Pink shows to be held in Salisbury in one year. There were many raisers of Pinks in those days, and nothing was thought of any value that was not perfectly laced. When Thomas Hogg of Paddington published his sixth edition of "Florists' Flowers" in 1839, he wrote a long article on the culture of the Pink. He was a celebrated florist in his time, but he states "that I am neither gardener nor florist professionally, but that I commenced the cultivation of flowers in the first instance with a view to amuse a depressed state of mind, and reinvigorate a still more sickly state of body." He was entirely successful, as the fine flowers he exhibited and the excellent papers he wrote on his favourite flowers abundantly testify. Hogg gives a list of 154 varieties, after discarding the names of many of the old ones. These 154 varieties have the raisers names attached, and these number ninety-five. Think of it!—ninety-five florists, all in friendly rivalry in endeavouring to improve the garden Pink, and all working to obtain one distinct form of it. This precious object had a pure white ground, a pink, red, or dark red centre, with a lacing near the margin of each petal of a similar colour. The old florists were most exacting in their tastes, and rigidly excluded all others. I raise a few hundreds of seedlings annually, and there may be three or four, or perhaps, if I am in luck, half-a-dozen of these laced varieties; amongst the remaining hundreds there may be a score or more that have reverted to the single form, many more semi-double, and a great many very beautiful indeed as garden flowers. The seedlings flower so profusely, I have had 300 or more blooms on a single plant.

To get good strong plants sow the seed in February or early in March. The seedlings appear in a week or so (they are, of course, sown in heat), and should be pricked out in boxes, and gradually inured to the open air to be planted out a foot apart in beds of rich soil about the last week in May or early in June. They are not expected to flower until the next year after sowing the seed, and a selection can be made from them to be propa-

gated and flowered the following season. There are no Pink shows now, nor a special National Pink Society. In 1839 there were ninety-five raisers of Pinks known to us; there were six shows of Pinks in one town in one year. Friends, brothers, florists, what a fall is here! A Daffodil Society; even the Sweet Pea has a society all to itself. The Auricula, the Rose, the Carnation, the Dahlia, and the Chrysanthemum hold high festival through their special societies, but there seems no room for the Pink. I do not regret this, for it would be dragged from its quiet nook, where it is tended by loving hands. Choice specimens are culled and placed in glass vases or delicate china ones, and the perfume is always delicious. Carnations are sometimes sadly lacking in perfume, but never a Pink. For perfume the Carnation is not in it as compared to the Pink; besides, the latter is a more easily grown plant, and prefers out of doors culture to any treatment under glass. I have grown the Pink since I could cultivate anything, and would feel a great want if I had not a bed of Pinks to flower every year. No glass houses, frames, or even hand-lights are necessary. They can be propagated either by pipings or layers, and this can be done a month earlier than the Carnations can be layered.

I believe, upon the whole, it is better to propagate the stock of plants from layers. If from slips or "pipings," these can be taken off in June and they will form roots in a shady place out of doors, or, better, in a hand-light. They may be planted out in beds of rich, deep soil in September or October; if in the flowering bed they may be a foot apart, but it is better to plant the layers or pipings out about 4 inches asunder until they have formed plenty of roots and have gathered strength. Such plants may be put out in the open garden where they are to flower in October. The treatment they require is much the same as that for Carnations, except that they may be planted much closer together. Some attention is required during the winter; the ground must be kept free from weeds, and the surface may be lightly stirred occasionally. If rabbits or hares get into the garden almost the first plants they will visit are the Pinks and Carnations. Slugs and the leather-coated grub will also eat the leaves and sadly disfigure the plants. Wireworms are also destructive. The leather-coated grub also burrows in the soil, but, unlike the wireworm, which eats into the stem under ground, it devours the leaves. Sometimes, owing to over-feeding, it will remain at the base of the plant. When the Pinks have made some growth in April, it is a good plan to give a surface dressing with decayed stable manure, and when dry weather sets in water copiously once or twice a week.

The quantity of water required and the frequency of applying it will depend greatly on

the nature of the soil. If the soil is heavy and water does not pass away freely, it might not be required often or at all. On the other hand, if the soil is light, over gravel, the maximum of water may be needed. Neat sticks should be used to keep the flowers from the ground. Very little gardening skill is needed to grow Pinks.

All that is necessary is good garden soil, well aerated before planting, the ground between the plants to be kept free from weeds. The layering may be done when the plants are in flower, or after blooming time is over. The slips are also in the best condition to take off when the plants are in flower. In dry seasons seed may be saved from plants in the open garden, but in wet, cold seasons

service annually. I have been asked if this Mule Pink is still in existence. I do not know, but I doubt it. I grow a Pink named Napoleon III., which is evidently a cross between a Sweet William and a Pink, as Fairchild's also was. The Carnation and Sweet William, as well as the Pink, have been cross-fertilised. They are of the same genus, but are distinct specifically.

The best laeod Pinks known to me at present are Amy, Bueno Retiro, Brackleen, Capo di Monti, Chantilly, Clara, Empress of India, Excellent, Godfrey, Harry Hooper, Lufra, Minerva, Mrs. Pomeroy, Mrs. Welsh, Mrs. Waites, Morna, Old Chelsea, Reliance, Rainbow, Sarah, The Rector, Wedgwood, and Zurich. Of others than laeod Pinks, the best are Albino,



SUMMER FLOWERS IN THE GARDEN OF MR. S. FRYETT, LEWISHAM.

it will not ripen even in the south of England. I cultivated the Pink for many years in Scotland, but was never able to save any seed there. The capsules should be dried and the seed may be taken out in two weeks after gathering the capsules. I may add that one of the Pinks often enquired about is the Mule Pink. One of the earliest, if not the earliest, hybrids raised in England was a Mule Pink.

We are indebted for it to an amateur of Hoxton, a Mr. Fairchild. This must have been raised about the middle of the seventeenth century or earlier, as Fairchild died in 1667. I believe this worthy man must have instituted the first flower service, as he left a sum of money to the preacher of his parish that he might hold a flower

Anne Boleyn, Clove Pink, Her Majesty, Homer, Paddington, and Oriel. J. DOUGLAS.

A GARDEN NEAR LONDON.

We often hear of the difficulties of growing plants in and around London. Yet these are often more imaginary than real. During the past summer and autumn I had opportunities of visiting a good many suburban gardens, and found in most instances that both flowers and fruit could be well grown. The illustration represents a portion of the gardens at Holme-hurst, Lewisham, the residence of S. Fryett, Esq., who is an enthusiast, and in Mr. T. G. Goldring, his gardener, he has a most capable man to carry out his ideas. Mr. Goldring is a man who always seems to know what to plant, and the

garden is kept bright and interesting for most of the year. For summer bedding Fuchsias are favourites, and in sheltered spots these flower continuously throughout the season, even the double varieties, such as Ballet Girl, do well. Tuberous Begonias also keep up a bright show. Single Petunias planted round standard Roses are a great success. Zonal Pelargoniums are used, but not too extensively. Marguerites associated with *Salvia splendens* on a dry sunny border make a fine effect. The side borders are planted with a good selection of herbaceous plants—*Rudbeckias*, *Phlox* (perennial), *Gypsophila*, *Pyrethrums*, with *Gladiolus* standing up in showy clumps. A good selection of flowering and evergreen shrubs is also to be seen. Altogether the garden may be regarded as showing conclusively that with careful management a suburban garden may vie with many of those in more favoured districts. Mr. Goldring does not confine himself to the open garden; the conservatory is always kept gay. Among his favourites, of course, is the *Chrysanthemum*. *Cannas* are well flowered, also *Gloxinias* and Ivy-leaved *Pelargoniums*, although the convenience under glass is limited. Mr. Goldring always proves one of the most successful exhibitors at the local flower shows. A. HEMSLEY.

## NOTES ON HARDY PLANTS

### GALANTHUS FOSTERI.

It seems only yesterday Mr. James Allen read his paper on Snowdrops before the Royal Horticultural Society on March 10, 1891, which paper was published in *THE GARDEN* of September 19 of that year. Among the species described which were then but little known was *Galanthus Fosteri*, of which now, as then, rather conflicting opinions have been expressed. At the time Mr. Allen wrote his paper *G. Fosteri* had been so recently introduced that a critical opinion could not be expressed about it, for it was only first brought from Amasia in 1889 by Professor Foster (now Sir Michael Foster), in whose honour it was named by Mr. Baker. Thus the experience recorded by Mr. Allen was a short one, his plants having first bloomed in 1890, from bulbs planted in January of the same year. It will be well, however, to recall what our great Snowdrop specialist said of *G. Fosteri* at that time. "For one thing," he says, "it did not come up to my expectations; but I think it is scarcely fair to pass judgment on it before it has grown in our gardens for some four or five years, so as to develop its true character." Then he goes on to say: "This seems to be the most sportive of all the *Galanthi* as to size, form, and marking of the flowers. From the comparatively few bulbs I have already bloomed, I have had flowers with petals of every imaginable shape, some showing points of great beauty, and others quite the reverse. We must be patient and weed out unsparingly, and then in a few years we shall be proud of *G. Fosteri*. The markings on the inner petals are very similar to those of *G. Elwesii*, but the foliage is quite different, being broad and somewhat blunt, and in shape and colour like the leaves of *Scilla sibirica*." I have quoted Mr. Allen at some length, because he has put so clearly his opinion of *G. Fosteri* at that time, and because his judgment is one which has been entirely corroborated by the experience of more than a decade, with the addition of our having discovered that it is not everywhere that this Snowdrop will grow.

Since the date of Mr. Allen's paper *Galanthus Fosteri* has been rather largely imported, but it is to be feared that the proportion of inferior flowers has largely predominated in the importations, until some have thought that the opinion of our experienced friend Mr. Max Leichtlin, who regarded it as the "King of Snowdrops," was for once at fault. It is the process of selection which

has been absent, for there are some good forms; while, on the other hand, there are some which are very poor. The first form I procured, which I have still, is a poor one indeed, and I have often thought of weeding it out. But there are better ones, and it is unfortunate that the slow increase of this Snowdrop is against the multiplication of these good forms. Then the question of longevity has puzzled some. Whether it is that our winters are against it, or, it may be, that the soil is unsuitable, it is to be regretted that *G. Fosteri* has but a short life in many gardens. Here it has survived a long time, and I am inclined to attribute this mainly to the light sandy soil, and also to the partial shade in which I have grown it. Were it not that I have known of so many losses, I would not have doubted its hardiness and permanency. It must be remembered in connexion with this, however, that it has been thought to be a hybrid of *G. Elwesii* and *G. latifolius*. The latter is not a good doer with us, and even the former, in some of its forms at least, is not so enduring as one would have liked. I need say nothing further about its appearance, as the quotation from Mr. Allen, in which he speaks of the markings of the flowers being like those of *G. Elwesii*, and of the resemblance of the leaves to those of *Scilla sibirica*, fully indicates the general appearance of the plant. Its bulbs are fairly large, but I have seen none which bear out the information given to Mr. Allen, that they were in some cases about the size of a good-sized *Narcissus* in their native habitats.

*Carsethorn, by Dumfries, N.B.* S. ARNOTT.

### NYPHÆAS OF THE ODORATA GROUP.

I HAVE been for many years much interested in hardy Water Lilies, being—I think I may say—one of the pioneers of growing them in small tanks, as an article in *THE GARDEN* of February 3, 1896, will bear witness. My little tank—it is only 18 feet by 6 feet—has been imitated by at least two gardeners of widespread repute throughout Great Britain, and I have grown, with a fair meed of success, a considerable number of varieties; but I cannot keep for any length of time the varieties of the *Odorata* section, and would be very grateful if some growers of wider experience than mine would tell us how they have fared, for most others with whom I have had the opportunity of exchanging views have had much the same story to tell as myself. The plants do fairly on arrival, better the second, and perhaps the third year, leading one to think them well established, and after that they begin to go down the hill, breaking up into numerous small weak crowns, that flower badly or not at all, and another year or two sees the end of them.

My pool is of concrete, about 18 inches deep; the plants are in pots or boxes according to size. There is no flow through, the loss by evaporation being made up from the house supply, and the water being fully exposed to the sun becomes very warm, sometimes 70° to 75° after a hot July day.

The *Nymphæas* of the *Marliacea* section have all done well for many years. *N. M. albida*, *carnea*, *rosea*, *chromatella*, *gladstoniana*, also *Laydekeri rosea*, *pygmæa*, and *N. p. Helvola*, &c. Of the *odorata* forms I have had *exquisita rubra*, *sulphurea grandiflora*, *caroliniana*, and the type. All these have blossomed once or oftener, but none are now left. *N. Ellisii* and *Frœbeli* are more recent additions, but so far doing well. *N. tuberosa* *Richardsoni* is extremely good, but I fear it has gone the way of its relatives the *odoratas*. I am disposed to try some of these again, but am anxious for any information obtainable before doing so.

GREENWOOD PIM.

### CARDAMINE RHOMBOIDEA PURPUREA.

ANY green thing that shows signs of vigorous life at this season is a source of pleasure to a plant lover. Of course, it is easy to surround ourselves with all that heart could wish in wealth of leaf and blossom where ample accommodation exists, but many have to be content with only a small plot of garden ground, a tiny unheated greenhouse,

may, it may be, merely a porch or a window-sill, in which to satisfy the craving for an environment of growing plants. Any such may be reminded that the double Cuckoo-flower (*C. rhomboidea purpurea*) is one of the prettiest things to propagate during these dull winter months. It is a humble little plant, not much more than 6 inches high when in flower, in spite of its monstrous long name, but no one in early spring to whom it is not familiar passes by its dressy little cushions on the edge of the border without some word of admiration, and it is unique in this respect, that it wakes up just when most of its neighbours are thinking of going to sleep. Gather a few of its pinnate leaves in late November or even December, and peg down the slender stems, or snip off the pairs of leaflets if you like it better, dotting them by their half-inch length of stalk over the surface of a pan, keeping them fairly moist, and watch the result. Little silver threads will soon run out from the axils of the leaflets and find their way into the damp earth. Presently tiny bulbils will make their appearance, which quickly develop into buds, and before long you will be charmed to find a whole posse of bright green miniature plants springing up from every joint and even from the larger nerves of the dark fleshy leaflets. Nothing can be prettier than to see these brave little plantlings starting into life on their own account, rejoicing in the shelter of a roof over their heads, but afraid of neither frost nor cold so long as they are protected from keen winds, which in the open ground soon shrivels up too precocious efforts. Examine a plant in the border and you will find plenty of the little nurslings nestling in the bosom of the mother plant, but none on the outer and more exposed leaves.

This little double *Cardamine*, with its somewhat prim and Quaker-like spikes of pale purple flowers, which come about the same time or perhaps a little earlier than the Cuckoo-flower of the meadows, is scarcely so well known as it deserves to be. There are double-flowered forms of the common Cuckoo-flower (*C. pratensis*) which may often be found growing wild in the spring, some of the best of which are quite worth transferring to the garden by the same easy mode of propagation, but these are merely tinted white, and not distinctly mauve, or of that tone of colour which, nowadays, is mis-called *heliotrope*, besides being taller and looser in growth than the dainty little gem now under consideration. Whether autumn-springing plants such as these, which are at present in a cold greenhouse, will be strong enough to flower this spring remains as yet an open question, but propagation by leaf-buds in the manner described may be carried out at almost any season when leaves are to be found, and may chance to be more convenient than by division of the root. The late wet season suited the plants well, for the neat tufts remained fresh and green throughout the year. In a dry spot it is apt to disappear altogether during the heat of summer, but springs again with autumn rains and coolness. Belonging naturally to the marsh, it should be planted by preference in moist ground, where it flourishes exceedingly and increases without becoming too troublesome. But it is as a pot plant for early flowering in the alpine house or any modest unheated structure that attention may be directed to this lowly but pretty and interesting as well as hardy American perennial. K. L. D.

## THE LILIES.

(Continued from page 23.)

*L. DALHANSONI* (*L. Martagon dalmaticum* × *Hansonii*).—A lovely richly-coloured hybrid Lily, whose flowers are very stout and massive and of a rich mahogany tint. Bulbs white, conical, the scales arranged as in *L. Martagon*. Naturally small. Stems 4 feet to 6 feet high, dark purple below, greenish above, producing a few roots from their bases. Leaves in three to six whorls, a few scattered, broadly lance-shaped, dark green, 5 inches to 6 inches long.

Flowers ten to twenty in an elegant spike, each 3 inches across, not recurving to the extent of *L. Martagon*, dark mahogany-purple, marbled on the inner surface with bronzy yellow. The spikes are compact, yet elegant, and the surfaces of the petals are very lustrous. Rare in cultivation, but exceptionally easy to grow. Flowers in July.

**CULTURE AND USES** as for the European Martagons. This plant grows well in any plant border where the ordinary *L. Martagon* thrives. Our strongest colonies are growing in a thin tangle of roots from a small fence with ordinary border plants. The subsoil is clay, and in lighter soils this Lily would require all the moisture it could get and greater exposure, the protective plants being only of use in withdrawing excessive moisture from a naturally wet soil.

*L. elegans* (Thunb.).—A pretty dwarf Lily from the mountains of Japan, long cultivated by Japanese gardeners, who have produced some wonderful varieties, of which about twenty are grown in this country. Their colour schemes and form of flower are remarkably diversified. The whole group is very easy to grow, and their dwarf stature, vivid colourings, exceedingly large flowers, and accommodating habits render them very valuable for every garden use. Bulbs generally compound, white, small, miniatures of *L. umbellatum*. Stems 12 inches high, deeply channelled, stout, green, woolly above, rooting

freely from their bases. Leaves about twenty, lance-shaped, 3 inches long, often very broad near the inflorescences, glossy green, woolly when very young. Flowers woolly in a bud state, one to three in number, orange-red, erect, 4 inches long and wide, the petals spoon-shaped and slightly spotted below, the spots merging into two ridges which traverse the length of the claw. Flowers in July. Common in cultivation.

*Var. Alice Wilson*.—A charming variety now almost lost to cultivation. Stems a foot high, bearing one to three broad-petalled lemon-yellow flowers 6 inches across, spotted low down with chocolate. Always a rare plant, it is now quite unobtainable in even small quantities, the rarest and handsomest of its group. Flowers in July.

*Var. alternans*.—See var. *brevifolium*.

*Var. alutaceum* (Baker and Dyer).—A dwarf early Lily, whose flowers and growth are free from any woolly covering, the stems and leaves both stout and short. Flowers one to three, narrow-petalled, each 6 inches across, rich apricot, tinted yellowish near the tips, spotted black below, and irregularly flushed silvery grey externally. They are generally as long as the stems, and do not expand widely. June-July. Common in cultivation.

*Var. alutaceum grandiflorum* is a massive petalled form, whose flowers are much longer than the stems, and they expand more fully. Colour scheme similar. *Alutaceum* is found under an infinity of names in Continental gardens.

*Var. aurantiacum* (Hort.).—See var. *bicolor* (Moore), var. *aurantiacum verum*, the True Light Orange *L. elegans*.—A very pretty and striking form, with stems 18 inches high, glabrous, and the flowers expand widely, coloured a soft lemon yellow, with delicate salmon shading; three to six are borne on each stem, and they closely resemble var. *venustum*. Flowers in July. Common in cultivation.

*Var. aureo nigromaculatum*.—See var. *alutaceum*.

*Var. armenaicum* (Baker and Dyer), the Beautiful *L. elegans*.—A tall variety, resembling *L. Batemanniae* in many of its more important characters. The bulbs are large; stems 1 foot to 2 feet high; leaves linear, arching, and slightly twisted. Flowers in a compact spike of four to six, soft pale orange, the surfaces glistening, and the petals open quite wide and reflex at the tips.

*Var. macranthum* is a larger cultivated form, with flowers 6 inches across and 6 inches to 8 inches to the umbel, coloured

a richer orange. Flowers in mid-July. A lovely form. In our judgment the best and most beautiful of its group. Common in cultivation.

G. B. MALLETT.

(To be continued.)

LILIAM AURATUM.

I SEND you rather a pretty picture of *Lilium auratum*. The photograph was taken in the south of Scotland in November.

*Skipton-in-Craven*.

W. D.

THE ROSE GARDEN.

NEW AND LITTLE-KNOWN DECORATIVE ROSES.

TEA-SCENTED.

**A**LBERT PATEL.—A delightful Rose, with quite a small flower, but of perfect form, and the colour rich bronzy red with yellow shading. The growth is sturdy, and quite stiff for a Tea; in fact, this variety seems to be a near approach to the Hybrid Teas. It is the result of a cross between *Ma Capucine* and *Beauté Inconstante*.

*Chameleon*.—A fine grower, much resembling *Anna Olivier*; the flowers are large, rosy flesh in colour, with a distinct blotch of deep rosy crimson at the base of the outer petals. This blotch is somewhat variable, hence doubtless its name.

*Comtesse Olivier de Lorgeril*.—One of those mixed colours of which *Souvenir de Lady Ashburton* is typical. It is a lovely Rose, one that is sure to please.

*Comtesse Sophy Torby*.—In the way of *Souvenir de William Robinson*, the red outer petals being very conspicuous against the coppery yellow and peach tints of the inner petals.

*Dainty*.—The elegant clusters of this Rose, borne erect upon fine stems, make it a very conspicuous variety in the garden, and the dainty little primrose-yellow buds edged with carmine are most charming.

*Mme. Antoine Mari*.—One of the best, if not the best, decorative Rose of 1902. The buds are of beautiful shape, each one heavily shaded with rose on a white ground. The growth is compact and vigorous. A worthy companion to *G. Nabonnand*, *Corallina*, *General Schablikine*, &c.

*Mme. Jean Dupuy*.—A fine flower for exhibition, yet sufficiently free to be a decorative variety too. The general effect is rosy yellow, but at times it resembles *Mme. Lambert*.

*Mme. Louis Poncet*.—One of those charmingly-tinted Roses of the *Mme. Eugene Resal* type; in fact, it seems to me to be as much a China Rose as the latter, but perhaps I should say *Mme. E. Resal* is more of a Tea-scented variety. The colour of *Mme. L. Poncet* is *nasturtium-red*, with a coppery shading. An excellent bedder.

*Morning Glow*.—The prevailing tint of this splendid bedder is orange red, with other shades combined. The growth is first-rate, and it must soon take a prominent position among decorative Roses.

*Peace*.—When I say this is supposed to be a lemon-white sport of *G. Nabonnand*, I can give it no higher recommendation, and it should be largely planted for massing where the parent has been found to succeed.

*Mme. Berkeley*.—A real beauty to all who admire these large-petalled semi-double Roses. The colour is creamy white, tinted flesh-pink. Of the same style of flower as *Yvonne Gravier*, but with the growth a little more erect.

*Préfet Montell*.—In the way of *Marie Van Houtte*, but the growth is more compact. This will doubtless make a splendid bedding Rose.

*Salmonea*.—A very distinct Rose, the salmon-coloured centre, with bordering of bright crimson, gives the variety a charming appearance.



LILIAM AURATUM IN THE SOUTH OF SCOTLAND.  
(This photograph was taken in November of last year.)

*Sulphurea*.—Flowers sulphur-yellow, of perfect shape; rather more than semi-double, growth grand, foliage rich coppery red. A really excellent variety, and a great advance upon Isabella Sprunt.

*Vicomtesse R. de Savigny*.—Here again we have a peculiar yet beautiful blending of colour. The centres are pale yellow, with the outer rows of petals a dark rose. Very free blooming; form excellent.

#### POLYANTHA ROSES.

*Aschenbrüdel*.—A charming miniature Rose, likely to be in much request. Colours, peach with orange shading.

*Katherina Teimet*.—Large clusters of snowy white flowers. An improvement on Paquerette. Lovely as a pot plant or for bedding.

*Mme. N. Levasseur*.—Not so bright as it has been represented, but certainly a long way towards realising that desirable

*Comtesse de Cayla*.—This will probably surpass all the other varieties of this race, which began with Laurette Messimy. The colours are rich and striking, nasturtium-red, orange and coppery yellow, with a carmine shading.

#### RUGOSA.

*Conrad F. Meyer*.—A grand Rose for any purpose—hedge,

imagine the latter are by far in the majority, and these varieties should certainly receive attention from those who make Rose growing a study.

PHILOMEL.

## NEW AND RARE PLANTS.

### CROTON TURNFORDIENSIS.

SHOWN in the accompanying illustration is one of the most distinct varieties of the Croton exhibited for some time. When shown by Messrs. Thomas Rochford and Sons, Turnford Hall Nurseries, Broxbourne, before the Royal Horticultural Society, on December 15, 1903, the floral committee gave it an award of merit. This new Croton is stated to be the result of a cross between the old *C. variegatus* and *C. Thomsoni*, the influence of the latter variety being apparent in the broad leaves.

It reminds one in growth and general appearance of *C. Delight*, *C. Hawkeri*, &c., yet it is quite distinct from any by reason of the rich golden, almost orange, yellow in the centre of the leaf, which has a broad margin of deep olive green. It has the hardy character of *C. variegatus*, and therefore may be perfectly well grown in a fairly low temperature. Croton Turnfordiensis should prove to be a most useful decorative plant, its bright, distinct colour and good habit make it all the decorator could desire. The accompanying illustration shows just the top of a shoot, and the leaves are sketched natural size, the lower ones, of course, are larger.

illustration shows just the top of a shoot, and the leaves are sketched natural size, the lower ones, of course, are larger.



CROTON TURNFORDIENSIS.

(The drawing was made from the top of the plant.)

acquisition, a dwarf perpetual-flowering Crimson Rambler.

*Philippine Lambert*.—In the way of Cecile Brunner, but quite distinct, and one worth growing.

*Schneewitchen*.—Fine pyramidal clusters of yellowish-white flowers. The numerous yellow stamens somewhat spoil the effect.

#### CHINA OR MONTHLY ROSES.

*Arctusa*.—This may be a yellow Queen Mab, as it resembles this charming variety in growth.

standard, pillar, anywhere where a vigorous free bloomer is required. Then what a delightful soft shade of pink are its blossoms, and fragrant, too.

*Mercedès* is, for a Rugosa, a lovely colour, pale rosy pink, outer petals white. Distinct and fine.

The above-named Roses are all really good, and no one will regret planting them. I maintain they will, as novelties in garden Roses, be far more serviceable to those who do not exhibit than many of the much-praised novelties in exhibitors' Roses. After all, there are only two classes of Rose growers, those that exhibit and those who do not, and I

### FROM COPSE TO COTTAGE.

WHERE a dwelling adjoins woodland it is a pleasant task to work out ways of bringing together the nearer ground and the wood, so that they meet easily and seem to come together without jolt or jar or incongruity. The grassy path in the picture branches out of a strip of turf on the south side of the cottage; the lawn stretching out farther and wider in its western face. This grass path is one of several that lead into the copse, which slopes upwards towards the south. To the right is a mound, to the left a slight hollow. In this are Sedums,



FROM COPSE TO COTTAGE.

Kalmias, and dwarf Rhododendrons, with handsome foliage of Rodgersia, Saxifraga peltata, and hardy Ferns. On the bank to the right are Junipers, Andromeda floribunda, Skimmias, and again dwarf Rhododendrons, these being myrtifolium and the alpine kinds. Large lumps of sandstone show here and there among the flowering bushes in stratified ranges as if they were cropping naturally out of the ground. In the foreground is a rough stone seat and some steps leading to the wooded ground above.

## THE INDOOR GARDEN.

### NEGLECTED GREENHOUSE PLANTS.

IF gardeners fully realised the great value of such a plant as Jacobinia chrysostephana, which bears heads of orange-coloured tubular flowers at the duldest period of the year, *i.e.*, during December and January, they would never fail to have a good number in their glass houses. It is indispensable at this time of year, not only for the decoration of the intermediate house, but it may also be used successfully for house decoration. In this respect it is the best of the Justicias or Jacobinias, for the flowers last well. It is astonishing how long plants in flower will keep fresh and bright providing the weather is not very foggy—they will remain in good condition for five or six weeks. The dark green leaves of this Jacobinia contrast well with the bright flowers whose colour seems almost glowing when seen on a dull December day. One reason why everyone who values brightly coloured winter-blooming plants should grow Jacobinia chrysostephana is that it is of quite easy culture. Plants to flower in the winter may be readily raised from cuttings inserted in May. They root without difficulty if placed in

small pots filled with sandy soil, which are put in a warm house. They should be stopped once so as to give two shoots, two heads of bloom may then be expected the following winter. The same plants grown on again the next year, if stopped, would have at least four shoots, and each of these crowned with the brilliant flowers makes a splendid plant. This Jacobinia does not require stove temperature; in fact, it does better in an intermediate one, the growths made under these conditions are stronger and flower better. The group of plants shown by Messrs. James Veitch at the Drill Hall, on the 5th inst., made a brilliant bit of colour, and fully demonstrated the great value of this winter-blooming plant.

The old *Justicia carnea* with heads of pink flowers is also well worth growing for winter blooming. It *i.e.* ds the same treatment as advised for *J. chrysostephana*. Cuttings inserted in May will produce flowering plants by December, and if cut back and grown on for another season they will, under cool treatment—in fact they may be grown

in frames during the summer months—give an abundance of flowers the following winter and spring. A gardener of long standing says: "I remember some thirty years ago this plant was much grown. The old plants were cut back about July and placed in a warm pit to break. When growth commenced they were shaken out, potted, and returned to the pit. As the days shortened they were placed in a vinery just started, and here they gave an enormous amount of flower in the months of February and March." *Peristrophe speciosa* (*Justicia speciosa*) is another plant whose value is under-estimated. In my opinion it is second to few winter-blooming plants for conservatory decoration. The flowers do not last so long and the plants will not stand so much moving about with impunity as *J. chrysostephana*, but if groups are arranged in the greenhouse and left undisturbed it is always admired. If wanted especially

for table decoration, small plants in 5-inch or 6-inch pots may be had in the autumn; if larger and later blooming plants are required they must be repotted into larger pots. The colour of the flower is uncommon, and therefore welcome; they may be, perhaps, best described as purple, although a reddish tinge is noticeable throughout. *Euphorbia pulcherrima* is not heard of so frequently as it used to be, yet for flowers at Christmas and early in the new year it is a plant not lightly to be ignored. It is equally useful as a pot plant or when the long growths are cut. The cut sprays are extremely effective for room decoration, the bunches of bright red bracts showing conspicuously against the rich green foliage. Cuttings should be inserted in spring as soon as

good ones can be obtained. The young plants may be grown in pits during the summer, but as soon as the nights begin to get cold they must be removed to a warmer house. When the bracts begin to show colour they benefit by increased heat and as much light as possible. If the stems are cut for house decoration, it is recommended to dip them in hot water before using; this drives the sap up towards the bracts, and thus prevents its loss. A. P. H.

## BOOKS.

### Some lesser known Japan Trees and Shrubs.\*—

We have received from Mr. James Veitch a little booklet, containing the paper read by him before the Royal Horticultural Society last year. It is freely illustrated, and two of the illustrations we reproduce, one of *Vitis megaphylla*, and the other of *Spiraea Henryi*. Of the former the author writes: "*Vitis megaphylla* (the wonderful-leaved Vine) is remarkable in having bipinnate leaves, in this respect resembling the allied genus *Leea*. The leaflets are petiolate, 2 inches to 4 inches in length, ovate, with dentate margins." Of the *Spiraea* Mr. Veitch says: "The genus *Spiraea* is represented by many showy species, of which *Spiraea Henryi* is probably the best. It is a shrubby plant belonging to the *Spiraea canescens* group, furnished with ovate leaves, 1½ inches to 1½ inches long by half an inch to three-quarters of an inch broad, serrated along the apical margin of the leaf, slightly pilose on the upper surface, and densely so underneath. The flowers are produced in dense corymbs terminating dwarf shoots along the whole length of the branches. They are small individually, pure white, and very showy in the mass." We need not refer further to this pamphlet, as the lecture was published in *THE GARDEN* last year.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

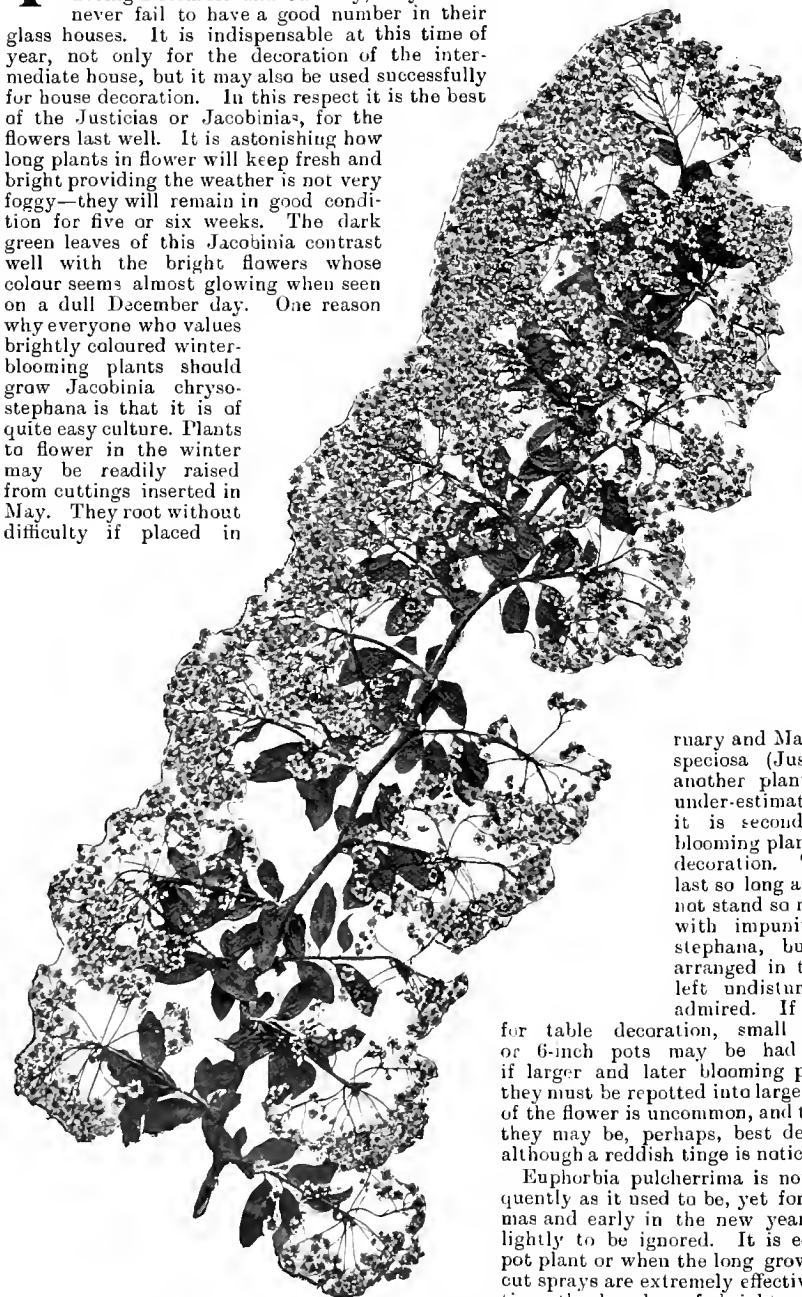
### FRUIT TREE PRUNING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In his reply to my criticism Mr. Thomas has confined himself to side issues, and does not deal with my contention, which I now repeat, *viz.*: "That the knife applied to the main leads never yet assisted in the production of fruit buds on a tree that has not reached its prime." On this, as far as I am concerned, the whole matter rests. Again I wrote: "Hard pruning . . . is misused as a means of forcing them (the trees) to produce fruit buds, a thing that hard pruning . . . never did and never will do," *i.e.*, that hard pruning is no factor in the production of fruit spurs. Mr. Thomas perverts this last sentence when he misquotes me as saying that trees pruned on this system "never did and never will bear fruit," a very different thing. I say that the fruit buds on hard-pruned trees come with age *in spite of*, and not by the aid of, hard pruning. I granted that pruning was necessary to confine trees to a limited space and to attain a certain shape or shapes, but in these days, when the selection of stocks is so carefully carried out in the best nurseries, half the old growers' difficulties in the matter of dwarfing have disappeared, while the cropping properties have been greatly enhanced.

Again, Mr. Thomas attributes to me a sentence which I did not write, *viz.*: "Every bud from tip to base . . . will break and develop a shoot." This is so foreign to my views and experience that I must repeat what I really said on the matter: "The result in the second year of abstention from shortening will be the production of *fruit spurs* or buds almost throughout the entire length of the leading shoots." Not a word about the side shoots there, though earlier I did the very thing I am

\* "Some Lesser Known Japan Trees and Shrubs, and Some Recently Introduced Trees and Shrubs from Central China." By James H. Veitch.



*SPIRÆA HENRYI* (Hemsl.). Flowers small, white, densely borne along the whole length of the previous year's growth.



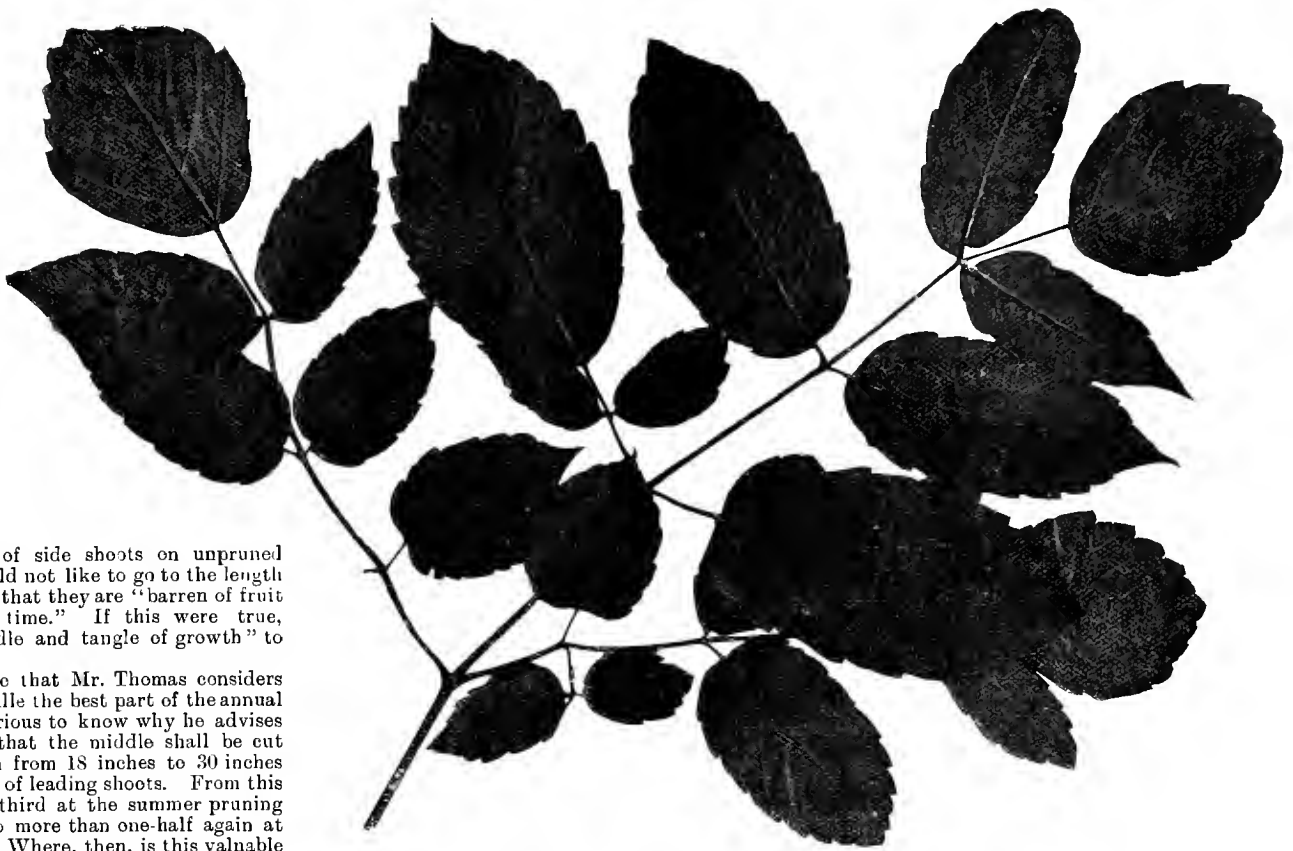
accused of not doing, viz., I recommended the removal of surplus side shoots "that would be mischievous in the future." On the extension system properly carried out these side shoots do not occur to one quarter the number that appear on the same length of main stem on a hard-pruned tree; their place is largely taken by fruit spurs, and they give very little trouble. Mr. Thomas evidently understands this dearth of side shoots on unpruned branches, but I should not like to go to the length of saying, as he does, that they are "barren of fruit and foliage for all time." If this were true, where is my "muddle and tangle of growth" to come from?

I am pleased to see that Mr. Thomas considers the base and the middle the best part of the annual growth, but I am curious to know why he advises in his former notes that the middle shall be cut away. We are given from 18 inches to 30 inches as the average length of leading shoots. From this we have to take one-third at the summer pruning and from one-third to more than one-half again at the winter pruning. Where, then, is this valuable middle portion? In a tidy garden it has, of course, gone to the fire-heap.

I must again assert that no properly planted or properly managed dwarf tree will make long, spurless shoots that break only at the apex. Proper treatment at the roots, both at planting time and after, combined with the use of proper stocks, will give leading growths of moderate length that in their second season leave nothing to be desired in the way of fruit buds, and will supply also sufficient wood growth to furnish the tree if wanted, or to be cut out if not wanted for this purpose. Mr. Thomas is quite right to condemn long, barren growths, but his remedy is not the one most conducive to fruitful wood.

As an illustration of his theories Mr. Thomas chooses to place orchard house trees on a parallel with those grown outside. There is no such parallel; the conditions are quite different. Orchard house trees are grown generally in a very confined root-run, are very frequently root-pruned, and make under the pinching system (which differs very largely from hard winter pruning) and with the aid of a glass roof just the right kind of wood for fruit buds. The confinement in their case hastens maturity. A pot Apple or Pear tree that permits one-third of its growth to be cut or pinched off in August, and still has sufficient left to allow a further cutting back to 9 inches, or even 6 inches, would be an example of orchard house culture that would not, I think, be pleasing to the grower. Fortunately, after the first year or two of extension training, growth on a properly managed outdoor tree is not nearly so rapid as Mr. Thomas infers. By adopting the extension principle splendid fruitful trees may be built up in half the time required by hard-pruned trees covering the same ground. It appears to me that the aim in this country should always be to counteract grossness by inducing as best we can an early ripening of growths of moderate length, and I assume that there were fruitful trees in the world long before pruning was thought of.

I am aware of the fine fruit that may be grown in limited quantity on hard-pruned trees, and I have never found fault with them in this discussion, but only with the promulgation of the idea that hard pruning induces fruit bud formation. I hope



VITIS MEGAPHYLLA (Diels and Gilg). Leaflets  $4\frac{1}{2}$  inches long by  $2\frac{3}{4}$  inches broad.

it is not necessary for me to take a journey to the Channel Isles to see illustrations of good dwarf tree culture. If it be so, it speaks well for the rapid progress of extension training at home and the hold it has gained on growers. It was my fortune for many years to have charge of a considerable number of trees grown on both principles, and careful observation of these has helped to build up my practice as an extension trainer wherever possible, and I may add that I worked many of these trees from the graft to the time of fruiting and after. Turning to Mr. Thomas' illustration, supposing the child, who is on or about the level of the top of a six or seven-tier wire fence, to be 3 feet high, the lowest branch must be 5 feet from the ground—a bad beginning for a dwarf—and the tree apparently little less than 20 feet high and nearly as broad. Yet we are told that by following the method of pruning indicated three or four specimens of good size can be grown on the same area of land as would be taken by one tree grown on the "let-alone" (by which Mr. Thomas designates the "extension") principle. Plenty of extension trained trees cover more space and are fruitful years before the tree illustrated could have reached half its age and size. Many orchard trees in their prime reach no higher, though they may cover more space, but why should we be concerned to grow more trees on a given area than is necessary to cover it? Is it to get more variety? If so, the reason is a bad one from the market grower's point of view. Can anyone look at the disposition and character of the branches in Mr. Thomas' tree, crowded in parts and thin elsewhere, and call it even a tolerable representation of a dwarf tree? The summer pruning, too, has apparently been forgotten. In his earlier article we are told by Mr. Thomas to leave at the summer pruning side shoots with seven leaves, and at the winter pruning to cut these to within two or three buds of their base . . . "but if the summer pruning of these trees has been properly attended to there will be very little winter pruning required." Which does he mean? Surely the side shoot pruning is the greater part of the business, and as all these shoots,

if pruned in the first instance to seven leaves as advised, have to be again shortened, I fail to see the lessened labour at the winter pruning.

J. C. TALLACK.

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

#### MELONS.

**W**HERE Melon houses are at command, with plenty of top and bottom-heat, good fruits can be obtained by the first week in May. It is waste of time to attempt to grow very early Melons without plenty of heat and moisture. Thoroughly clean the house and make up a good bed of leaves over the hot-water pipes. I prefer 12-inch pots for the earliest batch, and to sow two seeds in these pots. Stronger plants are obtained that will grow better at this season than if sown in 3-inch pots. Provide drainage, and three parts fill the pots with fairly strong loam; add lime rubble, wood ashes, and a little bone-meal; make firm, and keep the soil highest in the centre of the pot. Plunge the pots close together in the leaves, standing them on an inverted pot. Keep them near the glass, sow two seeds in each pot when the soil is well warmed through, removing the weakest plant later. If planting out is preferred, the same compost placed in ridge form, sowing the seed in position, will answer equally well. There are so many varieties of Melons now that each grower has his own favourite variety. The scarlet-fleshed varieties are generally earlier, and two good early sorts are Frogmore Scarlet and Turner's Scarlet Gem. Select the first fruits that show, and, if grown in pots on the single cordon system, allow two fruits to a plant. Stop the shoots second leaf above the fruit, and pinch out all side shoots. Maintain a night temperature of 68°, allowing a rise of 10° or 15° from sun-heat. Secure a moist,

growing atmosphere by frequent dampings of the paths and beds.

#### PEACH HOUSES.

Peaches which are set should have the temperature raised to 55° at night. The fruits should be thinned early if set thickly, leaving the largest and best placed. Disbudding should be performed at different times, finally leaving one shoot at the base and a leader. No more shoots should be allowed to remain than are necessary to secure a good crop of fruit and to furnish any vacant space. Trees in bloom should have a temperature of about 50° at night. Go over the flowers daily with a camel's-hair pencil when the temperature is highest. Give the trees a constant circulation of air, and discontinue syringing the trees until the fruits are set, damping the paths and borders only. Keep a sharp look out for fly, and fumigate at first appearance.

#### STRAWBERRIES.

Continue to fertilise the flowers daily, and give plenty of air on all favourable occasions. As soon as the fruits are set give weak liquid manure water, and syringe freely to prevent red spider. A drier atmosphere must be kept later; it will improve both the flavour and colour of the fruit. Introduce later batches of plants at intervals. Suspended shelves in Peach houses are useful for these, as the syringe can be plied well around them. Examine them carefully before flowering for fly, and fumigate if necessary.

#### FIGS.

Trees in pots should be kept in a steady bottom-heat of 75° to 80°. Thin the fruits early, and top-dress with a rich compost. Keep the roots in a moist condition by watering with liquid manure, syringing the plants twice daily. Clean and top-dress later houses, using plenty of old lime rubble, and make ready for starting. F. JORDAN.

*Impney Gardens, Droitwich.*

#### FLOWER GARDEN.

It is important that vacant beds be well and deeply dug. This will not only provide a good root-run, but during a dry summer the occupants of beds or borders so treated will withstand drought far better than if the digging is but lightly done. Where the beds are of intricate shapes a watchful eye must be kept on the corners and points, for if the work is not thorough these portions will be unsatisfactory throughout the summer. The nature of the dressing must be determined by the class of plant it is intended to grow in the beds. If any addition to these beds is considered necessary some old soil from the potting-sheds will give better results than manure. Tuberos Begonias revel in a rich deeply-worked soil. The beds for such gross feeders as *Lobelia cardinalis*, *Cannas*, *Dahlias*, &c., will require liberal additions of well-rotted manure, and a sprinkling of bone-meal worked in with the soil will be found beneficial.

#### HERBACEOUS BORDERS.

As weather permits these should receive attention. All dead stalks, unnecessary stakes, &c., should be cleared away, remembering that the stems of such things as *Michaelmas Daisies* make capital stakes for some plants that require but a slight support. We have had such an abnormal rainfall, and the growth of some plants has been so luxuriant, that in many cases the borders will be found to be considerably impoverished, and it will be necessary to fork in an extra quantity of dressing. Many strong growers will require to be restricted; where practicable, the whole clump should be lifted, and the necessary portions for replanting taken off from the outside of the mass. Replanting should be done firmly, and, if frost is anticipated, it will be advisable to apply a light mulching.

#### BEDDING PLANTS.

All decaying leaves must be cleared away. In picking over *Pelargoniums* (*Geraniums*) the stalk of any decaying leaf should be removed with a slight downward jerk, as the decay is frequently transmitted to the stems by decaying leaf-stalks. If the stock of *Dahlias* or *Cannas* is short these roots should be divided, potted, or boxed, and

placed in moderate heat. Seeds of *Cannas*, *Grevillea robusta*, *Begonia*, *Cordyline australis*, and kindred plants, if sown now and placed in a brisk bottom-heat, will produce plants fit for this year's summer bedding. *Grevillea* seeds should be sown edgewise; the hard *Canna* seeds will germinate quicker if the outer covering of the seed is carefully chipped with a knife or filed. If preferred, soaking in hot water for a couple of days will soften the shell. The minute seeds of *Begonia* must be but thinly covered.

Carefully press down with the hands any *Carnations* that have been lifted by frost. Fill up from the reserve all blanks in the beds of such as *Wallflower*, *Silene*, *Polyanthus*, *Myosotis*, &c.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

#### KITCHEN GARDEN.

At the time of writing the weather is such as to put a stop to all work in the kitchen garden. Attention may now be turned to the raising of various vegetables that require to be sown under glass.

#### CAULIFLOWERS.

A sowing may now be made in shallow pans or boxes of the earliest varieties. The chief point is to see that as soon as the seedlings come up they are kept always close to the glass. They should be grown in a rather dry house, as the young plants are at this season so liable to damp if the atmosphere is at all moist. They may be pricked out in boxes 2 inches each way, and grown as hardily as possible. Autumn-sown plants wintering in cold frames should be given as much light as possible and abundant air on all occasions, except during severe frost. Early *Erfurt* or *Snowball* are the earliest to come into use, and are therefore most suitable for present sowing.

#### TOMATOES.

A sowing should now be made of some early variety, using well-drained pots filled with light soil. The plants as soon as large enough to handle may be potted singly into small pots, and stood near to the glass in a warm pit.

#### ONIONS.

Where extra large or exhibition roots are desired, seed should now be sown of such sorts as *Ailsa Craig* or *Cranston's Excelsior*. Sow in rich, light soil, making it rather firm. As the seedlings appear, place near to the glass to prevent their becoming drawn and weakly. Prick out into boxes filled with rich soil and grow under glass till early in April, when they may be hardened off and planted out in specially prepared ground.

#### GENERAL REMARKS.

See that protection is given to *Potatoes* and other roots pitted in the open. A quantity sufficient for all requirements should be lifted and stored. If this has not been done, care must be taken to have the pits closed as expeditiously as possible. As long as frost continues push forward all carting or wheeling of manure. Inspect roots that are stored under cover, removing all those that show signs of decay. Get material together for the making of hot-beds, which may consist of fresh stable manure and dried leaves. This will be found a useful method for the forcing of early vegetables, such as *Carrots*, *Turnips*, *Radishes*, &c., where hot-water pits are not available. Supplies of *Rhubarb*, *Seakale*, and other roots for forcing should be lifted and stored in a cool place till required. Protect all roots still in the ground, such as *Parsnips*, *Celery*, &c., by giving a good covering of stable manure. THOMAS HAY.

*Hopetoun House Gardens, N.B.*

#### ORCHIDS.

##### ODONTOGLOSSUM HOUSE.

THE present season is the most critical part of the year in this house, the hard firing needed to maintain the correct temperature, and the inability to give air with freedom, has a tendency to weaken the foliage, making it very susceptible to that peculiar form of damping oftentimes seen on *Odontoglossum* leaves at this season. Judicious firing,

careful airing, and a humid, sweet atmosphere are the most essential points to be observed. Nothing reduces the vitality of

##### ODONTOGLOSSUMS

so quickly as that of being in a house where there is not a free admission of fresh air. I always prefer to put on fire-heat rather than take off all the top air, and it is very seldom our bottom ventilators are ever closed. On all bright days give them a good spray overhead. No plant should be subjected to the strain of flowering that has not made a growth equalling the preceding one, otherwise the strain on the plant will reduce its strength to such a degree that many seasons will be required for it to recuperate. Slugs have a great liking for the young *Odontoglossum* spikes, so to preserve them from their ravages traps should be nightly laid about the house and examined from time to time. A piece of *Orange-peel* is a great attraction to them. Another very good trap is that of laying a pinch of bran on pieces of cardboard. Any now in flower should have their spikes removed soon after expanding, the strain at this season being far greater than when flowering in April and May, when air can be admitted in greater quantities and firing nearly dispensed with.

##### DENDROBIUMS.

The deciduous and semi-deciduous section are now fast developing their flower-buds, and rather more warmth should be afforded them than they have been receiving since the resting period commenced; great harm is often done by allowing the plants to remain too long in their resting quarters. The plants must be given a temperature of not lower than 60° by night, rising to 70° in the day, as soon as the buds show signs of breaking from their sheath. Great discretion should be exercised in watering, only enough to retain the pseudo-bulbs in a plump state will be required for some time yet.

The flowers are of far more value during January and February than later in the season. The following are now in flower, or nearly so, with us: *D. wardianum*, *D. nobile* and its many beautiful varieties, *D. crassinode*, and *D. heterocarpum*. We look to the hybrids to produce our finest show, among them being the practically perpetual-flowering *D. × Curtisii*, *D. × Wigania*, *D. × wiganianum*, *D. × Cybele*, *D. × Melanodiscus*, *D. × schneiderianum*, and *D. × Rolfæ*. To maintain a collection of *Dendrobiums* in vigorous health, it is necessary that a certain number should be annually raised from cuttings. When retying the plants previous to flowering, any back pseudo-bulbs that are not required should be cut out, and on no account should more than two be retained. These should be correctly labelled and laid on a stage for the time being, and from those that have no old pseudo-bulbs, if there is a desire to increase the stock, cut off a bulb and lay on the stago till the season for propagation comes round. By removing the bulb at this season a portion of the sap is absorbed previous to the cutting being made, consequently there is less fear of loss by damping. W. P. BOUND.

*Gatton Park Gardens, Reigate.*

#### INDOOR GARDEN.

##### CROTONS.

So well do these plants lend themselves to every kind of decorative work that they are continually in request, and repeated propagation is necessary. Shoots with highly coloured leaves are the best to select as cuttings; insert these singly in the centre of 2½-inch pots in a compost of equal parts fine loam, leaf-soil, and sand, care being taken to make the soil around the base of the cuttings firm. Afterwards plunge the pots two-thirds of their depth in cocoa fibre in the propagating pit, which keep close; maintain a temperature of 70° to 75°, with abundance of moisture. Single stemmed plants are the best for the purpose, and as through continued use they lose many of their bottom leaves and look unsightly, propagation by ringing is advised as the most expeditious method of rejuvenating the stock.

##### GLOXINIAS.

The flowers of these are always admired, and the earlier in the season they are in evidence the more

they are appreciated. The most convenient method is to place the early bulbs in pans or shallow boxes, amongst cocoa fibre, and afterwards in any house that is kept close, and at a temperature of 60° to 65°. Pot them up singly into suitable sized pots directly they begin to make roots and show signs of starting into growth from the crown of the bulb. For late flowering nothing can be better than plants that are raised from seeds, which should be sown at once. The seeds are extremely small, and require to be sown with great care. A compost that suits them well consists of fine leaf-soil, sand, and cocoa fibre. The pots or pans in which the seeds are to be sown should be carefully and well drained, and the compost, previous to sowing, should be soaked well with water from a fine-rosed can. Scatter the seeds evenly over the surface of the soil, over these sprinkle a very small portion of fine sand, and to settle the seeds in a good bed

should be kept cool by admitting air and occasionally sprinkling the stages, &c. with water during bright and sunny weather. J. P. LEADBETTER.  
*The Gardens, Trauby Croft, Hull.*

## THE KITCHEN GARDEN.

PEA EDWIN BECKETT.

**T**HIS Pea, which received an award of merit at the Royal Horticultural Gardens, Chiswick, also a unanimous vote for a first-class certificate at the Royal Horticultural Society's meeting at the Drill Hall, Westminster, on July 3, 1900, still maintains its

position as one of the very finest Peas in cultivation, viewed either from an exhibition or a utilitarian point of view. Having grown it in considerable quantities during the past four years with the best possible success, a few notes may prove advantageous to any who are about to grow it for the first time. It has proved one of the earliest large wrinkled varieties in cultivation, and when well grown it is hard to beat, either for appearance or quality. One of its chief merits is its thorough hardiness. It has proved itself here to be quite proof against spring frosts and cold, cutting winds, being very much harder than Early Morn, which was one of its parents. It will produce pods from 5½ inches to 6 inches in length, which often contain eleven full-sized Peas, and it is also a great bearer. It is, moreover, a capital variety for growing under glass, either in pots or planted out. If the seed is now sown and brought along gently, good Peas may be looked for by quite the middle of May, as it is a very robust grower. Seed should be sown very thinly, from three to four plants in 8-inch or 10-inch pots being ample, and if extra fine pods are required for show purposes, after a reasonable amount of pods are set, the points of the growth should be pinched out, which will also induce them to

mature much more rapidly. For open air treatment much better results will follow if the seed is sown thinly in boxes, sufficiently so that each individual plant can be lifted out separately and planted in well-prepared trenches, allowing a distance of from 9 inches to 12 inches apart. Three sowings should be made in this way at intervals of a fortnight, after which two or three sowings should be made in the open.

Not only is it particularly well adapted for early supplies, but it is equally good for mid-season use, also for very late work, as it is seldom attacked by mildew. Like many other varieties of Peas, I understand from Messrs. Cutbush, of Highgate, who distributed it, that, owing to the past adverse season, the stock is somewhat

limited, consequently those who are anxious to grow it should lose no time in placing their orders. E. BECKETT.

## EARLY PURITAN POTATO.

**T**HERE has always been a shade of suspicion attached to this early American Potato that it is the white form of Beauty of Hebron only. It came from America just after Beauty of Hebron had, over here, been put into commerce in its white skinned form as Duke of Albany and as White Beauty. Grown side by side, in character and in bloom it was difficult to discern any distinction between Early Puritan and the white sport. We have had it under the above name some fifteen years. Whether distinct or not, it is an excellent first early variety, tubers rather long than round, very white in colour, produced in good abundance, and of nice appearance, tops of moderate height, spreading, flowers white. Of all the Americans that came to us so plentifully during the seventies and eighties of last century, Beauty of Hebron, with its pink skin, has proved to be the best. Now it is materially displaced by the white form and the variety here noticed—Early Puritan. A. D.

## THE FRUIT GARDEN.

### THE NEGLECT OF ORCHARD FRUIT TREES.

**N**EVER have I been quite able to understand why old and long-established orchard fruit trees should be so persistently neglected, and yet it is so. No one has need to travel far in order to see grass orchards in which the heads of the trees represent nothing but thickets of congested growth, while the stems and branches are covered with moss and lichen, as well as being natural harbours for the various insect pests that are detrimental to fruit. If one looks beneath the trees one sees rank grass growing that no animals would eat, but a palpable absence of any kind of manure that would assist the root and branch growth. Strangest of all, this unsatisfactory state of affairs may often be seen where the fruit trees within the garden enclosure receive fair and reasonable attention, and yet neglect is plainly written on the specimens in the orchard without.

It is not easy to fix responsibility for the neglect of orchard trees, and it seems as though one generation begins it and the next one follows it out. Little by little the heads become overcrowded for the sake of the timely hand of the thinner, until at last the work seems to be too stupendous to be taken in hand, and so it goes on till the end of the chapter. Volumes are spoken for the vitality of fruit trees when we consider that even under these neglected conditions they bear crops, but generally speaking the fruit is not good, neither does it win prizes at the show, or fetch the highest price in the market.

While discussing this subject I am reminded that there are many trees, whole orchards of them perhaps in some cases, where neglect has been going on too long, with the result that constitutions are undermined and impaired and the trees are too far gone to be renovated. In such cases remove them or let them end their career in their own way. There should, however, be no haste about it, as from my experience an orchard tree that has been neglected must be in a bad way indeed if it cannot be improved, and when once it is cut down there is no such thing as putting it back. Apart from the specimens about which there hangs a doubt as to whether they are worth spending time and trouble over, there are thousands of orchard fruit trees in full vigour that need timely attention. These are the trees that I particularly call attention to here because the present is a suitable time for taking them in hand.

Overcrowding of branch growth is the common evil amongst established orchard trees, but there are no fixed rules about thinning beyond that it should not be neglected. In fact, the



PEA EDWIN BECKETT.

press on the surface with a piece of wood or anything having a clean, smooth face. The application of water to the soil afterwards will seldom be necessary until germination has taken place, evaporation up to this time being kept in check by covering the seed pots with glass, and afterwards with paper, moss, or anything to exclude the light.

### CHRYSANTHEMUMS.

Cuttings of these that are rooted should immediately be removed from the propagating box and given a position near to the glass, so that light and air may act upon them and keep them dwarf and sturdy. It is advantageous also to shift them early into larger pots before their roots get very much entangled, and in so doing see that the new soil covers well the surface of the old ball. At no time must the plants suffer from lack of moisture to their roots, and their surroundings at all times

thinning out of the branches of a congested standard tree is entirely a matter of judgment, and in this, as in the case of many other operations, two heads are invariably better than one. Armed with a sharp saw one man should take his place among the boughs of the tree while his companion directs operations from beneath. The latter is in a position to see what limbs may be removed without cutting away too much wood, and, this done, the work of removing thin shoots that cross and rub each other may be performed with knife, secateurs, or the Standard Tree Pruner. If the thinning is performed by the combined efforts of a steady hand and a thoughtful brain there will be no merciless slashing and cutting to waste, but the head will be opened to let in the light and air, and reasonable space will be allowed between growths that previously rubbed and interlaced each other. Need I point to the good results? I think not, for they will be seen in the size and quality of the fruit later on, particularly if some attention is also paid to the roots. Poverty is more often the cause of

#### CANKERED TREES AND SCRUBBY FRUITS

than anything else, and orchard trees suffer sadly in this respect. When will owners of orchards realise that established trees may be manured with advantage in winter? Frequently when passing farm and other homesteads one may see streams of rich liquor trickling away to waste from heaps of manure. This liquor would spell new life and renewed vigour to the fruit trees in the orchard if it were poured over the roots, so there never need be any anxiety about what to do with the contents of sewage tanks at a season when it is not wanted for garden crops. The ideal orchard is not that in which rank grass grows up to the stems of the trees, nor that from which a stack of hay is annually obtained. What the trees rejoice in is a short green pasture fed off by sheep which supply manure, though calves and poultry may be given the run of the orchard with advantage.

On heavy soils, which are naturally lacking in lime, a dressing of this useful commodity may be occasionally given with advantage to both the fruit trees and the turf, and failing this I would suggest a surface-dressing of basic slag in the winter. It is a common practice to lime-wash the stems and lower limbs of orchard trees for the purpose of destroying moss growths and insect pests, and though it has the desired effect generally, whitened trees have a ghostly look. For this reason caustic alkali solution may be used instead, and it is safe to say there is no better winter wash for fruit trees. The solution may be prepared by dissolving  $\frac{1}{2}$  lb. of caustic soda and  $\frac{1}{2}$  lb. of pearl ash in five gallons of water along with a handful of soft soap, or it may be obtained ready prepared from any firm making a speciality of insecticides and horticultural sundries. It should be remembered that the solution is strongly caustic, and should therefore be kept off the hands and clothing. It may be applied at any time while the growth is dormant, either by means of a sprayer or with a stiff brush to the stems and lower branches of the trees.

G. H. HOLLINGWORTH.

## MISCELLANEOUS.

### FORMING WOODLAND RIDES.

WE have lately shown how to get rid of some of the worst of our now profitless underwoods, so often worn out, thin, and poor in effect; and now we take up a subject of scarcely less importance, namely, the tracing and making of simple rides through woods. These are necessary for shooting, as well as for the clearing of the woods, driving, hunting, and the pleasure of riding or walking in them, and they are often best dealt with in replanting worn-out underwoods. The older and more picturesque the woodland, the easier the task of making drives pleasant to the eye at all times as well as right for use, though it is not unusual to see many woods without rides of

any value. It is not a hard task to improve them, making them at first a little more open than is common, and cutting away here and there to bring into view good groups of trees, or any helpful incident such as a gully of Ferns. Native plants are often beautiful in masses near these rides, and their effect seen in any clear way in shade is as good as that given by any exotic plants. These are among the right places to have beautiful native plants that may be absent naturally in the district, such as Solomon's Seal, Lily of the Valley, and Willow Herb; also many of our hardy Ferns, introduced again to their home in moist spots in the woods, sorts such as the Royal Fern, robbed by the hawkers from the many spots in the home counties where it once graced the shade with its stately form. Groups of neglected native shrubs might be planted here and there, and native trees not often planted in the usual mixtures, such as the Aspen and Field Maple, may be brought into the wood-fold. In warm and sea-shore districts not often stricken by severe frost we may have groups of Pampas Grass, New Zealand Flax, and hardy Bamboo here and there, but generally through the land it is better to trust to good native things. And, if we go beyond these, let us take care that the shrubs are as hardy as any of our own bushes; it is easy to find them in the shape of hardy Azaleas and Rhododendrons, and the beautiful Mountain Laurel (*Kalmia*), where the soil is not against them. Woodland rides should be not less than 18 feet wide, and it would be no loss from a shooting or any other point of view to make them a few feet more; if a ditch must be made on either side to get rid of water it ought to be in addition to the 18 feet. Their surface should be of the things of the wood—Grass, Moss, dwarf Heather, Thymy turf, brown leaves—according to soil and elevation and other conditions. Among other reasons for this is the fact that such surfaces drink up and keep for use the water that falls, whereas if it falls on bare surfaces our drives and paths may become water-courses. In very hilly ground we may have to cut rides out of the hillside, and make our drive of shale or rough gravel, sand, or peat. In these, or on any surface where we cannot find a protecting carpet of vegetation of any kind, we may have to form little hollows skew-wise across the walk so as to throw the storm-water aside. Woodland drives should want no care beyond the annual "fagging" which the gamekeepers do to remove Briars and all interloping rank growth before shooting begins. But in woods of any beauty coming near the house it may be worth while to rough mow them now and then.

#### SUNNY SPOTS IN WOODS.

Shade is one of the summer charms of the woods; but in case the shade is too great for any of our plants or bushes we have a chance for sun-lovers in glades or open spaces, like those so often seen in natural forests. These are to be sought now and then in our woods for the sake of various things—game, sun, light and shade, and the variety of tree form which is often seen around such openings. The floor of these glades may be of turf, Fern, Ivy, or any mixed plants of the woods, and they give us also a good place for evergreen or other covert—Savin, dwarf Mountain Pine, Partridge Berry, Heaths, either Cornish Heath or the more vigorous forms of Heather, and, if we can spare them, brilliant bushes like Azaleas. Bushes needing sun and warmth might be grouped in such spots, and in districts where the cold does not strike hard, as in a great length of the shore-lands of our islands, other exotics might be tried. But they should be chosen with care, and only sought for some distinct quality. Incidents of the wood itself will often offer the best places for our sunny spots, and there might be small openings, too, in shade, suggested often by wood plants like Gerard's well-named Sturbwort (*Oxalis*) and Primroses. As trees take the place of underwood there is more need for our woodland sun-spots, and also for the drives through the wood being more open and airy, providing always that the too common way of thinning trees in a wood, so that each stands singly, be given up. This is a harmful, though well-established British practice, and against all profit or other good from woodland.

However, without any "fine" planting or attempt at the artistic as regards planting choice shrubs by studying carefully the lines of easiest access, grading in hilly districts, and the convenience of varied labours or pleasures of the woodland, we often gain a very beautiful result. I have made several miles of these rides during the past winter, and no labour has ever given me greater pleasure in the result. Where the ground is level the work consists of merely taking out old and often worn-out stubs. Where it is sloping it is a little more laborious, but even then not difficult. Where the woods have been a little neglected and are rather worn-out it is often easy to get as good a line where the ground is bare of trees as where it is well set with them, and thus avoid felling timber. Sometimes I crept under a great group of Oaks or Beech trees for the sake of their fine stems, and got a better effect than had I avoided them, besides using ground where nothing would grow. In some cases the result was so striking that parts of the woods, before unnoticed, became picturesque even in the opinion of artists, the airy foreground and the fine view along the clearances giving good pictures when the trees happen to come in the right way. Where there is much disturbance of the ground I sow mixed grass seeds as soon as possible afterwards, mainly in April, but also in the summer and autumn. As to game, the airy rides are a distinct improvement in every way, creatures of all sorts getting a chance to air and sun themselves in the clearances. The gamekeepers like it much better, and my woodman tells me that he always finds the best trees near the open rides. So that nothing is lost and everything is gained.—*Flora and Sylva* (November).

## NOTES FROM THE MARKETS.

### A FERN NURSERY.

MR. W. CULL of Lower Edmonton has long been known in the market as one of our most successful growers, Ferns being his speciality, but he only gives attention to the most useful market sorts. Mr. Cull first started at Tottenham, but was compelled for want of space to go further afield, and has now established quite a large nursery at Bury Street, the extreme north of Edmonton. The houses are all built on the most economic and convenient principles, and on a recent visit I found them well filled with Ferns in various stages of growth. *Asplenium biforme* is grown in large quantities, and Mr. Cull's variety is rather different to that found with most growers, being more compact in habit. Though one of the best in  $\frac{1}{2}$ -inch pots, it is even better when grown on to a larger size, and plants in 6-inch pots were a grand sight. *Asplenium Hilli* is also grown, but this is very slow growing; it is one of the best for 3-inch pots. *Pteris cretica major* is grown in larger quantities than any other Fern, and the demand fully warrants this. Mr. Cull says it seems impossible to get over-stocked, for it is a general favourite in all sizes, from small plants in  $\frac{1}{2}$ -inch pots up to large specimens in 6-inch pots, or even larger plants always sell well. *Pteris Wimsetti* is extensively grown, but it is chiefly in the small sizes that this is wanted, and *P. cretica cristata* is quite as much a favourite. *P. tremula*, *Phlebodium aureum*, and *Cyrtomium falcatum* are well grown. One large house was filled with *Asplenium Nidus*. A few years ago it would hardly have been expected that the Bird's-nest Fern would sell in such large quantities as it now does. *Adiantum elegans* is also largely grown; this is found more useful than *A. cuneatum*. I should add that from among seedlings of *Pteris Wimsetti* Mr. Cull has selected a distinct form which he has named *Wimsetti plumosum*; in this the multifid growths are finely cut. Certainly a distinct and pretty variety. *Aralia Sieboldi* is extensively and well grown, the plants being given sufficient room to ensure short sturdy growth. *Ficus repens* in hanging pots and on shelves was seen in large quantities.

COVENT GARDEN MARKET.

LAST week trade was very dull. On Saturday morning last many of the stands were empty, the growers not having made a fresh start since Christmas. There does not seem to be any sign of any immediate improvement in the trade for plants. There is a little demand for good flowering plants, but in Palms, Ferns, and other foliage there is scarcely any demand except for the small Ferns. Poinsettias are usually pretty well cleared up by Christmas, but they are holding out this season. On Saturday there were some of the best pot plants that I have seen. Cyclamens are more plentiful, but the best make very good prices. Mr. Orpwood of Uxbridge, who grows about 15,000, and sends a good many direct to the buyers from his nursery, tells me he has had a good demand for them this season. He was one of the first in the market with them, and continues to bring in well flowered plants. There are still some good Chrysanthemums coming in, also *Erica hymenalis* and *gracilis*. I have seen a few well flowered Rhododendrons, also Azaleas, mostly white, and Genistas, but these are not yet very full of flower. Tulips are very plentiful, but Hyacinths seem scarce this season. The Roman Hyacinths are very good. Some very fine plants of Begonia Turnford Hall are coming in. Gloire de Lorraine is not quite so plentiful as it was a few weeks ago, but there are some well flowered plants. In cut flowers Chrysanthemums are still plentiful, and the best blooms make good prices. Callas are also plentiful, and have gone down in price. *Lilium longiflorum* is also cheaper, but not over plentiful. Lily of the Valley is very good and the supply large, with a great fall in price. Good Roses are scarce, and make high prices. English Carnations are also scarce and sell well. One grower who is cutting about fifty dozen every day has most of them ordered beforehand, and of one variety, a good pink, all the blooms he can cut through the season are on order. Narcissus and Daffodils are now plentiful. A good many Polyanthus Narcissi are coming from the Scilly Islands. French flowers are plentiful again since the frost has gone. In the new French Market a big trade is done with the hawkers, but much of the best imported bloom is still sold in the ordinary flower market.

WOMEN AS GARDENERS.

WHEN at a recent meeting of gardeners to consider the formation of a national association, a letter was presented from a lady head gardener, in which it was requested that women holding such positions should be eligible as members, a ripple of laughter ran through the assemblage. It was by no means an ill-natured ripple, but it was one rather of amusement arising from the fact that the male gardener has not yet become familiar with women's efforts to be gardeners, or have yet learned to recognise their rights to obtain a livelihood in any honourable way.

In relation to work in competition with them women have done much in their own interest during the past ten years. They will do very much more during the next ten years, and probably by that time male gardeners will have become very familiar with the "lady" gardener. Did young men in gardens as a body—many do as individuals—but display that earnest determination to learn that is shown by women students, we should hear very much less complaint from "heads" than is now the case. Women not only display earnestness, but they are exceedingly industrious. They read, they attend lectures and classes, they work in glass houses, for instance as may be seen in such capital condition at Swanley and at Studley Castle, and they work in open weather outdoors.

They strive to make themselves familiar with real gardening elements, and to their credit be it said they grow, as their knowledge and experience progress, more alive to the fact that they are real workers, dropping all false pride and ignoring affectation or snobbishness. The young man in a garden who spends all his spare time in amusements or his thoughts even in working hours, on sports and pastimes, will presently find in these earnest women that he has beside him formidable competitors. It is just as well all gardeners should realise that the female gardener has come to stay. A. D.

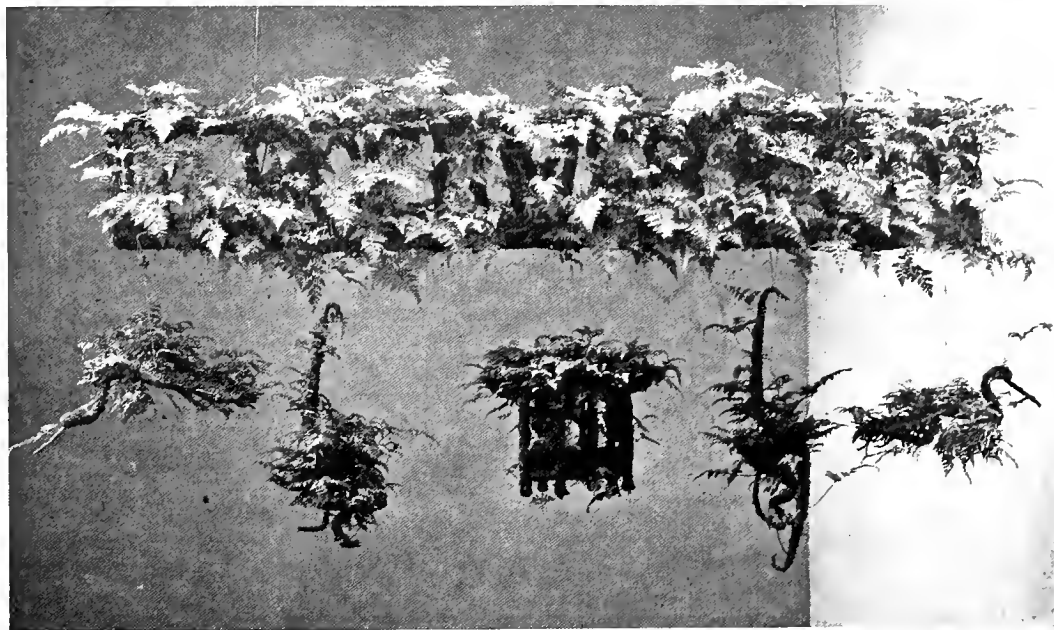
THE FERN GARDEN.

DAVALLIA BULLATA MARIESI.

SOME years ago this beautiful Fern was first introduced from Japan. It was first known as *Mariesi*, pure and simple, and, though its deciduous nature would suggest its relationship to *bullata*, it is otherwise widely different; the rhizomes are slender, spreading more freely, and the fronds of a different substance. However, to whatever species it may belong, it is as

form of this beautiful *Davallia* that appeals most strongly to all lovers of Ferns. As mentioned before, these balls and other shapes have been very largely imported this season, and I may add that on a visit to Messrs. Carter and Co.'s nursery at Forest Hill early in the season I found a large house devoted entirely to them. An arrangement was made for hanging them one above the other, so that the most could be made of the space, and many of them were doing exceedingly well. It would be wrong to say all, for a few are sure to suffer from fungi germinated in transit and other causes.

It is, however, well to note that a large percentage do well after they arrive here, and they also further improve after the first year. There may be some who procure these Ferns while they have good fronds, who think them dead when they lose all the fronds in the autumn, but I would point out that if they are kept moderately dry for a short time and then watered again they will soon start to make new fronds, and often they will make larger fronds the following season. I would also like to point out that this Fern may be raised from spores in this country, and while in quite a small state it is very pretty; it makes one of the best for larger pots. I have seen excellent examples in 5-inch pots, the rhizomes spreading over and covering the pots, and the beautiful



DAVALLIA BULLATA MARIESI SHOWN IN VARIOUS CURIOUS FORMS.

*Mariesi*, that it is now so extensively imported from Japan. It was in the form of round balls that I first saw it, and this must be nearly twenty years ago. Since that time we have seen many importations of these balls, and also other arrangements made up in various fantastic styles—monkeys, frogs, birds, and even foxes, elephants, and other animals, yet, after all, it is the globular balls which are the most satisfactory. During the past season the importations have far exceeded anything I have previously known, and I may add that many of them offered for sale have been in a poor condition, and may prejudice some against what, when well grown, is one of the best Ferns we have.

Although those grown in the ball shape are the best, the other designs are interesting and find favour with many. I would point out that the substance they have to root into is meagre, consequently they require some care. While so many Ferns do well when exposed to more light and air than is generally given, these require a moist corner where the atmosphere is close and humid. Interesting as these various grotesque forms may be, it is the more natural

fronds radiating on every side. Seen at its best there is no prettier Fern in cultivation.

A. HEMSLEY.

A GARDEN IN SCOTLAND.

OSWALD HOUSE, EDINBURGH.

IN and around the city of Edinburgh there are many good private gardens, and it is known to most of those interested in horticulture that one of the best of these is that of Mr. J. Buchanan, at Oswald House, St. Oswald's Road. Its owner is a keen lover of flowers himself, and it is well known that the exhibits from his garden help much to maintain the high character of the private exhibits at the great Edinburgh shows, where his gardener, Mr. George Wood, is a frequent prize taker. The garden of Oswald House is within the city boundary, on the south side of the city, and looking towards the Blackford Hills. It occupies an area of about three acres and is surrounded by walls. While it is best known as an establishment where the Orchid takes a leading place, the garden of Oswald

House must not be considered as devoted to that flower alone, nor only confined to stove and greenhouse plants. When I visited it November was almost at its close, an unpleasant time for seeing the outdoor garden, but in spring and summer there are many charming features. The best types of vegetables are cultivated here. Fruit is also grown in considerable quantity, and the Apples are models of what such trees should be. The Apples which do best at Oswald House are, for dessert, King of the Pippies, Cellini, and Lord Derby; Cox's Orange Pippin not doing so well. For cooking, the favourites are Stirling Castle, Lord Suffield, and Ecklinville Seedling. Small fruits do well, and Raspberries, Currants, Gooseberries (Preston Seedling is the favourite Gooseberry), Strawberries (particularly Royal Sovereign, Garibaldi, and Black Prince) and the Japanese Wineberry are all successfully cultivated. Capital crops of Grapes are in the vineries, and some young vines are in readiness for contemplated renewals. Peaches do well also.

The less formal parts of the gardens are attractive with their well-kept turf, while in summer the beds are filled with suitable plants. The well-kept tennis lawn is converted into a skating pond in winter, and great care must be taken to keep it in such good order with its annual floodings. Although there was little in bloom in the borders, except a number of Chrysanthemums, of which many are cultivated outdoors, a large variety of the best spring, summer, and autumn hardy plants were seen, while the labels showed to some extent how rich in bulbous plants the place must be. Spring and summer Phloxes, Statice, Asters, Helianthus, Saxifrage, Sedums, Doronicums, Campanulas, Irises (bearded and Spanish), Anemones, Veronicas, hardy Orchids, Narcissi, Tulips, Crocuses, Zephyranthes candida, and many others testified to the diversified tastes of the owner of the garden.

The houses are very extensive and of the best construction. In the first range entered one observed the glowing flowers of Gerbera Jamesoni, Chrysanthemums, Fuchsias, Begonias, Primulas sinensis, obconica, floribunda, &c., Statice Bucheri, and others, and a varied collection of other plants. At rest were between 200 and 300 Hippeastrums in pots, many of them raised here, and comprising a large proportion of fragrant varieties. In the Melon house Tomatoes and Melons are grown extensively, but they are now occupied by a splendid lot of Caladiums, Codiaums (Crotons), Streptocarpus, &c. The Palm house is fully stocked with fine Palms, Ferns, Pandanus, &c. Among the finest specimen Ferns were fine ones of Davallia fijiensis, Tyermanni, and bullata, and a fine specimen of Aglaomorpha (Polypodium), meyenianum, and a magnificent piece of Microlepia (Davallia) hirta cristata. One cannot hope to treat of the numerous glass structures in detail, for, apart from the Chrysanthemums (nearly over), they are occupied by a delightfully varied lot of plants. Taking the names of some of these at random, one may name the crested Cyclamens, Camellias, the Guava, a splendid lot of Anthuriums, Nertera depressa, and a host of other stove and greenhouse plants, while the frames are full of those either to succeed the ones in flower or to await the advent of spring to be planted in the open.

The great speciality here is the Orchid, and only the pen of an expert could hope to do justice to the collection, which contains many fine sorts and specimens of great excellence. Mr. Buchanan's garden is noted for its plants of Nanodes Medusa, which are grown under cool treatment. It is hopeless to attempt to exhaust, or even to single out in a systematic way, the best of the Orchids here. A few names taken as they come may, however, give an idea of the representative character of the collection. Thus there are many of the best of the Orlontoglossums—crispum Edwardi, wilckeanum pallens, grande (a very fine type), bictonense, Pescatorei nevium, &c. Cypripediums are very numerous, and the splendid pans testified to the excellence of the culture; villosum aureum, leeanum, lawrenceanum, harrisianum, Ashburtoniae caudatum, Stonei (very fine), barbatum, Exul, a very fine form of spicerianum,

chamberlainianum, and many more called for admiration whether in or out of flower. Masdevallias were also fine. The pans of tovarensis were of great beauty—igneus, harryana, amabilis, bella, houtteana, and Chelsoni were among the others. Cattleyas are splendidly grown, among them being some fine plants and forms of labiata, and some splendid pieces of crispa buchaniana (a grand variety). The Dendrobiums were exceptionally well grown, and included fimbriatum (very good), nobile, thyrsiflorum, densiflorum, brymerianum, wardianum, Cassiope, and findlayanum. Cologynes were equally good, and I noted cristata, cristata alba, the Chatsworth variety, and the difficult gardneriana, which does well at Oswald House. There was a splendid lot of Lælias, among them being anceps rubra (exceedingly fine), purpurata, superbiens, pumila, &c. Vandas were well done also, and among the Sobralias was a particularly good S. macrantha. Then there were Angreacumburneum, Anguloa Clowesii, Staehopeas in several good forms, Dendrochilum glumaceum (Platylinis glumacea) in flower, Miltonias, among them being vexillaria rubella superba (certificated at one of the Edinburgh shows), Epidendrum prismatocarpum, Pleione (Cologyne) lagenaria (well flowered), Sophronitis grandiflora, Trichosma suavis, Trichopilia coccinea, Ada aurantiaca, Leptotes (Tetramicra) bicolor, Oncidiums, Cymbidiums, and many more.

The whole place is full of interest, and though the season was not the best for a visit, we hope to have the privilege of repeating it at a time when there is a fuller display of the now largely hidden floral wealth of Oswald House. S. A.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

ACACIA GLAUDESCENS and Brachysema Drummondii.

#### Range.

Anthericum triflorum, Columnea sanguinea, Costus fissiligulatus, Dædalacanthus macrophyllus, Lachenalia pendula, and Scilla peruviana.

#### Greenhouse.

Coleus thyrsoides, Hibbertia dentata, Loropectalum chinense, Peristrophe speciosa, Prunus japonica fl.-pl., Senecio grandifolius, S. macroglossus, S. tussilaginis, and Sparmannia africana.

#### Orchid Houses.

Arides Roebelenii, Bulbophyllum auricomum, Catasetum labiatum, Cologyne graminifolia, Cryptostylis Arachnites, Cypripedium Charlesworthii, C. deedmannianum, C. fitchianum, C. haynaldianum, C. nitens, and others, Epidendrum ciliare, E. elegans, E. fragrans, E. variegatum, and others, Erica stricta, Habenaria tridactylites, Lælia alba, L. anceps, L. gouldiana, Lælio-Cattleya Amelia, Masdevallia ignea, M. tovarensis, Odontoglossum pardinum, O. Pescatorei, Phalænopsis stuartiana, Saccolabium giganteum, Seraphyta multiflora, and Tainia penangiana.

#### Alpine House.

Colchicum libanoticum, C. luteum, Crocus biflorus var. Adami, C. Imperati, C. lævigatus var. Fontenayi, Cyclamen Atkinsii, C. Coum, C. ibericum, Galanthus byzantinus, G. Elwesii var. unguiculatus, Ionopsidium acaule, Iris Histrio, and I. Vartani.

#### Herbaceous Ground and Rock Garden.

Crocus caspius, C. Korolkowi, Helleborus caucasicus, H. orientalis, Iberis gibraltaria, and Iris unguicularis.

#### Arboretum.

Chimonanthus fragrans var. grandiflorus, Clematis calycina, Erica mediterranea var. hybrida, Garrya elliptica, Hamamelis arborea, and H. mollis.

**Messrs. Richard Smith and Co.'s Centenary.**—The nursery business of Messrs. Richard Smith and Co., Worcester, was established in 1804 by the grandfather of the present proprietor, so that this year the firm will celebrate their

centenary. During this long period Messrs. Richard Smith have supplied, as they still supply, everything for the garden, whether seeds, bulbs, or nursery stock. They have had the honour of supplying the King, the late Queen Victoria, and various members of our own and other Royal Families, as well as enthusiastic amateurs throughout the United Kingdom and abroad. Their long and successful record must be very gratifying to Messrs. Richard Smith and Co.

**Mistletoe.**—It is difficult to see by what exact process of reasoning Mistletoe (*Viscum album*) has come to be regarded as poisonous by the vulgar. Botany books describe the fruit as "inferior" but succulent, and we know that birds, especially the mistle-thrush, eat it and convey the undigested seed to the trunks of trees to which its viscid coating enables it to adhere. Writers, from Paracelsus down to quite recent times, have been loud in their praises of Mistletoe as a cure for epilepsy, and as lately as 1881 Dr. R. Park, writing in the *Practitioner*, describes a mining district in the Forest of Dean where heart troubles were habitually treated with a certain tincture of Mistletoe, which was handed on to him among medicine bottles found in a rural surgery. This proved a good substitute for Digitalis. At the beginning of the eighteenth century Colbatch published a work upon Mistletoe which ran into many editions. He describes a drug made from the plant as "a most wonderful specific remedy" for convulsions, and as late as 1806, if not later, the same drug is prescribed most confidently by a certain Dr. Henry Fraser in cases of epileptic seizure. Going back to the days of Pliny we find that philosopher describing the *Viscum album* as an antidote to poison, and a remedy for sterility. His, too, is the classic description of the plucking of the Mistletoe by the Druids. At a later period, but still long before medicine had arrived even at the "signaturist" stage, Mistletoe is found playing a great part in the *Völuspá* and other Scandinavian sagas. It was with a sprig of the plant, or an arrow made of the stalk of the plant, that the blind and somewhat dull-witted god Hodür was induced by Loki, the evil principle, to have his fling, in a literal sense, at Balder, the Daylight, or good principle. Myth represents Balder as being killed outright by the Mistletoe, a little plant growing on the eastward slopes of Asgard, and the sole thing among minerals, plants and poisons, as well as among gods and men, that had not promised Freya to be harmless if used against her son Balder. Within this myth of the German forests there are doubtless other myths, but it is to this one, perhaps, that the Mistletoe owes its character as a poisoner, a remedy in cases of "soul disease"—for it was thus that epilepsy was regarded—and as a presider over chartered liberties between the sexes now symbolised by kissing.—*The Lancet*.

**Stenotaphrum glabrum.**—In THE GARDEN of the 9th inst. a note appears on the usefulness of some Grasses for indoor decoration, the particular kind there mentioned being *Paspalum elegans*. A Grass that I had long known before the full extent of its merits was recognised is *Stenotaphrum glabrum*, which is suitable for a hanging basket, and in this way there was, some seven or eight years ago, in the reptile house at the Zoological Gardens a most effective specimen, for a large basket was filled with it alone, and the long, thong-like stolons with their tufts of leaves disposed at regular intervals hung down for 4 feet or 5 feet. Since then I have employed it in a similar manner, and also as an edging to stages, for it will thrive in a very little rooting medium, and is not injured by passers by. Under favourable conditions it is of very rapid growth; the long creeping stolons, rooting at every node, from where a tuft of leaves is produced, soon cover a considerable distance. It is in many tropical countries used to form a kind of turf. There is a variety in which some of the leaves are variegated, but this is very liable to revert to the normal form. Besides the above name it is sometimes known as *Stenotaphrum americanum*. Another useful Grass is *Opismenus Burmannii*, which is generally met with in gardens as *Panicum variegatum*.—T.



# THE GARDEN

No. 1679.—Vol. LXV.]

[JANUARY 23, 1904.]

## THE FAILURE OF FRUIT BLOOM.

**M**ANY weeks must elapse before the fruit trees flower, but it may, as was the case last year, be less distant than is generally the case, because at the time of writing the winter is comparatively spring-like. If no severe weather occurs soon the flowering of fruit trees will be unduly accelerated. Should that be so we may not have to wait long after all before Peaches and Apricots, Plums and Pears will be in bloom. The great failure of the flowers last year produced a general impression that this was due to the cold, unless weather which prevailed at the time of flowering, accompanied with sharp frosts, and an early season. But some keen observers attributed the failure of the bloom to set well to the lack of due warmth the previous summer and autumn, and for this reason the organs of fertility were imperfectly developed and pollen was defective.

If that really were the case, it is not at all difficult to understand how it was that the bloom failed on all trees alike, with few exceptions. If we saw Apples, Pears, Plums, Cherries, and even wall trees either entire failures or producing miserable crops, at least here and there amongst Apple trees, some old ones, or those comparatively stunted, carried good crops. Those exceptions, it was assumed, were due to the fact that their efforts during the season were less concentrated on wood production and more on spur or bloom bud production, hence whilst many other fruit trees were barren, those with perfectly developed buds and ample pollen were fruitful. Certainly the bloom on them had to withstand the same evil climatic influences that all other tree flowers had to endure, yet that set, whilst the other failed.

There seems to be a prospect that trees will produce an abundant bloom in the spring. Probably when expanded there will be optimistic anticipations indulged in as to its ultimate product. If there should be a really fruitful result the product will be indeed a great boon, full of goodness to us all. But if another failure should result (from which misfortune we trust to be saved), will the reasons for such failure be rightly ascribed? Would it be possible for such a body as the Royal Horticultural Society's scientific committee to take fruit tree bloom under observation, to examine it microscopically, and thus

ascertain whether the organs of fertility are normal, and whether pollen grains be produced in sufficient quantity to produce fertility? Of course, it is well known that some varieties produce pollen less freely than others, hence the advantage there is in having several varieties of Apples, Pears, Plums, &c., grown close to each other that pollen may be transferred. But that fact would also render it needful to conduct observations over many varieties and also over a wide area. Where pollen is in moderate quantity, should the blooming season be favourable, a very good set may result. But if pollen be weak and a cold, gloomy, frosty time prevails, there seems to be little prospect of a satisfactory set. There is yet time also on such trees as Apples and Pears, where there is a promise of a heavy bloom, to materially thin spurs or buds on some and thus note how far a reduction of the bloom helped fertility or otherwise. So keen an observer as the late Mr. A. F. Barron used to deprecate a heavy tree bloom, on the ground that it was too exhaustive to be fertile. Assuming that bloom next season is heavy and that it is fairly good also, no doubt its fertility will be greatly helped by the heavy rainfall of the past year, even though other climatic conditions to promote maturity have not been favourable.

## THE WILD PINKS.

(Continued from page 25.)

**D. CHINENSIS** (Chinese Pink).—This well-known plant is a native of Central Asia, having been introduced from China nearly 200 years ago. About 1½ feet high, of freely branching habit, the fragrant reddish coloured flowers are produced in great profusion in summer. This species has given rise to a race of beautiful and very effective border plants with a considerable range of colour. The best known is probably *D. Heddewigi*, the Japanese variety, a strain of dwarf compact and handsome forms. There is also a section with more deeply lacinated petals. *A. c. var. dentosus*, the Amur Pink, is a distinct and pretty dwarf form, with violet-lilac flowers 1 inch in diameter, toothed margins and dark spots near the base of the petals, giving the flower the appearance of having a dark eye. Found on the coast of Manchuria.

**D. CILIATUS**.—A plant with a shrubby tendency, found in Italy; of tufted habit and having ciliated leaves. The flowers are white with almost entire beardless petals.

**D. DELTOIDES** (the Maiden Pink).—Another of our native Pinks, found in dry, gravelly pastures in various districts. The wild plant is of rather loose habit, with short blunt-pointed leaves on the barren stems, and longer narrower

leaves on the flowering stems. It will grow almost anywhere, improving in good soil, and producing its bright pink spotted flowers freely. *D. d. var. glauca* is a form which is found on Arthur's seat, near Edinburgh, with white flowers having a pink eye. Distributed over Europe with the exception of the northern part.

**D. FRAGRANS**.—A Caucasian species of lax, tufted habit, with flower stems 9 inches to 12 inches high; mostly single flowered, but sometimes attended with a second one on a short axillary peduncle. The flowers are white, with finely toothed petals, blooming in July.

**D. FREYNI**.—Closely allied to *D. glacialis*, to which species it is reduced as a variety by some authorities. This is one of the smallest and most compact plants in the genus. With slightly glaucous leaves, and purple flowers three-quarters of an inch in diameter, borne singly on very short stems. There is also a variety with pale flowers. A native of Hungary and Bosnia, it was introduced in 1892.

**D. GLACIALIS** (Glacier Pink).—A very small tufted perennial with grass-like leaves. This rare species is found on the high granitic mountains of Central Europe. The small reddish purple flowers with dentate petals are scentless and solitary, on very short stems only 1 inch to 3 inches high. Frequently a long lived plant in cultivation, its chief enemies are slugs, which are fond of it, and against whose attacks it must be carefully guarded. It will thrive in sandy peat to which may be added a proportion of granite chippings. *D. g. var. gelidus*, from the Transylvanian Alps, is now given specific rank in Williams' monograph.

**D. LEPTOPETALUS**.—This plant, which is more curious than beautiful, is remarkable for its long, narrow white petals. The flowers are in twos and threes on slender stems, sometimes over a foot in length. A native of the Caucasus, from whence it was introduced in 1814. It flowers in July.

**D. LONGICAULIS**.—From Mount Amaro in Italy, this plant is of tufted habit, with solitary rose-coloured flowers on slender stems, 9 inches to 12 inches high in summer.

**D. MASMENEUS**.—Named after one of its habitats, Masmeneu-dagh in Kurdistan, this species is also found in the alpine region of the mountains of Cappadocia. A pleasing plant, of somewhat lax habit, the flowers are usually in loose cymes on short peduncles; the dentate petals are rose-coloured above and yellowish underneath.

**D. MICROLEPIS**.—A distinct little alpine, very dwarf and tufted in growth, with small rose-coloured flowers, solitary, on stems 1 inch to 2 inches high, flowering in August; it is a native of Eastern Europe, growing on the high alpine rocks in Transylvania and Macedonia. There is also a white-flowered variety in cultivation.

**D. NEGLECTUS**.—This charming species is referred to *glacialis* by some authorities, and is made a variety of that species by Williams in his monograph. It is, however, a much taller

plant, with stems 6 inches high, with tufts of narrower and more pointed leaves. These are more inclined to be glaucous than those of the Glacier Pink, and the deep rose-coloured flowers are frequently borne two on each stem. A native of the high alpine regions of the Swiss and Italian Alps, it was introduced in 1869, and is one of the prettiest of our rock plants, succeeding in an open situation in stony soil or in a crevice. W. IRVING.

(To be continued.)

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

January 26.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

February 2.—National Amateur Gardeners' Association Meeting.

February 6.—Société Française d'Horticulture Meeting.

February 8.—United Horticultural Benefit and Provident Society Committee Meeting.

February 9.—Royal Horticultural Society's Drill Hall Meeting; Horticultural Club Annual Meeting, 5 p.m., Annual Dinner, 6 p.m. Sir John Llewelyn, Bart., chairman of the club, will preside.

February 10.—East Anglian Horticultural Club Meeting.

February 12.—Royal Gardeners' Orphan Fund Annual General Meeting.

February 23.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

**Royal Horticultural Society.**—The next fruit and flower show of this society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. A lecture on "Oranges" will be given by Mr. H. Somers Rivers at three o'clock. At a general meeting of the society, held on Tuesday, the 5th inst., fifty-three new Fellows were elected.

**Gardeners' Royal Benevolent Institution.**—The festival dinner of this institution will be held at the Hotel Metropole, Whitehall Rooms, on June 28 next, when the treasurer, Mr. Harry Veitch, will preside.

**National Rose Society: Fixtures for 1904.**—Metropolitan show, Inner Temple Gardens, London, E.C., Wednesday, July 6; autumn show, Horticultural Hall, Vincent Square, London, S.W., Tuesday, September 20; annual dinner, Thursday, December 8, Hotel Windsor, Victoria Street, S.W.

**Gardeners' Royal Benevolent Institution (Liverpool Auxiliary).**—The first annual meeting of this institution was held at the Golden Lion Hotel on the 12th inst., Mr. C. A. Young in the chair. The secretary's report proved in every way a satisfactory one. The total number of life members and subscribers is twenty-two, in addition to many who contribute direct to the parent body. The total amount paid to Mr. Harry J. Veitch, the treasurer, is £103 9s., with a small balance in favour of the local branch. A smoking concert was held under the auspices of the society, when Mr. R. J. Harvey Gibson, M.A., F.L.S., presided. This proved an excellent medium for making known the advantages of this institution. Votes of thanks were accorded to Messrs. R. P. Ker and Sons, Thomas Davies and Co., and C. A. Young for their generous assistance in providing the floral decorations on that occasion. The following officials were unanimously re-elected to their respective positions: Chairman, Mr. C. A. Young; treasurer, Mr. A. J. Crippin; and secretary, Mr. R. G. Waterman, Woolton. Arrangements are in progress for the third concert, to be held on February 13, when W. W. Rutherford, Esq., M.P., has kindly consented to preside. It is to be hoped he will be well supported, so that the institution may derive substantial benefit.

**Kew gardeners' social gathering.**—The seventh annual social gathering of the young gardeners in the Royal Gardens, Kew, and their

friends was held on Friday, the 15th inst., at the Boat House, Kew, and proved a great success. The room was tastefully decorated with Palms, evergreens, &c., and a programme of thirty items included an excellent selection of music and dances. Over 150 persons were present, many of them being old "Kewites."

**Mr. John Burns**, who for many years has been superintendent of the Leicester parks, resigns his position at the end of this month. To the numerous exhibitors, judges, and other officials annually attending the Leicester flower show Mr. Burns has long been a familiar personality, and a cheery welcome to visitors could always be depended upon from him.

For the past twenty-two years Mr. Burns has had charge of the public parks, open spaces, and street planting under the Corporation of the Borough of Leicester, and he has now placed his resignation in the hands of the parks committee, which is to take effect at the end of this month. During Mr. Burns' term of service he has laid out under the municipality some 500 acres of parks and open spaces, and in various parts of the town there are to be found commodious parks admirably planted and maintained, which are greatly appreciated by the Leicester folk, and to which they flock in favourable weather. A pleasing feature is the gymnasium attached to each park, the children being particularly provided for. The Abbey Park—the largest and most popular of the Leicester parks, in which is the residence of the curator—has been the special pride of Mr. Burns, the large glass conservatory and other houses being filled with many large specimen plants. The Abbey Park flower show, which is held on the first Tuesday in August, originated with Mr. Burns, and he has been its superintendent, carrying out the arrangements with the assistance of a competent staff. It is now a great Midland gathering. Many exhibitors and judges have a grateful remembrance of the kind hospitality and attention they have always received from Mr. Burns. In all probability Mr. Burns will reside in the North.—R. D.

**Potatoes in 1903.**—The following statement from the Agricultural Returns of Great Britain for 1903 shows the estimated total produce and yield per acre in Great Britain in the year 1903, with comparisons for 1902, and the average yield per acre of the ten years 1893-1902:

Crops.	Estimated Total Produce.		Average.	
	1903. Tons.	1902. Tons.	1903. Acres.	1902. Acres.
England .....	2,041,023 ..	2,225,569 ..	402,725 ..	412,739 ..
Wales .....	131,846 ..	155,508 ..	30,197 ..	31,446 ..
Scotland .....	740,844 ..	813,111 ..	131,364 ..	129,095 ..
Great Britain ...	2,913,713 ..	3,194,188 ..	564,286 ..	573,880 ..

Crops.	Average Estimated Yield per Acre.		Average of the Ten Years.	
	1903. Tons.	1902. Tons.	1893-1902. Tons.	1893-1902. Tons.
England .....	5.07 .....	5.39 .....	5.96 .....	5.96 .....
Wales .....	4.37 .....	4.95 .....	5.05 .....	5.05 .....
Scotland .....	5.64 .....	6.27 .....	5.75 .....	5.75 .....
Great Britain ...	5.16 .....	5.57 .....	5.89 .....	5.89 .....

**The late Mr. J. C. Fidler.**—The short time which has elapsed since the sudden death of Mr. J. C. Fidler of Caversham has enabled the people there and in Reading, where he was so well known, to realise more vividly the loss the district has sustained. He was a man of wonderful foresight and great ideas, and was the originator of many schemes either projected or in course of reaching a practical completion. Mr. Fidler's first building scheme was the demolition of the tumble-down property in Friar Street and the east side of West Street, and the substitution of the handsome range of buildings now standing there. He practically rebuilt the whole of the east side of West Street, round to the present commodious premises of his firm. He built the whole of Thames Terrace, Caversham. He constructed Queen Victoria Street, a thoroughfare 350 feet in length, connecting Friar Street with Broad Street. Mr. Fidler made roads and erected villas, a considerable number being at present in the course of construction. Another notable venture was the

purchase of Prospect Park from Major Liebenrood. Mr. Fidler immediately offered to sell part of it to the town. The Corporation at first declined, but subsequently accepted the offer, Mr. Fidler himself contributing £1,000 towards the cost. At the time of his fatal illness Mr. Fidler had several great schemes in his mind.

**The late Mr. William Horne.**—The interment of Mr. William Horne, senior partner in the firm of Messrs. William Horne and Sons, took place at Cliffe amid every manifestation of respect and sympathy. The deceased gentleman was fifty-four years of age, and had been for many years one of the churchwardens of the parish. Death was due to heart disease, after an illness of some weeks duration. In July last, when hurrying to catch a train, he was seized with heart trouble, and, although he recovered sufficiently to get about again and attend to his business at Rochester, Maidstone, and other markets of the county, he suffered considerably, and his death did not come altogether as a surprise to his relatives and intimate friends, although he was of robust appearance.

**A Nature study exhibition.**—Those who are endeavouring to stimulate interest in Nature study will learn with satisfaction that the Bath and West and Southern Counties Society has arranged to hold a Nature study exhibition in connexion with its annual meeting at Swansea in May next. The remarkable interest—as shown by the number of exhibits and the attendance of visitors—manifested in a similar exhibition held by the society for the first time at Bristol last year justifies a belief that the annual migratory show might with advantage be utilised for bringing such teaching as goes direct to Nature for inspiration under the notice of agriculturists and others. The society, therefore, through its Nature study committee, consisting of the president of the society (Lord Windsor), the Marquis of Bath, the Right Hon. H. Hobhouse, M.P., Sir C. T. D. Acland, and Messrs. H. M. Cundall, F.S.A., F. G. Farwell, A. G. Legard, H.M.I., J. C. Medd, M.A., G. H. Morrell, M.P., and N. Story-Maskelyne, F.R.S., invites educational authorities and institutions to contribute, for exhibition, collections, models, appliances, &c., illustrative of the subject in question, the desire being to render the exhibition as representative as possible.

**Hydrocyanic gas as an insect destroyer.**—Experiments of an interesting character were made recently at Messrs. Lodd's Nurseries, Swanley Junction, in the demonstration of the new process of cyaniding by hydrocyanic acid gas in glass houses. The experiments were performed in the presence of about twenty-four growers. It is claimed that the gas will destroy all insect and vermin pests to which flowers and plants of any kind grown under glass are subject. At the same time it has to be borne in mind that the operation of cyaniding must be very carefully performed, or the gas will kill the men as well as the insects. Other experiments are to be made. Those referred to were fairly successful.

**"The Woman's Agricultural Times,"** which is edited by the Countess of Warwick, will be reissued in the form of a quarterly magazine, price 6d. The *Woman's Agricultural Times* was started in June, 1899, as a penny monthly, and has thus completed four volumes. Although it is primarily the official organ of the Lady Warwick Agricultural Association for Women and of the Lady Warwick College, its range is by no means confined to this area, as it has dealt with almost all matters connected with the lighter branches of agriculture, and with rural industries, and, in a word, with anything relating to country life. Its aim has been to be of practical use to those who are trying to solve the problem of "Back to the Land." This journal will be published in January, April, July, and October. The Agricultural Association and the *Woman's Agricultural Times* are to be formed into a co-operative society, the required capital being £250. The prospectus will be printed in the first number. Among the contributors to the January issue are the Countess of Warwick and Lady Algernon Gordon-Lennox.



**Jacobinia coccinea.**—Although introduced to Kew from South America as long ago as 1770, outside botanical gardens this is a little known plant. Propagated from cuttings in spring, it requires warm greenhouse treatment till in flower, when it may be removed to a cooler house. It is advisable not to stop the plants more than once, as the more shoots a plant carries the smaller will be the terminal scarlet spikes in comparison. Several plants were exhibited by Messrs. Veitch, of Chelsea, at the Drill Hall on the 5th inst.—A. O.

**Felling trees by electricity.**—Experiments that have just been made in tree felling by electricity in various forests in France have proved completely successful. A platinum wire, brought to white heat by means of an electric current, takes the place of the saw. By this method the tree is cut through more easily and more rapidly than by the old process. The sawing is avoided, and the slight burning produced by the hot wire acts as a preservative of the wood. This new method, says *Le Jardin*, takes far less time than the old one.

**Senecio grandifolius.**—This striking plant has been in flower in the greenhouse, Kew, for the past five or six weeks; the bold, deep green leaves, over a foot in length, are surmounted by a corymbose inflorescence of yellow flowers 1 foot to 1½ feet across. Larger heads of flower are obtained from cuttings than from old plants. Inserted singly in small pots in a close propagating frame in February or March, and potted on as required without stopping, plants 3 feet to 4 feet high can easily be grown in one season. They may be placed outside in summer if the weather is favourable, but during such a summer as experienced last year they are best grown inside. It is also known under the name of *S. Ghiesbreghtii*.—A. OSBORN.

**Clematis calycina.**—The value of a plant can only rightly be tested when it is seen in the position where its distinct character can be displayed to the best advantage. Somewhat lukewarm praise was measured out lately to this evergreen Clematis, and very justly so, when it is grown as a pillar plant, for which it is not well suited. Perhaps one might even think twice before giving it a choice position on a wall, in spite of its beautiful foliage, for its flowers, though pretty and dainty, are not showy. But an echo of memory of long ago brings back to my mind this Clematis as it was grown in a Devonshire garden, on the low balustrade of a flag-paved terrace leading to steps, and it would have been hard to find a prettier garden picture. It may safely be said that in such a position or perhaps scrambling over a low, dry wall, it would not disappoint the most fastidious taste. It is not so tender as might be supposed, and may be grown anywhere south of London in sheltered spots. I can well remember the delight, on a winter's morning, of gathering the pale, freckled flowers which accord so well with the finely-cut bronzed leaves. The foliage, moreover, is particularly valuable for cutting to mix with *Anemone fulgens* or other early spring flowers. *C. cirrhosa* is often mistaken for *C. calycina*, for both are met with occasionally under the synonym of *C. balearica*, but though the flowers are not dissimilar, the foliage of *C. cirrhosa* is quite distinct in texture and colouring and has not the same value.

**Jacobinia chrysocephala.**—It is remarkable that a plant so conspicuously ornamental as the golden-crowned *Jacobinia* should not have found its way long before now into public regard—for once the high-sounding name is no misnomer. The fine group in flower, exhibited by Messrs. James Veitch, at the Drill Hall, on Tuesday, the 5th inst., will do more to call attention to its good qualities than many paragraphs in horticultural journals, though it has been commented upon several times in the pages of *THE GARDEN* and others with well-merited appreciation. It cannot be called a new plant, since it was first introduced from Mexico more than thirty years ago, but practically it was reintroduced only last year. This golden-crowned *Jacobinia* would be valuable for the greenhouse at any season, but the fact of its being winter flowering makes it tenfold more precious. On making its acquaintance for the first time one experiences a new sensation. It will

light up a cool greenhouse—the Cape house at Kew for example—on a dull November day with a glow of brightness almost dazzling, and quite inspiring at that dead season, while it continues in full beauty for many weeks, as is evident from its being exhibited now in the early days of the new year. The dark green, strongly-nerved leaves form an admirable background for the brilliant coronals of flowers. Like most square-stemmed plants, it is easily raised from cuttings, and as there is no special cultural difficulty to be overcome, no reason exists why this fine plant should not become even more popular and widely grown than its near relative the carmine-pink *J. magnifica carnea*, an old favourite, which, by the way, in recent years has run through several changes of name from *Justicia* and *Cyrtanthera* to the present one of *Jacobinia*, where we may hope both plants will now be allowed to rest.—K. L. D.

**Chrysanthemum W. H. Lincoln.**—This is still one of the best late Chrysanthemums. For some reason or other many of the recognised late sorts have been much earlier than usual. Probably this is due to the soft, unripened condition of the growth. *W. H. Lincoln* is an exceptionally good yellow. It is now approaching its best with us, and will be very useful till the end of January. It is not always that this variety can be relied upon, as, unless it is well grown, it has a tendency to produce deformed buds, which fail to open during the dull months of December and January. Golden Gem has been splendid, but unfortunately much earlier than usual, and its flowering period is fast approaching the close. *Lady Canning* is well up to its usual high standard, and is a worthy companion to *W. H. Lincoln*.—E. HARRISS.

**Missouri Botanic Garden.**—In accordance with the intention of its founder, the trustees of this garden offer theoretical and practical instruction for young men desirous of becoming gardeners. It is not intended that many persons shall be trained at the same time, nor that the instruction so planned shall duplicate the excellent courses in agriculture now offered by the numerous State colleges of the country, but that it shall be quite distinct, and limited to what is thought to be necessary for training practical gardeners. Six scholarships are offered, and are held for four years. Pupils, in addition to those holding scholarships, are also admitted to the garden at a charge of £5 per year for tuition.

**Gardeners' Improvement Society in India.**—Exactly a year ago several correspondents asked us to support a suggestion for the establishment in India of a Gardeners' Mutual Improvement Society. Personally we have much sympathy with such a movement, and should like to see it come to fruition. We are led to a consideration of the subject again from a letter we have received from an enthusiastic amateur gardener, urging us to ventilate the question again. We do so with pleasure, and quote what we wrote on the subject last year, in the hope that something practical will result. We wrote: "We have received two written expressions of opinion from Kew men on this subject; one of these is from Mr. A. C. Hartless, of Mungpa, who says: 'I am glad to see your article on a Gardeners' Mutual Improvement Society for India. Some time ago I was in correspondence with Mr. Gollan on this very subject, and he agreed with me that it was desirable; but owing to the almost impossible probability of our ever meeting together, we could not then see our way to doing anything further. Whatever society is formed it will be pre-eminently a corresponding one.' The more that gardening spreads in India the better for the profession, whether gardeners or nurserymen—especially nurserymen. We have had an interview with the Curator of the Royal Botanic Gardens, Calcutta, on this subject. He said his official duties did not permit him to take any leading part in the scheme, but he would be glad to give advice in the matter; he was not antagonistic to the measure."—*Indian Planting and Gardening*.

**Peristrophe speciosa.**—Belonging to the natural order Acanthaceae, this plant, according to the *Botanical Magazine*, t. 2722, where it is figured under the name of *Justicia speciosa*, is one of the greatest adornments of the interior of the

forests of Bengal. Of easy culture, it is certainly a most useful plant for greenhouse decoration during the winter months. Individually, the flowers are small, but this is more than compensated for by the freeness with which they are produced. The tube of the corolla is purplish in colour, the two lips being several shades deeper. Propagated by cuttings in spring, they should be pinched several times to form bushy plants; 6-inch pots will be large enough the first year. Should larger plants be required, old ones may be cut back after flowering, water partially withheld for a month, then started into growth in a warm house and potted into 8-inch pots. Occasional doses of weak liquid manure are very beneficial when the pots are full of roots. *Abutilon Savitzi* dotted here and there adds greatly to the effect of a group of this plant.—A. O.

**Abutilon Savitzi.**—This is a most useful and desirable plant to grow. I was much struck with it in a bed last season, associated with *Lobelia Queen Victoria*, with a carpeting of *Gazania splendens*, the whole making a very striking combination. Recently it was the predominant feature in the decoration of a large dinner table, and I do not think I have ever seen it to better advantage. The pink *Begonia Gloire de Lorraine* was sparingly used with it, just sufficient to add a little colour, but not enough to detract appreciably from the beauty of the *Abutilon*. Under artificial light the delicate variegated colouring of this lovely plant is greatly enhanced. It is easily propagated, and may be grown in quite tiny pots, which makes it very adaptable for decorative work.—E. HARRISS.

## THE FLOWER GARDEN.

### SELECTION OF SWEET PEAS.

THE following selection of Sweet Peas will be useful to those who want varieties for the spring sowing. These lists have been prepared under the auspices of the National Sweet Pea Society, and the following information is taken from the annual report for 1903. We may add to these the beautiful pink variety, Countess Spencer, which has been so well spoken of recently in *THE GARDEN*.

"In the classification list the number of votes recorded for a variety was taken to represent the value of that variety in its particular class, and, no doubt, this was a reasonable and also a pretty correct assumption. But the committee could hardly have expected that both the audits of the 1903 exhibition would show how remarkably correct the classification list—the first of its kind—is. The following colour list will explain the whole matter more readily than any words: In the first column are the nineteen colour classes; in the second column is shown the variety gaining the highest position in each class in the classification list; the third column indicates which variety of the same class occupied the highest position in the general audit; and the fourth column shows the premier variety of each class as indicated by the audit of first prize collections. Among pinks, Love has displaced *Prima Donna*, and *Gorgeous* has had to give place in the orange shades class to the all-conquering *Miss Willmott*. *Lottie Eckford* is equalled by *Maid of Honour* in the fourth column for *Picotee-edged*, and similarly *Jeannie Gordon* shares the honours with *Triumph* as the premier bicolor. *Dorothy Eckford*, as was anticipated, has surpassed *Blanche Burpee* as a white; the Hon. Mrs. Kenyon has ousted *Queen Victoria* from first place among the yellow and buff shades; and *Othello* has been passed over in favour of *Black Knight*. The new *Gracie Greenwood* takes the lead of *Lottie Hutchins* in the first prize audit, and as it is well up the list in the general audit it bids fair to lead the American variety next season, when it will be more widely grown. *George Gordon* has asserted itself as the best Magenta Sweet Pea, declining even the honour of being equal first with *Captivation* as indicated by the classification list. Thirteen of the varieties hold the highest position in their respective colour classes in all three lists,

but two of these have been rivals for first place in the affections of the leading competitors. This proves, if it proves anything at all, that the first work of the society in this direction was well conceived and well carried out, and suggests that quite apart from its usefulness as the provider of an attractive flower show, the society has claims upon the support of all who love and cultivate this most fragrant, popular, and beautiful of annual flowers.

In the audit of first prize collections there are forty-six varieties exhibited two or more times, and as in the majority of gardens no larger number of varieties is annually grown, a comparison between these forty-six and the first forty-six in the general audit may prove interesting and instructive. A glance at the two audits will show that thirty-eight of the varieties are found among the first forty-six

in both classes, although their positions may be considerably different. The eight varieties which are in the first forty-six of the first prize audit, but not in the general audit, are Agnes Johnson, Maid of Honour, Mrs. Eckford, Dainty, Duke of Clarence, Lord Kenyon, Monarch, and Mrs. W. P. Wright, while the eight varieties that are found among the first forty-six in the general audit, but are absent from the first prize audit, are Mars, Mrs. Joseph Chamberlain, Gorgeous, Blanche Burpee, Queen Victoria, Mrs. Dugdale, Hon. F. Bouverie, and Venus. Curiously enough, neither Mrs. Dugdale nor Venus was shown in a first prize collection, and, on the other hand, Katherine Tracy, Lemon Queen, and Modesty, which were only once shown in the entire competition, each appeared in first prize stands."

COLOUR LIST.

Colour.	Classification List.	General Audit.	First Prize Audit.
Crimson	Salopian	Salopian	Salopian
Rose and Carmine	Prince of Wales	Prince of Wales	Prince of Wales
Pink	Prima Donna	Lovely	Lovely
Orange Shades	Gorgeous	Miss Willmott	Miss Willmott
Blush	Duchess of Sutherland	Duchess of Sutherland	Duchess of Sutherland
Picotée Edgè	Lottie Eckford	Lottie Eckford	Lottie Eckford
Red Stripes	America	America	America
Purple and Blue Stripes	Princess of Wales	Princess of Wales	Princess of Wales
Yellow and Buff	Queen Victoria	Hon. Mrs. Kenyon	Hon. Mrs. Kenyon
Bicolors	Triumph	Triumph	Triumph
Blue	Navy Blue	Navy Blue	Navy Blue
Mauve	Dorothy Tennant	Dorothy Tennant	Dorothy Tennant
Violet and Purple	Duke of Westminster	Duke of Westminster	Duke of Westminster
Marone and Bronze	Othello	Black Knight	Black Knight
Lavender	Lady Grizel Hamilton	Lady Grizel Hamilton	Lady Grizel Hamilton
White	Blanche Burpee	Dorothy Eckford	Dorothy Eckford
Fancies	Lottie Hutchins	Lottie Hutchins	Gracie Greenwood
Magenta	(George Gordon)	George Gordon	George Gordon
Cerise	(Captivation)	Coccinea	Coccinea

COMPLETE AUDIT OF VARIETIES SHOWN IN COMPETITION.

Variety.	Times Shown.	Variety.	Times Shown.	Variety.	Times Shown.
1. Miss Willmott	44	Countess of Radnor	12	Emily Henderson	4
2. Navy Blue	35	Captain of the Blues	11	Monarch	4
3. Lovely	34	Countess of Lathom	11	Mrs. Walter P. Wright	4
4. The Hon. Mrs. Kenyon	32	Emily Eckford	11	Sensation	4
5. Black Knight	30	Gracie Greenwood	10	Countess of Powis	3
Lady Grizel Hamilton	30	Queen Victoria	10	Duke of Sutherland	3
Prince of Wales	30	Royal Rose	10	Mrs. Sankey	3
6. Duke of Westminster	29	King Edward VII.	9	Stella Morse	3
Salopian	29	Lady M. Ormsby-Gore	9	28. Apple Blossom	2
Dorothy Eckford	28	Mrs. Dugdale	9	Chancellor	2
Triumph	28	Admiration	8	Coquette	2
Coccinea	27	Gaiety	8	Countess of Shrewsbury	2
8. Mars	24	George Gordon	8	Fascination	2
9. Jeannie Gordon	21	Hon. F. Bouverie	8	Grey Friar	2
Othello	21	Venus	8	Mrs. Fitzgerald	2
Prima Donna	21	23. Captivation	7	Shahzada	2
Sadie Burpee	20	Lady Nina Balfour	7	29. Boreatton	1
Lottie Hutchins	19	Maid of Honour	7	Dolly Varden	1
13. Lord Rosebery	18	Mrs. Eckford	7	Eliza Eckford	1
Mrs. Joseph Chamberlain	18	24. Dainty	6	Firefly	1
Duchess of Sutherland	17	Duchess of Westminster	6	Isa Eckford	1
Prince Edward of York	17	Stanley	6	Katherine Tracy	1
Lady Mary Currie	16	25. Agnes Johnson	5	Lady Skelmersdale	1
Lottie Eckford	16	Countess of Aberdeen	5	Lemon Queen	1
Countess Cadogan	14	Golden Gate	5	Modesty	1
Gorgeous	14	Lord Kenyon	5	Mout Blanc	1
Her Majesty	14	Pink Friar	5	Oriental	1
Princess of Wales	14	Sensation	5	Seedling	1
17. Dorothy Tennant	13	26. Aurora	4	Total bunches	991
18. Blanche Burpee	12	Colonist	4	" varieties	90
		Duke of Clarence	4		

AUDIT OF VARIETIES SHOWN IN FIRST PRIZE EXHIBITS.

Variety.	Times Shown.	Variety.	Times Shown.	Variety.	Times Shown.
1. Dorothy Eckford	9	Prince Edward of York	4	9. Colonist	1
Lady Grizel Hamilton	8	Countess Cadogan	3	Countess of Aberdeen	1
Lovely	8	Countess of Lathom	3	Duchess of Powis	1
3. Duke of Westminster	7	Dorothy Tennant	3	Duchess of Westminster	1
Hon. Mrs. Kenyon	7	Duchess of Sutherland	3	Duke of Sutherland	1
Jeannie Gordon	7	Mrs. Eckford	3	Eliza Eckford	1
Miss Willmott	7	Princess of Wales	3	Emily Henderson	1
Prince of Wales	7	8. Admiration	2	Golden Gate	1
Salopian	7	Countess of Radnor	2	Gorgeous	1
Triumph	7	Dainty	2	Grey Friar	1
4. Navy Blue	6	Duke of Clarence	2	Hon. F. Bouverie	1
5. Black Knight	5	Emily Eckford	2	Katherine Tracy	1
Coccinea	5	Gaiety	2	Lady Nina Balfour	1
Lady Mary Currie	5	Her Majesty	2	Lemon Queen	1
Lord Rosebery	5	Lady M. Ormsby-Gore	2	Mars	1
Prima Donna	5	Lord Kenyon	2	Modesty	1
6. Agnes Johnson	4	Lottie Hutchins	2	Mrs. Fitzgerald	1
America	4	Monarch	2	Mrs. Joseph Chamberlain	1
Captain of the Blues	4	Mrs. Walter P. Wright	2	Pink Friar	1
George Gordon	4	Royal Rose	2	Queen Victoria	1
Gracie Greenwood	4	Sadie Burpee	2	Shahzada	1
King Edward VII.	4	9. Apple Blossom	1	Total bunches	216
Lottie Eckford	4	Blanche Burpee	1	" varieties	71
Maid of Honour	4	Boreatton	1		
Othello	4	Captivation	1		

CLASSIFICATION OF SWEET PEAS.

By MR. HUGH ALDERSEY, ALDERSEY HALL, CHESTER.

I.—SELFS.

White.—Dorothy Eckford, Sadie Burpee, Blanche Burpee, and Emily Henderson.  
 Blush.—Duchess of Sutherland and Countess of Aberdeen.  
 Cream.—Mrs. Fitzgerald, Lottie Hutchins, and Gracie Greenwood.  
 Yellow.—Hon. Mrs. Edw. Kenyon, Queen Victoria, Lady M. Ormsby-Gore, and Mrs. Eckford.  
 Pink.—Lovely, Hon. F. Bouverie, and Prima Donna.  
 Rose.—Prince of Wales, Lord Rosebery, and Mrs. Dugdale.  
 Bright Rose.—Lady Mary Currie, Miss Willmott, and Chancellor.  
 Orange.—Gorgeous, Countess of Powis, and Meteor.  
 Crimson.—King Edward VII., Salopian, and Mars.  
 Cerise.—Coccinea.  
 Lavender.—Lady Grizel Hamilton, Countess of Radnor, and Lady Nina Balfour.  
 Blue (Dark).—Navy Blue, Captain of the Blues, and Duke of Sutherland.  
 Blue (Light).—Emily Eckford and Countess Cadogan.  
 Violet.—Duke of Westminster and Duke of Clarence.  
 Mauve.—Mrs. Walter Wright, Dorothy Tennant, and Admiration.  
 Marone.—Othello, Black Knight, and Stanley.  
 Magenta.—George Gordon, Lord Kenyon, and Calypso.

II.—BICOLORS.

Rose and White.—Triumph, Royal Rose, and Little Dorrit.  
 Pink and Buff.—Agnes Johnson, Venus, and Countess of Lathom.  
 Scarlet and Pink.—Prince Edward of York.  
 Rose and Buff.—Jeannie Gordon.

III.—FLAKES (WHITE GROUND).

Red.—America and Aurora.  
 Blue.—Princess of Wales and Senator.

IV.—FANCIES.

Duchess of Westminster.

V.—PICOTÉE.

Maid of Honour, Golden Gate, and Lottie Eckford.

RIVIERA NOTES.

MENTION has been made of the Strawberry Grape, I see. Only to-day have we eaten, with regret, the last bunches of this high-flavoured Grape, which we think so delicious. Whether it is so desirable when grown in a vinery is a question of individual taste, for it could not be a profitable fruit under glass, as its growth is so strong and the crop of fruit always rather small, both in berry and bunch, when the immense spread of foliage and growth is considered. The flavour varies according to the amount of sun it receives. The very highest flavoured examples remind one strongly of Black Currants and Raspberries mixed—not the least like an ordinary Grape. Sometimes a few berries do remind one a little of a sun-baked Strawberry; but the Raspberry-Black-Currant flavour is the prevailing "tone" to use, a mixed metaphor.

Buddleia ASIATICA, it seems, is coming to the front again. Under many synonyms it has been grown for long years on this coast; indeed, I first inhaled its delicious odour when driving "Vetturino" on this coast near the Osteria del Matto, made famous by Ruffini in his "Doctor Antonio," and it is amusing to think it should have been considered a new plant by anybody that is cognisant of gardening and gardens on this coast. I have never seen it injured by the hardest frosts here, so it must be pretty hardy, and should thrive on a south wall, where Solanum jasminoides flourishes. Buddleia asiatica, Chimonanthus fragrans, and Lonicera fragrantissima are a trio of sweet-scented winter-blooming shrubs no garden lover should be without.

PRIMULA MEGASEFOLIA is a charming little thing like a miniature Polyanthus, rose-lilac and golden-eyed, on slender stems, and if any hybrid can be obtained between it and obconica, or some Polyanthus of its own colouring, a more vigorous and useful garden plant may be obtained. There is a charm about it that is entirely lacking in P. obconica, which, never-

theless, is welcome here for covering the ground in shade under shrubs and trees; but in sun or any exposure it loses its colour and looks shabby.

PRIMULA KEWENSIS is now in bloom, and is a stronger grower than its parent, *P. floribunda*; but I think the finest forms of *P. verticillata* are superior to it, as the stems are sturdier and the shade of yellow preferable to that in *P. kewensis*, which, however, flowers earlier.

TACSONIA MILITARIS produces a few magnificent blooms throughout the winter months, but its growth is so straggling, and the flowers so few, it is not to be compared to the old and excellent *Tacsonia* I grew, which also the other day figured as a new climber, much to the surprise of those who recognised in the plate a familiar friend.

HELIOTROPE TIXIER PERE.—

While the typical Peruvian Heliotrope is the most free and persistent bloomer here throughout the winter to be seen in every fairly sheltered garden, the deeper lilac and purple forms have generally proved much more tender, so that they look unhappy, yellow, and pinched by any cold rains and winds. Up to the advent of this variety President Garfield was the best purple-flowered Heliotrope for winter flowering, but even that was apt to look chilled and ill at ease; so Tixier père, which is a fine flower, rich in colour, and bold in individual pip, is a most welcome addition, as it seems quite as free and hardy as the type. It should be useful for summer bedding in England, where the dark Heliotropes are not always happy in cold and wet seasons north of the Trent. This variety is as fragrant as the type, which is also an advantage not shared by many of the deeper coloured forms.

LINUM TRIGYNUM is most excellent in combination with, or contrast to, the blue forms of the Chinese Primula; both prefer the shade, and their colours are far fresher when so grown than plants in the open. It must generally be grown too warm in English houses, as it is in perfection when the shade (day and night temperature) averages 48° to 50°, and no red spider or thrip touches it when grown out of doors.

LINUM TETRAGYNUM is much dwarfer and less free in every way; but it flowers after *L. trigynum*, and its pale corollas are pretty if not so abundant. In consequence it is rarely grown out here, as *L. trigynum* will always take care of itself, and "come up smiling" when flowering time has arrived, even after severe summer drought. This season has suited

PHLOX DRUMMONDI particularly well, or else the strain is better than usual, for I never saw it to such advantage in the month of January. As an edging to a good-sized bed of Tree Carnations it is specially attractive, for the tones of its flowers harmonise admirably with the mixed strains of Carnations grown for winter bedding. The combination, perhaps, might also look well in English gardens where Carnations are used in bedding. I see it is announced that a big show of Tree or winter Carnations is to be held at Cannes from March 3 to March 7. It is to be hoped that

the newly-raised French perpetual flowering Malmaisons may be shown there.

EDWARD H. WOODALL.

TREES AND SHRUBS.

THE SUGAR MAPLE.

THIS is a sadly neglected tree. Although introduced from North America so long ago as 1735, it is but rarely seen in this country. The illustration of a tree growing on the bank of the lake at Pencarrow gives a good idea of its appearance

leaf colouring which we associate with that season. But at Pencarrow our Sugar Maple never fails to furnish us with a wealth of glorious colour, the effect of which, when reflected by the still waters of the lake on whose margin the tree stands, is indescribable. The Sugar or Rock Maple (*Acer saccharinum*) forms extensive forests in Canada. Formerly the tapping of these trees in spring was quite an important undertaking. The juice so obtained, when boiled, deposits a dark-coloured crystalline mass—Maple sugar. Although considered to be quite equal to cane sugar, it but rarely found its way into commerce. The grain of the wood, which varies considerably in appearance, furnishes the "blister" and "bird's-eye" Maple valued for inlaying.

A. C. BARTLETT.

OLEARIA RAMULOSA.

THIS is an interesting Australian shrub which is well worth growing for the greenhouse in winter, for it is light and graceful, is easily grown, and flowers freely. Although by no means new, it is rarely seen in cultivation, Australian plants generally being neglected in most gardens. In the temperate house at Kew one or two good plants of it may now be seen in flower. These were raised from seed received from the Sydney Botanic Garden in 1901. In general appearance it differs considerably from the better-known species of *Olearia*. The main branches are made up of numerous twiggy side branches, clothed with tiny leaves barely an eighth of an inch long, green on the upper surface, and covered on the under side with a white felt. The flower-heads are white and star-shaped, and are borne from the axils of the leaves on the upper portion of last summer's wood, the upper half of a branch forming one large inflorescence. Individually the flower-heads are small, being barely a quarter of an inch across. Their lack of size is, however, made up for by their profusion. A cool greenhouse is all that is necessary for the cultivation of this plant, and during the greater part of the year a cold frame will suffice.

W. D.

ILEX CRENATA.

A NOTABLE feature of this pretty little Japanese Holly, figured in THE GARDEN, page 413 of the last volume, is the readiness with which it can be raised from cuttings, for Hollies are, as a rule, very difficult of increase in this way. If the half-ripened shoots are taken during the latter part of the summer, inserted in pots of sandy soil, and placed in a frame kept close and shaded from the sun, they will in many cases root before winter; at all events, they will be fit to pot off in the spring. Apart from the variegated-leaved variety there is one known as major or Fortunei, in which the leaves are larger and rounder and the plant itself rather more vigorous than the type. Professor Sargent, in his "Forest Flora of Japan," gives some interesting particulars concerning this Holly, as follow: "Ilex crenata is the most widely distributed and the most common of the Japanese Hollies with persistent leaves. This plant is abundant in Hokkaido, on the foothills of Mount Hakkoda, and on the sandy barrens near Gifu, on the Tokaido, and I encountered it in nearly every part of the empire which I visited. It is usually a low, much-branched, rigid shrub, 3 feet or 4 feet high, but in cultivation it not infrequently rises to



THE SUGAR MAPLE (ACER SACCHARINUM) BY THE LAKE AT PENCARROW, CORNWALL.

when developed. This tree was planted a year or so prior to 1850, and is now just 40 feet high, and the stem at 3 feet from the ground measures 3 feet 4 inches in girth. The photograph was taken last April when the tree was in flower. At this period it is very attractive; each shoot produces a short-stemmed, drooping corymb of flowers, which are of a delicate pea green colour. On a warm sunny day, or when a cut branch is placed in a warm room, the flowers emit a pleasing fragrance.

But, beautiful as the Sugar Maple is when in flower, it is still more beautiful in the autumn. During the past autumn one heard frequent lamentations concerning the lack of

the height of 20 feet, and, assuming the habit of a tree, is not unlike the Box in general appearance. The leaves, which are light green and very lustrous, vary considerably in size and shape, although they are rarely more than an inch long, and are usually ovate-acute, with slightly crenate, toothed margins. The black fruit is produced in great profusion, and adds materially to the beauty of the plant. This is the most popular of all the Hollies with the Japanese, and a plant usually cut into a fantastic shape is found in nearly every garden. *Ilex crenata* and several of its varieties with variegated foliage were introduced into western gardens many years ago, and are occasionally cultivated, although the value of this plant as an under shrub appears to be hardly known or appreciated outside of Japan."

H. P.

## A JOURNEY TO UGANDA.

THE now completed railway from the shores of the Indian Ocean to those of Lake Victoria Nyanza enables one to see a good deal and get a good general idea of the East African Protectorate. Leaving Mombasa by it one travels through long stretches of Coconut plantations thickly studded with picturesque native huts. Succeeding on this comes a fairly interesting country of a hilly character, so much so that the track winds and turns on itself frequently. One enters next on a hot, bad smelling, uninteresting stretch of country, which one is glad to leave and come to the class of scenery that seems common at about 3,000 feet altitude in East Central Africa. This is a region of thin, clean forest, of wide grassy expanses, and of conical hills often clothed with bush. Then comes another rise in altitude and we are on those vast, almost level, almost treeless, plains so characteristic of this region of East Africa. Over immense distances the only vegetation practically is grass, rarely more than 2 feet high and often quite short.

But one is apt to forget those grassy seas in the astonishment aroused by their inhabitants. These are members of the gazelle family, and zebra, in extraordinary numbers. And they are not all away in the distance, for thousands graze comparatively close to the track. A charming buck (Thomson's gazelle), smaller than a fallow deer, goes in large herds. The quaint, long-faced hartebeest, with its rich yellow-brown coat, is in lesser numbers but always

picturesquely grouped. There are rietbuck and buck of various other sorts, but they do not occupy the picture as effectively as the sturdy, healthy mobs of zebra; while the many stately, long-necked ostriches are a prominent feature. Probably here we have the last stronghold of that unique, sub-tropical African fauna which the white man, in occupying the country in days gone by, has ruthlessly destroyed. Probably also there is no country now so fully stocked with game, and it is almost worth the journey to observe these interesting animals on their own ground.

On the outskirts of the plains another sight, as wonderful as the vast game lands, is impressed on one's memory. I mean the view, looking south, of

### THE FAMOUS KILIMANJARO MOUNTAINS.

Seen just after dawn across the plains, out of which the stately range appears to rise, nothing can be more impressive. The great peaks (nearly 20,000 feet high) covered perpetually with snow are coloured the most beautiful tints—generally rose or rose-pink—by the rising sun. The enormous upsweep of slope seems then so clearly lighted that one imagines details of rock and chasm to be discernible. As if by magic, strata of cloud form on the sides and as mysteriously disappear. Indeed, while gazing, the whole range may appear to vanish into cloudland, for, with a due sense of its majestic grandeur, Kilimanjaro does not always expose to the common gaze the whole of its vast proportions. In this region of the great plains there are three charming lakes—Elementeita, Naivasha, and Nakuro. Nakuro is almost surrounded by well-timbered hills of varied and pleasing outline, and here again begins the rise to those delightful higher plateaux which extend over a large area. These plateaux, and the plains they rise in, are admirably adapted for white colonists. The land is fertile and well watered, timber is plentiful, and the climate is almost perfect. We find here a *Podocarpus* and a couple of species of *Juiper*—the latter forming almost pure forest at times; but both are more frequently seen mixed with other *Dicotyledonous* trees. The scenery in these highlands is of great variety and exercises a powerful fascination on the visitor. Many parts are exquisite, such, indeed, as we ascribe to fairyland. They are bits of Nature's own gardening. It follows that these spots are of special interest to the plant-lover. There linger in one's memory beautiful effects of trees and shrubs, low-growing flowering

plants and Ferns noticed *en route*. The vegetation is rich in types, and no doubt many first-rate garden plants will be forthcoming from these plateaux.

The railway track descends from its highest point (over 8,000 feet) on the Mau escarpment to the shores of Lake Victoria. Oddly enough, when nearing the Lake an unpleasant bit of country, suggestive of that near the sea-coast, is traversed. The dominating vegetation here is a species of *Acacia*, with pale green stems and very scanty foliage, which is common in parts of Central Africa and known as "Fever Tree"—the country it inhabits suggests fever and kindred evils. On making the acquaintance of the Lake at close quarters a feeling of disappointment is experienced, for you are landed at the head of Kavirondo Bay, and it is not by any means the prettiest margin of the "Great Water." Taking the steamer here and gaining the Lake proper you quickly perceive how grand an expanse of water it is. A spacking breeze frequently blows in the forenoon and the water can be as blue as the Mediterranean. When it is lashed into fury by storm it is easy to imagine oneself on the ocean. As the route across to Uganda lies, one is rarely out of sight of land, so numerous are the islands, which are frequently picturesque and interesting. On an average fair evening the

### LAKE SCENERY

is peculiarly fascinating. One is apt to forget he is almost in the heart of Africa, for there is a strange sense of familiarity in the surroundings. The Lake shores of Uganda proper, whether viewed from the water or from the land, are picturesque in the extreme. There is frequently a striking belt of tropical forest, with magnificent stretches of *Raphia monbuttorum* on the water side; and there is often to be found, leading up to this, a beach of delightful sandy gravel of a white colour. The coast-line is indented by beautiful bays, and sometimes the shore-line is a series of low, irregular cliffs of a brown volcanic conglomerate, clothed with a short wiry grass, very pleasant to walk on; indeed, there are often wide expanses of land on the shores covered by this grass. It is also to be remarked that most unpleasant swamps composed of towering *Papyrus*, *Arundo*, and a tall, common-looking *Ruscus* are to be found—haunts of many waterfowl.

The very interesting "Ambatch" tree (*Hermiera elaphroxylon*) bears the same relation to places on the Lake shore that mangroves do to estuaries on the sea-coast. It forms a dense jungle just inside the water-line, and follows that position persistently. I have no doubt it serves the purpose of aiding the land in encroaching on the Lake, for all sorts of *debris* accumulate amongst the serried trunks. But it is interesting to observe that the tree thrives best where its trunk is immersed 3 feet or 4 feet in water; its exceedingly light, cork-like wood appears to have little or no use in native economy. The Basoga used it formerly to make their peculiar war-shields, and some considerable trade is done now in making more or less correct copies of these and selling them at a big profit to the newly arrived white man, who, to the joy of the native, is an assiduous collector of "curios"—often at fancy prices. An isolated tree, or small group, of the "Ambatch" forms a favourite site in which colonies of black and yellow weaver-birds build their interesting nests. The place is literally alive with these garrulous but industrious birds when building operations take place.

### THE LAKE SHORE FOREST,

although at nearly 4,000 feet altitude, contains vegetation of the most tropical lowland types. The common *Raphia* attains very fine proportions, and clumps of a *Phoenix* tower aloft gracefully. There are many striking species of *Ficus*, and at least one fine foliaged *Macaranga*. The wild Nutmeg (*Pycnanthus*) is ever present, topping most of the forest trees, except the noble *Piptadenia*, which frequently forms at its base remarkable buttresses. The Incense tree (*Canarium*), with its great bole and widespreading limbs, suggests a fine Oak. A striking white-flowered tree is the beautiful *Baikaa insignis*, which makes a fine show in its flowering periods.



SNOWDROPS BY STREAMSIDE AT DUNROBIN, A RESIDENCE OF THE DUKE AND DUCHESS OF SUTHERLAND.

SIR H. JOHNSTON'S FAVOURITE TREE, the blazing Erythrina, is often a dazzling splash of colour on the skirts of the forest. Landolphins scent the air and litter the ground with their beautiful flowers; their fruits—in shape and colour like Oranges—are loved by the ubiquitous monkeys. A large percentage of the older trees have their trunks wreathed with an Aroid (Culcasia), and a graceful Piper with clusters of yellowish red fruits is also a common climber. But one tires of the ever-present, overwhelming Lianas, their tough, sinuous stems seem to compose the forest in some cases. The Ginger family furnishes plenty of growth for the forest floor. A beautiful Thalia with large, baccate, bright red fruits is very effective. There are several species of Amomum, and a Hæmanthus occurs in large patches where the shade is not too dense; in flower it makes a charming picture. Ferns of a few acaulescent genera are plentiful in places, but not always common. One recalls charming pictures made by masses of Ferns in Raphia groves on the Lake shore where the shade is pleasant and the soil moist and peat-like. Not only is the ground covered with Ferns, but the Palm trunks are gracefully wreathed with

LYGODIUM SCANDENS,

while the persistent bases of the leaf-stalks furnish "pockets" wherein Ferns, Ficus seedlings, &c., find a suitable home.

Proceeding inland, one leaves this forest and encounters a country remarkable for its bumpy character. There are many little hills dotted about, and the valleys between are frequently swampy. This mostly obtains in Southern Uganda; and it is to be remembered that there are always Bananas—the country-side is often covered with plantations of them—Bananas without end. It is an ideally lazy existence—that of a Baganda. You plant up your Bananas and sit in the shade for the remainder of your days, while your wives do the little cultivation needful. Uganda generally is a

MOST PICTURESQUE

and interesting country. Already a considerable literature has grown up about it. I believe it has a promising commercial future, and it ought to go ahead if the health of the white men engaged in the task of whipping it into shape can be assured. Unfortunately for them and for it a great many breakdowns occur. It is hard to convince even those who know it that such a charming country can have so much disease lurking about.—J. MAHON, in *Kew Guild Journal*.

NOTES ON HARDY PLANTS

SNOWDROPS IN DUNROBIN CASTLE GARDENS.

WHERE these bulbs are naturalised in large numbers throughout the wilder portion of the garden and in the woodland, no flower of early spring can produce such a charming effect as the white carpet of Snowdrops, excellent examples of which are shown in the accompanying illustrations, from photographs taken in the gardens at Dunrobin Castle, a residence of the Duke and Duchess of Sutherland.

Mr. David Melville, the head gardener there, wrote an excellent article on the Snowdrops at Dunrobin in THE GARDEN of



WHITENED WITH SNOWDROPS: A WINTER PICTURE AT DUNROBIN.

September 26, 1903, and for fuller information concerning them reference should be made to the notes there published.

GALANTHUS CILICICUS.

I RECEIVED a few bulbs of this Snowdrop from a firm of seedsmen late in October, 1902. Some I planted at once in a pot in a cold frame, and some in a clump in a sheltered spot outside. Those in the pot threw up leaves, but none of them flowered.

Of those planted in the open several flowered at the end of November of the same year. This season they are only now (the 9th inst.) opening their blooms, but the latter are more numerous and the plants look stronger and more healthy than they did last year. From this behaviour one is tempted to think that they are gradually reverting to what seems to be the natural flowering season of the Snowdrop in this climate, viz., early spring. I should very much like to hear the opinion and the experiences of any of your other correspondents who have grown this Galanthus. Is it the same as Galanthus octobrensis?

Rye.

F. H. C.

[Galanthus cilicicus is a species from Cilicia, and octobrensis a variety of the common Snowdrop.—Ed.]

SEDUM PULCHELLUM IN MIDLOTHIAN.

THE true Sedum pulchellum is a comparatively scarce plant, but I saw a good specimen of it lately in the garden of Mr. Robert Lindsay of Kaimes Lodge, Midlothian. It is one of the United States species, and, unfortunately, rather tender—a fact which probably accounts for the rarity of its appearance in gardens. It is of evergreen habit, varying a little in character, some plants being trailing and others more erect. The branches are rather slender, while the rosy purple flowers are on a branching cyme, and are about half an inch in diameter. The leaves are thickish and rather pointed in form. It would appear to require a

sheltered position, and it is desirable to protect it from excessive rainfall in winter by a sheet of glass placed overhead.

S. ARNOTT.

NEW BEGONIAS AND THE WEATHER.

THE past summer has been truly disastrous for the general run of outdoor flowers. The Begonia alone has been but little affected by the rain and cold, and never yet has its superiority over all other flowers, from the point of view of resistance to the too frequent intemperate summer weather of the north of France, been more conclusively proved. Neither hail nor rain has been able to spoil it, or, at most, but temporarily. After the heaviest rains but very few flowers were destroyed, and, others immediately opening, the vacant spaces were at once filled. At the time of writing (the end of September) beds of Begonia semperflorens (Triomphe du Belvédère, elegans, and Triomphe de Boulogne) are in splendid condition, and have been so all the summer; not a plant is spoiled. A stand carrying 250 varieties of double Begonias is still very beautiful. It should be noted that all these Begonias flower continuously from the beginning of June. Now what, on the contrary, can be said for their neighbours the Pelargoniums, Cannas, &c., if not that they present a truly pitiable aspect, and in order to recall their few days of beauty the memory must be carried back to the early summer, before the middle of July.

The experience of the last two years abundantly proves the superiority of the Begonia. In the north of France Begonia semperflorens is decidedly without a rival for garden decoration. Those who complain that its colouring is too dull certainly do not know the varieties which I have mentioned above. It is impossible to find a fresher and prettier pink than that of Begonia elegans. Triomphe du Belvédère is of dwarf habit, with red flowers and bronze foliage; Triomphe de Boulogne of medium height, with deep pink flowers and foliage of a brilliant purplish red; the effect being most harmonious. Although I have tried nearly all the varieties I have not yet found any

better than these three. Mention must, however, be made of a recent plant, *B. Lubeca*, which very much resembles *B. elegans*, but which is semi-dwarf, and throws out many suckers from the root, a valuable quality in plants used for massing. For these reasons I think it will be interesting to follow up this novelty.

During the past two or three years we have welcomed the appearance of a large number of double *Begonias*, both in France and abroad. Up to the present, England alone has been able to rival our producers, one of the best of whom, M. Crousse, of Nancy, is retiring from business. It is to be hoped that his successor will continue his work with the same success in his nursery at Vésinet.

On the occasion of our horticultural exhibition I had the pleasure of meeting the Rev. Edwin Lascelles, one of the most celebrated English producers of *Begonias*. He greatly admired our double *Begonias*, taking exception, however, in a general way to the want of vigour and poor habit of our plants produced from seed. As this is exactly the fault I have to find with the English novelties, I think the cause will be found in the difficulty of acclimatising the plants, for, in my own case, cuttings of a large number of English varieties furnish vigorous specimens, while others, it is true, remain very delicate.

Complaint is also made that the flower-stalks of our French novelties are too long and consequently too flexible. This is a real fault, but very few large-flowered double *Begonias* escape it, and I must confess that, in my opinion, neither race possesses any advantage over the other.

The English novelties, as I stated in a former article, showed a marked superiority in the deeper coloured varieties. This year, however, our producers register a success in this direction with, amongst others, Jarry Desloges, of which the velvety appearance and brilliance equal, if they do not excel, those of *Nero*, *Lord Llangattock*, &c. On the other hand, we have not yet plants equal to *Picotee* and *Samuel Pope*, but it must be said of our neighbours that they have obtained nothing better than these two old *Begonias*. *Mistress James*, *Partbury-Marabella*, &c., can be considered, without doubt, as interesting gains, but they are not so good as their parents.

But what a number of beautiful double *Begonias* have been raised in France during the past few years. Among the best are *Mme. Emile Nicolas*, whose deep rose-carmine flowers have an enormous white centre; *Nouveau Jeu*, one of the most beautiful *Begonias* known, free-flowering and vigorous; *Univerael*, a fine large-flowered plant; *Merveille*, *Mme. Charles Lepidi*, *Gabrielle Pierrette*, a splendid plant with large white flowers; *Hélène*, *Thérèse Benoit*, *Mme. Léon Gosgean*, *M. Tranchant*, *Mousseline Explosion*, *Princesse Tatiana*, *Avenir Apollon*, *Mme. A. Tarbary*, *Général Annenkof*, *M. Luby*, *Carolus Duran*, *Roi de Siam*, *Welleda Unique*, *Avant Garde*, *le Klondyke*, &c.

R. JARRY-DESLOGES, in *Le Jardin*.

## A YEW PERGOLA AT MONTACUTE.

THE illustration depicts a pergola such as is seldom seen in gardens; it is a natural arching of Yew, and is a quaint picture in beautiful Montacute, the residence of Mr. W. R. Phelps. At Montacute walled courts or terraces com-

mand extensive views of the surrounding country. Clipped Yews are one of the chief features of the place, and add much to its interest.

## THE ROSE GARDEN.

### JOTTINGS ABOUT ROSES.

IN gardens where large numbers of beds are devoted to the costly systems of sub-tropical gardening and the use of tender plants generally, one not infrequently hears complaints from gardeners of being short-handed, and, in consequence, overworked. Indeed, shortness of labour seems a general complaint in the majority of gardens, and it is there-



A YEW PERGOLA AT MONTACUTE, SOMERSETSHIRE.

fore surprising to find how unwilling their owners often are to give up the use of tender things, which are always troublesome and expensive to maintain and keep through the winter, in favour of the many noble hardy plants, in every way more fitted to stand our changeable climate.

The question of planting large permanent beds with hardy flowers is of more than passing interest, and, as I hold that we cannot accomplish this successfully if we overlook the claims of the vigorous semi-climbing and shrub-like *Rosea*, I shall not be out of place if I deal with the subject here.

Looking back during the last decade, it is astonishing to find what a number of grand *Rosea* of hardy and luxuriant growth have been raised, and there is no need—provided we use these rightly—for our flower-beds to be flat and unimpressive.

First of all, however, we must break away from all ideas of compactness and formal rows and use these free-growing *Roses* in conjunction with the nobler hardy flowers, especially those which are fine and enduring in leaf and will thus have a good effect during winter. Bearing in mind that the beds will probably stand undisturbed for some years, their preparation must be thoroughly done. The minimum depth of good soil should be 3 feet, and on cold, wet soils it will be necessary to ensure that the beds are well drained.

One of the best and most striking examples of a large permanent bed that I have seen as yet was formed by grouping a few plants of that magnificent hybrid *rugosa*.

CONRAD FERDINAND MEYER,

raised by one of the most skilful rosarians on the Continent, Dr. Muller, and distributed by Herr

Otto Froebel of Zurich in 1899. One of the earliest to flower, each plant forming a bold and vigorous shrub or small tree, this variety is very suitable for grouping in the most exposed positions, and will relieve any lawn of flatness. With its splendid La France-like flowers and its ample foliage, it is worthy of a prominent position in any garden, whilst it is, moreover, perfectly hardy, and requires no protection whatever. Somehow or other this *Rose* has become known in nurseries under the erroneous name of *Consul F. Meyer*. In the current volume of the *Journal of the Royal Horticultural Society* there is, amongst those invaluable "Notes and Abstracts" (page 290), an interesting note about this *Rose*, taken from the well-known German gardening paper *Die Gartenwelt*, which shows how much it is appreciated in Germany.

As I have already pointed out, the use of such a strong-growing *Rose* as this affords an opportunity of planting with it some of those bold perennial plants which are good in effect all the year through, and this was done in the case of the bed referred to above, which had a broad fringe of one or other of the hardy *Megaseas* (*Saxifraga*) around it. This is only a typical example of how easy it is to form permanent beds of grand effect, which will give an added charm to many a large garden where nothing but prim and stiff beds were previously to be found. A walk through any of our best *Rose* nurseries will soon make apparent to anyone how very valuable are many of these

### SHRUB-LIKE ROSES

for this particular purpose, especially those which have the great advantage of being perpetual and hardy. The *rugosa* tribe are particularly valuable either when treated as shrubs or grown as large standards. Those which I can recommend with confidence are *Blanche Double de Coubert*, *Mrs. Anthony Waterer*, *Mercedès*, and *Thusnelda*, the last two varieties not being very well known as yet. I have seen some handsome beds made by using these *rugosa* *Roses* in standard form. One bed was composed of half a dozen fine standards of the exquisite free-flowering *Blanche Double de Coubert*, the ground beneath being hidden with the rich-toned leafage of *Heuchera glabra*. It requires but little thought to call to mind many fine-leaved hardy plants which associate well with these splendid vigorous *Roses*. The hardy forms of the

### MEGASEAS (SAXIFRAGES)

are always good in effect, and give bright colour after the first frosts of autumn and winter. Their

great merits are often forgotten, and one but rarely sees them employed to the best advantage. In "Wood and Garden" Miss Jekyll gives us proof of their great usefulness, and points out the enduring beauty of their foliage. No plants are better fitted for the purpose of edging bold groups of Roses than some of the hybrid forms raised by Mr. T. Smith in his far-famed Irish nursery. To mention a few of the sorts: Sturdy, Progress, Campana, Distinction, and hybrida splendens are all excellent, not too strong in growth, and therefore more suited to this treatment. Croesus, the smallest of all, has very lovely foliage, and is such a miniature that it could well be used as a ground-work to the dwarfier Tea Roses. In addition to the bold-leaved Rockfolies just named, there are many other suitable plants whose beauty of form is better displayed when they are grouped either in picturesque masses amongst the Roses or placed as a bold edging. Such are the Heucheras—glabra, Richardsoni, micrantha, zabeliana, and others—with their massive deep-tinted foliage constant through all seasons. Flag Irises, too, are always good when thus treated, and, as may be seen in the Bath Botanic Garden, form a good contrast to the Roses, and do not appear to impoverish them. Tellima grandiflora purpurea is striking when thus used, and only surpassed by a new form which I recently received from Messrs. Lemoine under the name of Tiarella (Tellima) purpurea major marmorata, whose foliage is resplendent with silver and purple marbling. Then there is a host of Ivies, and if we are careful only to choose kinds of cheerful colouring and grow them upon their own roots, the effect will be good in any position.

Above all, when forming the beds, we must not omit the many beautiful flowering bulbs which will give colour in spring. It is almost unnecessary to give a list of the Roses suitable for this planting. The rugosa varieties, as I have stated, are invaluable, because the majority of them are continuous blooming and very hardy, so also are Dawn, Mme. A. Carrière, Reine Olga de Wurtemberg, Aimée Vibert, Purple East, and the hardiest of the race of Dijon Teas, amongst which I might mention Bouquet d'Or as an excellent example. All these are perpetual, and will make grand shrubs if not allowed to suffer too much from the pruning-knife. We want still more of these shrub-like Roses with a perpetual habit, as though such exquisite kinds like Una, macrantha, Andersonii, and the now numerous ramblers form splendid bushes, their beauty is so soon over that they are really more suited for the less formal parts of the garden. People in this country have grown so accustomed to the use of trim and symmetrical beds within sight of the windows of their houses that one seldom sees anything but this common place way adopted. I have attempted in these notes to show how those who have sufficient space at their command can break away from the old ways of planting such beds and get good effects, as well as real beauty by using the splendid shrub-like Roses which hybridists have bestowed upon us, with inexpensive hardy flowers.

Worcestershire.

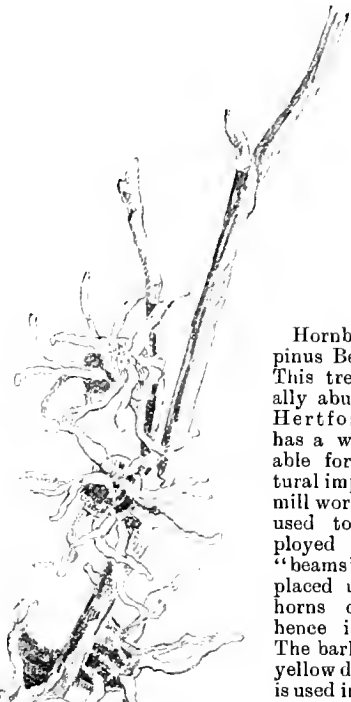
ARTHUR R. GOODWIN.

USES OF BRITISH PLANTS.

CUPULIFERÆ.

OAK (Quercus Robur).—The two varieties (Q. R. pedunculata and Q. R. sessiliflora) are too well known to need description. The wood for timber and the bark for tanning, as well as the acorns for pigs, have been used for ages. The fine avenues of Oaks in and near Cape Town were first planted by the Dutch for the sake of the acorns. In "Domesday Book" the ancient Oak forests were described as being of so many "hogs," i.e., capable of supplying acorns. The soft "Oak apples," as well as the hard galls, appear to have been used in the Middle Ages for making ink. Ink with wine was an antidote for an adder's poison. Also, ink, honey, and the white of an egg was used for sore eyes. The "bog Oak" of Ireland is stained black with tannate of iron, the same thing as ink.

Beech (Fagus sylvatica).—This familiar tree has a close-grained wood, but is not much used as timber, because changes from drought to moisture tend to its decay rather rapidly; but for furniture, screws, &c., and other work of coopers and turners, much use is made of it. It is remarkable for its great durability under water, hence its applicability for piles. In France sabots are made of it. After being soaked in water and then subjected to smoke it has proved durable as planks. On the Continent charcoal is made from



Hornbeam (Carpinus Betulus).—This tree, especially abundant in Hertfordshire, has a wood suitable for agricultural implements, mill work, &c. It used to be employed for the "beams" or yokes placed under the horns of cattle, hence its name. The bark yields a yellow dye, which is used in Sweden.

SALICACEÆ.

Willow, Osier (Salix viminalis and sp.).—Sever: 1 species, varieties

or hybrids, for many of the last are wild, are grown for the long annual shoots. The different degrees of slenderness or otherwise renders them useful for various kinds of basket work, hampers, &c. In some, as Rose Willow (S. Helix), there is a considerable amount of the substance salicin, which is used medicinally, having analogous properties to those of Cinchona Bark for fevers. The Willows grown for their branches are S. alba, S. cinerea, and S. fragilis. These are converted into "pollards," the shoots being cut every five or six years, when they are sufficiently large for fences, casks, poles, &c. The bark of Willows contains a considerable amount of tannin, and is useful for making leather.

BETULACEÆ.

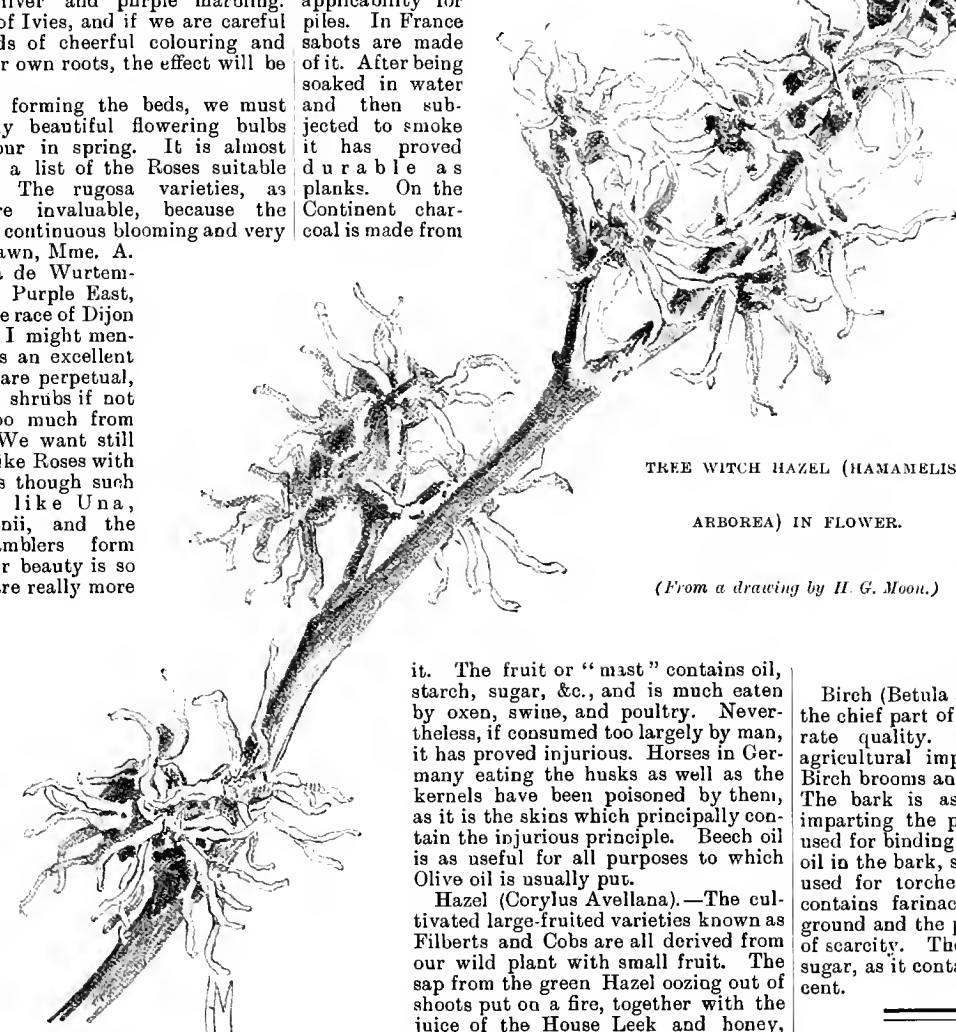
Birch (Betula alba).—The timber of this tree is the chief part of any service, but it is not of first-rate quality. Wheelwrights and makers of agricultural implements employ it. Of course, Birch brooms and school birches are well known. The bark is astringent and used for tanning, imparting the peculiar odour to Russian leather used for binding books. There is a great deal of oil in the bark, so much so that it has often been used for torches in high latitudes, and, as it contains farinaceous matter, the bark has been ground and the powder mixed with flour in times of scarcity. The sap is sometimes tapped for its sugar, as it contains a small quantity, about 2 per cent.

G. HENSLOW.

THE WITCH HAZELS.

(HAMAMELIS.)

AMONGST an array of winter-flowering shrubs, such as the Winter Sweet (Chimonanthus), golden winter Jasmine, Cydonia japonica, Cornus Mas, Nuttallia cerasiformis, Clematis cirrhosa and Laurustinus in variety, there are none that take



TREE WITCH HAZEL (HAMAMELIS ARBOREA) IN FLOWER.

(From a drawing by H. G. Moon.)

it. The fruit or "mast" contains oil, starch, sugar, &c., and is much eaten by oxen, swine, and poultry. Nevertheless, if consumed too largely by man, it has proved injurious. Horses in Germany eating the husks as well as the kernels have been poisoned by them, as it is the skins which principally contain the injurious principle. Beech oil is as useful for all purposes to which Olive oil is usually put.

Hazel (Corylus Avellana).—The cultivated large-fruited varieties known as Filberts and Cobs are all derived from our wild plant with small fruit. The sap from the green Hazel oozing out of shoots put on a fire, together with the juice of the House Leek and honey, was put into the ear to cure deafness, while the burnt bark powdered was blown into the nostrils to stop them bleeding in the Middle Ages. The straight shoots of the underwood are useful for walking sticks, crates, hurdles, and cask hoops. Burnt they supply artists' charcoal, while knotted roots are used for veneering.

the eye and interest visitors so much as the different kinds of Witch Hazels. Of course, the untimely flowering of the Glastonbury Thorn is always of interest, but even that is a Hawthorn after all, the point being its blossoming at the birthday of the year, or even earlier. The different species of Hamamelis are natives of North America, North China, and Japan, and, with their less well-known relatives *Bucklandia*, *Corylopsis*, and the *Liquidambar*, are found in our gardens to-day. The popular name of Witch or Wych Hazels seems to have become attached to them from some old superstition that they afforded the twigs used in the ritual of divination. Be this as it may, the plants themselves have no botanical affinity with true Hazels (*Corylus*), but with the three other genera above named they enjoy a small natural order (*Hamamelidae*) to themselves. It is, however, as ornamental garden shrubs that they best deserve notice, two species being very beautiful in winter. These are *H. arborea* and *H. japonica zuccariniana*.

*H. ARBOREA*, in its native habitats in Japan, grows 15 feet to 20 feet in height, and has purple-red flowers (calyces) with crimped or crumpled petals, like little bits of gold wire. The branches are olive or greyish brown, and the buds are of a rich fox colour. Even quite small plants are thickly set with their quaint flowers, and look very pretty on the grass with a background of sombre shrubs. A little branchlet or two in an old bronze bowl on the breakfast table is a surprise to most people fond of flowers. The other species,

*H. JAPONICA*, has a more lax habit and pale lemon-yellow petals, but is at the same time extremely graceful and effective. It is wild in North China and Japan. *Zuccariniana* is a variety. A third kind is the better known

*H. VIRGINIANA*, which flowers in September just as its leaves die off a mass of pale golden yellow. It is a strong grower, soon attaining a height of 10 feet or 12 feet. *H. arborea* and *H. japonica* make attractive plants for pot culture in a cold or cool house.

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

#### PLANTING.

FROM various causes this work has been considerably delayed. It should now be done whenever the weather permits. In the planting of standard trees the stations should be well prepared, 3 feet in diameter and 2 feet in depth, breaking up the soil well at the bottom of the hole. In planting the trees keep the roots near the surface, mixing in amongst them some good loam and wood ashes. Do not use any manure when planting, but mulch the trees after. Stake the trees to prevent waving about, and examine the ties later when the soil has settled down. I have not seen Mr. Beckett's latest invention, which should have a great advantage over tying with twine. Standard trees should be planted about 25 feet apart, more or less, according to the variety; pyramids or bushes, 9 feet to 12 feet.

#### PRUNING.

Standard trees in orchards are often neglected, or are only thinned occasionally, and then too severely. They should be looked over annually, removing any branches that cross each other and all useless spray. Any large unfruitful branches should be removed with the pruning saw, smoothing over the surface of the cut with a pruning knife, and afterwards painted over with a mixture of clay and tar. Young standards should have any weak growths spurred back, leaving about six of the best placed to form the tree. Shorten the leaders to about one-third their length. Any newly-planted trees should not be pruned before March, and should then be carefully done.

#### PYRAMIDS AND BUSHES.

These will require little pruning if proper attention was given them during the summer.

Any young shoots overlooked should be spurred back to two or three buds, according to the variety. Any old trees that have become crowded with old spurs or branches should have a few of the worst removed annually. Gather all the prunings up and burn them, fork up the surface lightly, and give a good dressing of wood ashes. Dust the trees over with lime when damp, or syringe them with the caustic soda and potash solution so often recommended in these columns.

#### RASPBERRIES.

Where the planting of new quarters has been delayed it should now be carried out. Trench the ground, working in plenty of manure, and if the soil is heavy use plenty of old hot-bed manure and wood ashes, as the ground cannot well be too rich for these plants. Allow about 5 feet between the rows and 1½ feet between the plants, cutting them down to 6 inches in the spring when breaking into growth. The old canes which were thinned in the autumn will only require tying, leaving the canes about 6 inches apart, and topping the shoots, giving them a good mulch afterwards.

#### BUSH FRUITS.

All bush fruits should now be pruned. Thin out old Gooseberries, spurring in the side shoots to two buds. Thin those the most that are wanted for dessert. Give the trees a dusting of lime and soot, and repeat when necessary, as this helps to keep off the birds. Red and White Currants should have the side shoots spurred in to three buds, and the leading shoots cut back to 6 inches. Black Currants only need some of the old wood removed, leaving the young and vigorous shoots, as these produce the finest fruit. Give all the trees a good dressing of rotten manure, digging lightly in, taking care not to damage the roots of the Black Currants.

*Impney Gardens, Droitwich.* F. JORDAN.

## FLOWER GARDEN.

### ROCK GARDEN.

STRICT attention should be paid to cleanliness, or at this period the rock garden will present an untidy and uninteresting appearance. Any fallen leaves that have been wind-swept into the pockets should be regularly removed or they will smother weak growing plants. All weeds should be removed, and frequently stir the surface soil which has been battered down and discoloured by the persistent rains.

The valuable *Iris reticulata* and *I. stylosa* are now coming into flower in many places, and will be followed by such as *Iris histrio*, *I. caucasica*, and the sweet-scented *I. persica*. Neat supports should be given to the flower-spikes, and if the plants are exposed to rough winds it will be advisable to screen them. A few short branches of an evergreen tree placed in the soil to windward will be sufficient protection. Slugs are very destructive; many baits and methods are recommended, but it is doubtful whether anything is more efficacious than searching for them on a dry evening with a lantern, and a small vessel of lime to drop the slugs into. Moles are a great nuisance in the rockery, uprooting valuable plants. They undoubtedly devour a quantity of wireworms and earthworms, but in gardens the remedy is worse than the evil. At this time of the year they have a great liking for the rockery. Traps should be set in their main runs and at such places as where they cross under a path. A few lengths of stout Bramble or some barbed wire pushed into their runs will often drive them away. Mice will soon be at the Crocuses. When other traps fail to catch them the old-fashioned figure-four trap baited with a piece of toasted cheese is usually successful.

#### HARDY FERNS,

unless there are special reasons, such as the close proximity of the house, or there are spring-flowering bulbs planted among them, I would not recommend clearing away the dead fronds until just before new growth commences. Where spring bulbs are grown among the Ferns many of these will soon be growing apace, and a top-dressing should be applied without delay. Snowdrops are very early

this year. Last year I moved a large quantity as soon as they finished flowering, and they now promise to flower much more freely than in previous years.

#### RANUNCULUS.

Well-drained beds of rich, light soil should now be prepared for the varieties of the garden *Ranunculus* (*R. asiaticus*). Except in very warm localities it is not wise to plant the roots until towards the end of next month. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## INDOOR GARDEN.

### CLIMBING PLANTS.

IT matters very little whether these be occupants of the plant stove, greenhouse, or conservatory at this season of the year, they all require diligent attention. In some instances it may be necessary to free them from mealy bug, scale, and other insect pests with which occasionally they become infested. Pruning also is necessary, that is to say, a great portion of the weak superfluous growth should be cut out. Among the climbers of which the growth occasionally gets overcrowded, is *Stephanotis floribunda*, *Tacsonia Van Volxemi*, *Schubertia grandiflora*, *Hoya bella*, *Lapageria alba* and *rosea*, *Cobaea scandens*, *Clematis indivisa*, and others of a similar character. *Allamandas*, *Bougainvilleas*, *Habrothamnus*, *Plumbagos*, and climbers of this kind require to be pruned well back, that is to say, cut back the growths made the previous season to within one or two eyes of their base, and encourage the production of shoots that will be strong and floriferous during the following season. Consideration should be given to *Clerodendron balfourianum*, as the shoots of this should not be spurred back as is recommended for *Bougainvilleas*, &c. A few weak growths may be cut out altogether, and the weak points of others be shortened back; but as they flower mainly from strong, well-ripened growths, the object should be to encourage this, and to utilise it to advantage.

#### PALMS.

Generally these plants are so much in request for house decoration that, at this season of the year—unless more than ordinary care be bestowed upon them—they suffer to such an extent that, whatever after attention is given they seldom recover from the seriousness of the check received. During the present more than any other season of the year Palms, especially *Kentias*, *Arecas*, and *Seaforthias*, will appreciate, and respond to, the advantages of a little extra warmth, with plenty of syringing. Chemically prepared manures, either solid or in liquid, are applied to stimulate growth, but preferable, perhaps, is liquid made from sheep manure, together with an occasional dose of soot water, weak doses in every instance being recommended. Occasionally syringe the plants well with soft soap water as a means of checking the further spread of scale, as well as loosening any that already may have fixed itself upon the fronds.

#### TREE CARNATIONS.

For blooming from autumn until the spring of the following year few plants are so useful as these. The one thing necessary to produce a profusion of flowers is to have good plants, and to do this their propagation is advised to be commenced as soon as possible. Methods of propagation to suit convenience will naturally require to be considered, but there can be little doubt as to the advantage of inserting four or five cuttings around the sides of 3-inch pots, in a compost of equal parts of loam, leaf-soil, and sand, peat being added only when the loam is of a clay-like nature. Plunge the cutting pots in cocoa-nut fibre refuse in the propagating frame, which keep close, and the soil in the pots moderately moist. In beds of sand, heated from hot-water pipes below, cuttings by thousands can be inserted, but when rooted and afterwards lifted for potting up, they seldom commence rooting so freely and so early as do those that are propagated in pots in the compost recommended. J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*



**KITCHEN GARDEN.**

THE weather in this district is still such as retards kitchen garden operations, several degrees of frost being registered every morning, and thawing towards noon. This makes it impossible to do any digging, planting, or operations of that nature. Where the climatic conditions are not so troublesome attention might be turned to the making of a new plantation of Horse-radish. In many gardens the cultivation of this vegetable is neglected, the roots being left to their own devices year after year. By lifting every third season much finer roots are produced, and are sure to be appreciated when they are sent to the kitchen. The ground should be deeply trenched and a liberal supply of good manure placed at least a foot from the top. The strongest crowns should be selected and cut into lengths about 6 inches long. Side roots on the sets should be rubbed off, and the sets planted at least 1 foot deep.

**RHUBARB.**

For new plantations the ground may be treated as advised above, choosing a plot which has not grown this vegetable for some years. After planting a good mulching should be given, and none of the stalks should be pulled the first season. Where heated pits are available, they may now be got ready for the forcing of early vegetables—Carrots, Turnips, Radishes, &c. Heated pits are now a necessary equipment to every well-appointed garden, entailing as they do much less labour than the old system of hot-beds. The earliest Peas and Potatoes are here grown in pots in the fruit houses, and are succeeded by those now being sown and planted in the pits.

**TURNIPS.**

A sowing of an early variety should be made at once, Early Milan being as good as any. Sow rather thinly broadcast, having the soil raised to about 8 inches from the glass.

**CARROTS.**

These much-prized roots may be also sown now on soil raised as advised for Turnips. Several inches of sea sand should be spread on the surface and forked in. The seeds may be sown much thicker than Turnips, and a slight draw with a rake will be a sufficient covering. The pits to start with should be kept at a temperature of 50°. If the soil is at all dry a slight watering may be given, as this will ensure quicker germination.

**PARSLEYS.**

Owing to the excessive wet during the autumn months this has kept badly in many gardens, supplies being drawn entirely from plants in frames. Should the stock be running short plants may be lifted and put thickly into boxes, and if placed in heat will soon start into growth. A sowing should also be made now, and placed in a temperature of 60°. As soon as the plants can be handled they may be pricked into a warm pit. A supply from this sowing should also be available for planting out in April on a warm border that has been deeply dug and manured.

THOMAS HAY.

*Hopetoun House Gardens, N. B.*

**CHRYSANTHEMUMS.**

**TREATMENT OF CUTTINGS.**

THE majority of the cuttings which were put in the propagating pits early in the month will soon be sufficiently rooted to remove to a cooler and more airy position. Any which have failed to strike or have not made a good start should be discarded and others put in to take their place. I have always found the best results from those plants which start away freely from the first and are never allowed to receive any severe check throughout their season of growth, consequently unless any particular variety is scarce all doubtful ones are at once discarded and replaced by the best cuttings at command. The number of each variety to grow will have to be determined before too late in the season. Much, of course, will depend on the particular use for which they are likely to be required. If it is the intention of the grower to enter into competition this is a matter of importance,

and as many of the leading societies are now offering valuable prizes for a given number of blooms, to be arranged in vases, a goodly number of each sort must be grown to ensure each individual bloom being of the high standard of excellence which is necessary if high honours are to be won. As I have often previously advised it is better to grow several of the most approved sorts rather than a large number and one or two of a kind; and even when a collection is grown for home use only, a much better display can be made when the best only, and several of these, are grown.

**SPECIMEN PLANTS.**

If cuttings were inserted early in December last, as should have been the case, these will now be well rooted, and require potting on into 3-inch or 4-inch pots. They will require to be grown on in a gentle heat for some time yet, as it is always essential to build up the foundation of the plants as early in the year as possible, but at the same time undue forcing must be strictly guarded against. A light position near the glass should be given, and after the regulated height of stem has been assured the points should be pinched out to induce them to break.

**BORDER VARIETIES.**

Those which have done duty in the open ground during the past summer and autumn should now be lifted and potted up, if not already done. Many of these varieties will, of course, succeed fairly well if left in the ground through the winter, but if the best results are to be obtained the above method must be resorted to. For this purpose clean, well-drained 3-inch pots should be used, and a suitable compost will consist of loam and leaf-soil in equal proportions passed through a three-eighths of an inch mesh sieve, with sufficient road or silver

sand to keep the whole in a porous state. When dividing the plants select only the best pieces with healthy young shoots round them. Cut the roots back so that they may be easily placed in the pots, and pot moderately firm. As one sort is completed correctly label each pot and sprinkle a little silver sand over the surface. A cold frame will be the most suitable place to arrange them in for the winter, and admit air freely on all favourable occasions, removing the lights entirely on bright, fine days. Thoroughly cover and protect at night during severe weather, and any plants left in the ground should have cinder ashes heaped round the stools. E. BECKETT.  
*Elstree, Herts.*

**ORCHIDS.**

**MILTONIA.**

NEW roots are now being emitted from most of those that flower in the early autumn, such as *M. Clowesii*, *M. candida*, *M. spectabilis*, *M. Regnelli* and its many beautiful forms, and the hybrids of the above species. Any repotting or dividing necessary this season should be taken in hand, and those not requiring potting should have the

surface material removed, so that the young roots may have fresh compost to take hold of. A compost made up of two-fifths good fibrous peat, two-fifths clean live sphagnum (both well chopped), and one-fifth good leaf-soil, the whole being well mixed together with a little coarse sand, answers well. Pots should be the receptacles used, half filling them with chopped rhizomes that have been prepared as previously advised. Those plants that have many old pseudo-hubs should have all removed, with the exception of two behind the leading bulb. The most favourable time to cut away and reshape one's plants is when they are being repotted. The compost should be made moderately firm and kept below the rim of the pot to allow of a surfacing of chopped sphagnum. The intermediate house provides suitable quarters for them all the year. Water should be carefully applied till the new roots have taken a good hold of the compost, then they will take water freely till the completion of growth.

**PROPAGATION.**

Miltonias can be increased by cutting away the leading bulbs just when new roots are being thrown out, carefully working out with a pointed bone, without unduly disturbing the old plant, any roots attached that may have entered the compost. The young plant should then be potted in as small a pot as possible and kept fairly dry at the roots for some time. A slight spray overhead daily will be very beneficial to them. After the leading bulb has been cut away the old plant should be kept dry till it makes a new lead, when it should be repotted. This rejuvenation often gives fresh life to plants that were fast deteriorating. When there is a desire to increase the stock, this method is far quicker than that of propagating



ROSE FLORA ON GARDEN HOUSE BY BOLD GROUPING OF CAMPANULA PERSICIFOLIA AND OTHER FLOWERS. (See page 58.)

from the back pseudo-bulbs. I have had fine bulbs produced from the back portion the first year that have flowered well, and the front part with care will often develop a finer growth than the preceding one.

#### MILTONIA VEXILLARIA.

This summer-flowering Orchid, now growing freely, will still require watering with great discretion, increasing the supply as the days lengthen and light becomes stronger. Any plants that were potted in the past summer into small pots may now, if the growth is satisfactory, be given a larger pot, using the same material as advised above. The greatest care should be exercised in repotting not to damage any roots. The dreaded spot oftentimes seen on this variety generally arises from injudicious watering during the short days and not enough ventilation. It is well suited in such a temperature as the Cattleya house affords. A strict watch should be kept for thrip, which will in a few days disfigure the growth and make it an unsightly object rather than one of beauty. W. P. BOUND.

*Gatton Park Gardens, Reigate.*

## THE FRUIT GARDEN.

### APPLE ADAMS' PEARMAIN.

**M**OST people have a desire in gardening matters to run after that which is new, whether in fruit or flowers, simply because of the charm of novelty, and not always because the new product is better than the old. This natural desire is most commendable, and a potent influence in urging men on to greater triumphs. At the same time, this desire, if unrestrained, is apt occasionally to do harm, by causing old and sterling varieties to be neglected and lost sight of. This is more or less the case with the subject of this note—Apple Adams' Pearmain. Years ago, when selecting late dessert Apples, this one was scarcely ever left out of even the most limited collection. I am of opinion that it should still be included in the best twelve dessert sorts. It is large in size, handsome in shape (a true Pearmain), and the colour is most pleasing—a golden skin, covered with a delicate russet on the shaded side. It is one of our most prolific bearers, even in a young state, and the flavour is excellent. Its best season is from January to March. O. THOMAS.

### GRADING AND PACKING FRUIT AND VEGETABLES.

THE Board of Agriculture have just issued the following important leaflet on the above subject:—

Intensive cultivation has been carried in many places to a high pitch of excellence, and British horticulturists pride themselves, justly, upon their skill as producers. Admirable and necessary as the highest cultivation must always be, yet something more is required to ensure complete commercial success, namely, the conveyance of the produce in the best possible style to the market or to the consumer. It is at this point, too, many fail, and a material proportion of unprofitable sales is mainly attributable to neglect in presenting goods in the most satisfactory manner. Proofs of this defect are evident in every British market, and commonly the produce of the home grower may be seen in direct contrast with that of his foreign competitors, to the conspicuous disadvantage of the former. It is the purpose of the following notes to give some directions that, with the exercise of intelligence in carrying them out, may assist in improving the selling value of both fruits and vegetables as produced in this country.

To aid in grading fruits to the best advantage it must be assumed that the preliminaries of successful cultivation have received due attention. The selection of the best varieties, suitable sites

and soils, with every possible care in protecting the trees from attacks of insects and diseases, demand the cultivator's utmost skill and unceasing watchfulness. Finally, in preparing for the actual work of grading, the method and time of gathering should receive the strictest attention, or much of the other labour will be reduced in value. It is not sufficiently recognised how readily all fruits are injured by rough handling. Even hard, unripe Apples and Pears are soon bruised, and not only do these marks show as serious defects in the appearance of the fruits, but the keeping qualities are also affected.

One general rule is applicable to all fruits, and that is, they should never, if it can be avoided, be gathered when they are wet, especially if they have to be packed for sending a long distance.

#### IN PREPARATION FOR SORTING.

The fruits should be taken and carefully spread on a table or bench, which may slightly slope to the front, and should be of a convenient height for the packer to stand at. The soft fruits must be conveyed to the sorting room in shallow trays or baskets, so that they can be graded direct without turning them out. When experienced hands are employed some degree of sorting can be done at the time of gathering, thus saving further handling or removal of the fruits, and the grower will in every case endeavour to reduce this to the minimum.

Several matters have to be considered in the actual work of grading, and an intimate knowledge of the characteristics of varieties is essential to the best results. The effects of seasons on large crops also demand attention; for the second grade of one crop might rank as the first of another. It is impossible to lay down a rule that would constitute a standard equally reliable under all conditions, but a general idea can be given of the relative values of different grades under similar circumstances.

The points of importance in classifying the best fruits are: (1) Freedom from injuries and blemishes. (2) Good size and even form. (3) Colour. (4) High quality with ripeness.

The first two are essential to all high-class fruits, and no defective, distorted, or undersized samples should be allowed in the leading grades of any kind.

The third quality is a special one, which always possesses a marked value in fruits for dessert, and even amongst some used for cooking or preserving, as in Apples, Red Currants, Raspberries, and Strawberries, for example. A richly-coloured sample, though only of moderate size, if free from defects, will often possess a higher market value than larger and duller fruits. Cox's Orange Pippin, for instance, if sold in two grades, one large and dull or greenish yellow, and the other a size smaller, but in its best colour, will command the larger price for the latter; and this is true of many other fruits where colour is a characteristic that is sometimes deficient in the larger sizes.

As regards the fourth point, mere size may also be a secondary consideration, provided the fruits are choice, in perfect condition for immediate use, and free from defects. This especially concerns small packages of dessert fruits, such as the finest Pears, Plums of the Greengage type, ripe Cherries, Peaches, and Nectarines. A special market must be at command for such samples, or they should be sent direct to the consumers or retailers.

The bulk of fruit grading will, however, be mainly concerned with variations in size, provided the essentials of good form and freedom from defects be secured. It is of the utmost importance to ensure that each grade be as uniform throughout as close attention can accomplish, and then the full value of the work is most likely to be obtained.

#### A QUICK EYE AND SOME PRACTICE

under good guidance soon enable a packer to select the various sizes in a uniform manner. Apples in particular can be readily graded into several sizes according to the variety and the crop. Occasionally four well marked grades may be obtained, in other instances perhaps three are secured, and sometimes

only two are obtainable. The difference of a quarter of an inch in diameter will constitute a well marked grade. An American association has adopted as the minimum standard for first grade Apples of the largest types  $2\frac{1}{2}$  inches diameter; while for the smaller types  $2\frac{1}{4}$  inches is the minimum diameter for first grade fruits; in each case a quarter of an inch is allowed between the firsts and seconds. In practice it is found almost impossible to adhere to such exact grading; the general standard and range in size of the crop or variety must be judged, and the graduation founded upon this. These remarks especially refer to Apples for cooking, or dessert Apples equally well coloured, but what has been already said about the value of colour must be remembered, and a special grade selected of uniform size where there is a proportion of larger fruits deficient in that respect.

Most of the details regarding Apples are also appropriate to the grading of Pears, but as a larger proportion of these are used for eating than cooking, they are more adapted for disposal in small packages, and hence repay the greatest attention in uniform grading. Several qualities can usually be obtained from one crop, and it generally pays best to sell in two or three grades, only those rejected in the selecting process being disposed of in bulk. Even when large crops from old orchard trees are being dealt with, a few dozen of the finest fruits carefully packed will help to raise the total returns considerably.

Stone fruits may be selected in various grades. Plums for cooking can thus be sorted into two or three grades, the largest fruit commanding the best market. A good medium size is in demand for bottling, and the smaller sizes are utilised in ordinary cooking or preserving. Dessert Plums and Cherries are readily graduated on the same method, the finest in boxes or small packages, and the others in bulk.

Soft fruits, such as Strawberries and Raspberries, are worthy of equal care, the former being sorted into at least two grades and sometimes into more. The best are placed in punnets, the next in small boxes, and a third grade can be sold in boxes or baskets holding from 6lb. to 12lb. Raspberries may be conveniently divided into two qualities whenever a special sale can be commanded for the best fruits either in punnets or small boxes.

Nearly all other fruits also admit of some grading, even though it be only to the extent of excluding defective and malformed specimens; the results yield a satisfactory reward for the labour and expense.

#### GRADING AND PACKING VEGETABLES.

The benefits derivable from careful and systematic grading are by no means confined to fruits, as vegetables also afford considerable encouragement to those who strive to make the most of them in the same direction. Especially is this the case with root crops, though in a general way the sorting adopted is of a very rough character. Potatoes, for example, are usually picked up in three sizes, the large tubers for sale, the seconds or sets, and the small tubers to be used as food for stock. The large size should be again sorted into two or three grades; it is with them as with Apples, a comparatively small proportion of coarse irregular tubers spoils the appearance of a large consignment. Even shape and uniformity of sample possess a distinct market value, and a medium-sized Potato having these characteristics, together with good quality, will bring a better return than huge distorted tubers of which size is the only recommendation. If an extra 6d. per bushel, or £1 per ton can be secured by such care it often means, with a good crop, sufficient clear gain to more than pay the expenses of cultivation.

A distinction can be made between the best or earliest Turnips and Carrots and the ordinary quality or crop in bulk, by marketing the former in bunches, while the latter are sent in bags or baskets. Onions, too, can be graded in several ways, the best being bunched or made into "ropes," while smaller sizes are sold loose, the smallest ranking as pickling Onions. It is always advisable to have several sizes, each sample fairly uniform, as some buyers have a preference for medium size

bulbs and others for large ones. In selling small quantities by weight the retailers have a difficulty with the largest Onions, and usually find the medium size more convenient. If roots are prepared for sale by being thoroughly cleaned it is a great help, and in any case wherever grading is followed all the best qualities should be so treated, or the chief part of the labour will be nullified.

Peas and Beans should always be graded. Yet this is seldom done by the grower, and, as with many other vegetables, it is usually left to the retailer. Large, well-filled pods of the former are always in demand, and if the colour is good their value is enhanced. But they are too often gathered without due care, and a number of insufficiently developed pods materially lower the value of the whole, while reducing future gatherings. Two or three grades of Peas can be readily formed, according to the condition of the crop and the varieties, some being much more even croppers than others. In supplying consumers direct daily or at regular intervals, it is now becoming the practice to shell the Peas, grade them by means of sieves, and consign to the purchaser in small boxes. Dwarf kidney Beans and Scarlet Runners can be

This refers both to quality, crop, and height, and in town gardens I think the latter most important, as by obtaining an equally heavy crop from a dwarfier haulm is a gain in the right direction. Take the early sorts first. A variety that stands cold—an important point in heavy soils—is Veitch's Acme. It is a new variety that will be found valuable for late May or early June supplies. Acme is dwarf (3 feet), and has a medium-sized pod containing eight to ten Peas of a deep green colour. When on trial at Chiswick it was considered a distinct advance. For years Chelsea Gem has held its own, and the new one is an improvement and the result of crossing a very dwarf early with Stratagem. All growers know what a splendid variety the last-named proved for many years. I now come to a very different Pea—Sutton's Early Giant. This is well named for such an early variety; it is a giant, and its crop is splendid. So far it has proved one of the most prolific varieties. Sown early in February it was ready on May 30, in a bad season; its height is 3 feet to 4 feet, but we top our

height, and very prolific. In the next division such sterling varieties as Carter's Daisy will need few words as regards its crop, quality, and size. It is one of the best of this section, and is so well known that I need not dwell upon its merits. The growth is robust, and the quality is excellent. Danby Stratagem is also another Pea that Messrs. Carter have selected from the original Stratagem; it is very reliable, 2 feet to 3 feet, and has a full Marrow flavour, whilst it is also a great cropper. In the midseason section there is no lack of quality. We have such varieties as Prize-winner, Dwarf Defiance, Centenary Marrowfat, and the new Edwin Beckett (sent out by Messrs. Cutbush), a grand Pea both for crop, quality, and quantity. To this list may be added Veitch's Maincrop, Autocrat (an older variety), and such sorts for late use as Carter's Model, Telephone, Michaelmas, and Sutton's Prolific Marrow, Peerless, and Royal Jubilee.

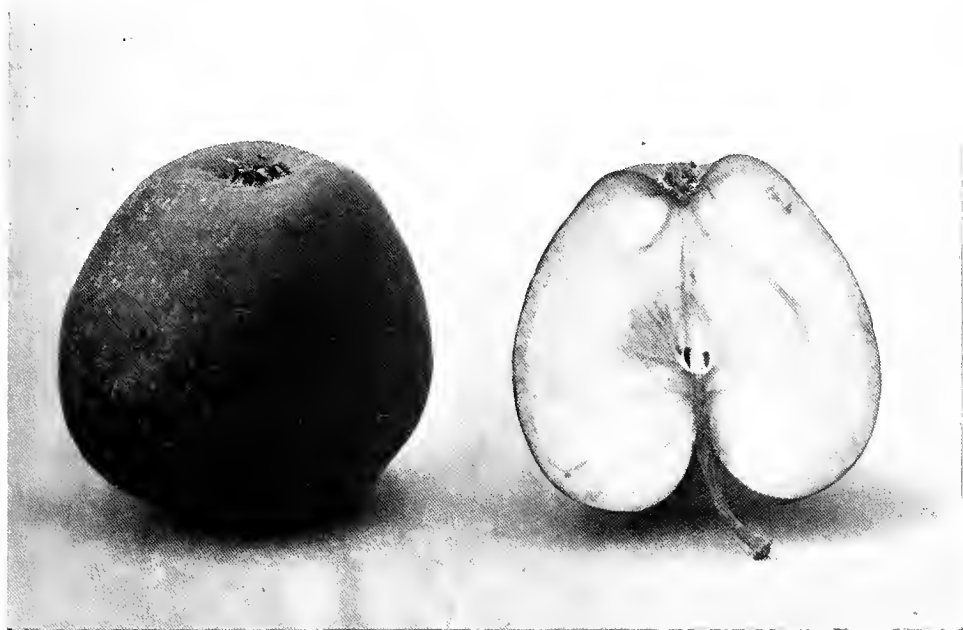
POTATOES.—At a time when fabulous prices are given for new varieties it is dangerous to criticise. I am unable to note the cooking or cropping qualities of the new Northern Star or Eldorado, but they sell well, and should be an acquisition if the vigorous constitution claimed for them is lasting. Discovery I have more knowledge of, and I have been pleased with its perfect freedom from disease and its splendid table quality, but we have others well worth retaining, such as May Queen, a grand first early, and one I shall plant more largely this season. To this may with advantage be added Ringleader and Ninety-fold, and, so far as regards weight of crop for June supplies, it has no rival. Another fine tuber is Ideal. This may be classed as an improved Windsor Castle, and the newer Centenary promises to be a valuable introduction. Of older varieties, Satisfaction, Triumph, and Reliance are all excellent and not fastidious as to soil or situation. A new late Potato, Evergood, is well spoken of. So far I have not grown it. We grow large quantities of Syon House for late use.

CABBAGE is one of the most important vegetables, and may be had good every day in the year. Of course, the earliest Cabbage finds the most favour, and rightly so, as these come in when good tender vegetables are scarce. For spring cutting such varieties as Earliest, April, and Flower of Spring are invaluable. Then there is the excellent Ellam's Early Dwarf, Wheeler's Imperial, and Mein's No. 1, older kinds, but difficult to beat for summer use; Tender and True, Veitch's Matchless, Sutton's Favourite and Little Gem, the Coleworts for early autumn, and for winter St. Martin's—a cross between the last-named and Christmas Drumhead—with such additions as St. John's Day and others.

CAULIFLOWERS AND BROCCOLI are so well known that it may appear out of place to write about them. For early supplies it is difficult to beat Snowball, Veitch's Forcing, and Sutton's First Crop, and for later use Mont Blanc. Purity and Pearl are invaluable, with such varieties as Walcheren and Autumn Giant later.

BEANS are always favourites, and mention should be made of Hackwood Park Success, a Bean of the Runner type. In Broad Beans Sutton's Green Giant is a magnificent pod, and of splendid quality. Of Dwarf Beans Messrs. Cutbush have a grand Bean, both as regards crop, quality, and length of season, in their new Bountiful.

CUCUMBERS are always favourites, and the newer varieties, such as Every Day and Unique, are worth a trial. To these may be added Peerless, Satisfaction, and the old Veitch's Telegraph.



APPLE ADAMS' PEARMAIN. (Two-thirds natural size.)

graded by selecting the long, straight, and even pods for the best samples, in smaller quantities, the bulk going for sale in bushel or half-bushel baskets. (To be continued.)

## THE KITCHEN GARDEN.

### SOME OF THE NEWER VEGETABLES FOR 1904.

**K**ITCHEN gardeners will now be making up the list for the coming season, and it is not so difficult as formerly to make a good selection, as our leading seed houses issue catalogues which may be regarded as quite trustworthy guides. I think that in the present day fewer objections are made to the newer things, which is not to be wondered at, as with increased interest in vegetable culture, greater publicity, and rapid means of communication, a good thing is soon known.

PEAS.—For the past fifteen years I have kept a close watch on the new varieties sent to Chiswick for trial. I have also seen others, and a splendid advance must be recorded.

plants at 3 feet to induce branching out. In due order such Peas as Sutton's Duchess of York and Ideal would follow next, but there are different soils to deal with and northern latitudes. Here the hardier Harbinger will be found most valuable; it is dwarf and very early, so that it may be sown later and then give an early crop in gardens limited in size. Peas having, say, a haulm of 12 inches are most useful. I occasionally meet with growers who still grow American Wonder, but, though of the same shape, the pods are broader, longer, and equal in earliness, and the flavour is excellent. Duchess of York is a variety well worth a trial; it is 3 feet high, and one of the finest of the early class. The flavour is full and rich, and the variety is a little later than the older but grand May Queen, which is valuable for early or mid-June supplies. Ideal was sent out in 1901, and Messrs. Sutton described it as of high table quality. It is certainly a delicious Pea; the plant crops heavily, and it is well worth a place in any garden. Little Marvel, a variety which has had two high awards, is valuable in small gardens or for pot or frame culture. It is scarcely more than 12 inches in

There is no lack of good variety in roots. Carter's Crimson Ball Beet is excellent, and of longer roots the newer Blood Red is very fine. A trial should be given the new Intermediate Sutton Parsnip, a splendid introduction, also the Sutton Vegetable Marrow, a beautiful oval fruit for exhibition.

TOMATOES are always to the front, as they are much more grown than formerly. The new Winter Beauty is a great gain as regards earliness, but there should be a trial of the yellow fruits, such as Golden Jubilee, a variety of good flavour.

SPINACH.—This popular vegetable has been improved of late. The Carter Spinach is a splendid addition, and there are other vegetables I hope to note in THE GARDEN later.

G. WYTHES.

*Syon House Gardens, Brentford.*

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### ORCHIDS IN FIELDS AND FORESTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 9th inst. there appeared a note on the great abundance of Orchis Morio. This Orchis is not very common, not so much so as either *O. mascula*, the earliest flowered, or *O. maculata*, both of which are capable of making a far greater display of colour than *O. Morio*, with its greenish veined upper petals, although the plants frequently occur in greater abundance. In some districts albino varieties are much less common among *O. Morio* than in the other two mentioned, while in other parts the reverse is the case.

A small meadow in the east of England, surrounded for miles by arable land on every side, was very conspicuous every spring for its display of *O. Morio*, among which grew a few *O. pyramidalis*; but during the four years the meadow was under the writer's notice the plants showed no signs of the disappearing trick which appears to haunt some breadths of it in certain districts. When moist pasture land purpled with Orchises is drained, these plants find it a difficult task in one season to flower, to form a new tuber, and to mature the numerous capsules, each of which contains thousands of seeds. Such a plant may not throw up flowers the succeeding year, but may devote its energy to forming another tuber that will certainly flower the next spring. It is the formation of each succeeding tuber by the side of the last that gives these Orchises the name of "Walking Plants." It is a distinct way of travelling, though certainly not a quick one.

Far more effectual as regards distribution than any "walking" antics are their widely distributed seeds, so light that they could easily be established over the countryside. In the meadow above mentioned, which did not exceed four acres in size, and was bounded by arable land, and beyond this by woods, few of the many millions of seeds, save those that germinated among the grass that surrounded them, could have found a growing place for miles around, for in woods the meadow species do not grow. In Scotland several native Orchids may be met with in great abundance. On the meadows around Loch Tay and other districts *Habenaria bifolia* and the larger *H. chlorantha* (the Butterfly Orchis) are extremely plentiful, and give way on the higher sub-alpine terraces to the Globe Flower or *Trollius europæus*. These *Habenarias* are among the most beautiful of European Orchids, and are well worth growing in the garden, choosing a half-shaded position. Wild it grows well in shade and sun, but the tallest of the white fragrant spikes are found in moist loam and slight shade. With the above also grows *H. conopsea*, or *Gymnadenia*, while the green *H. viridis* (the Frog Orchis), with shorter stems, forms dot plants

among the larger and more ornamental Orchises. Often the finest specimens of the last two are found on drier ground than *H. bifolia* favours, and in gardens *H. conopsea* should be planted in the sun, and lime rubbish mixed with the soil if heavy.

On walking through the grass, the air deliciously fragrant with the scent of the beautiful mauve-pink flowers of this Orchid, one most exquisite white form was seen, and only one, though the white-flowered *O. maculata alba* was frequent. The rarity of this white form is noticed in "British Orchids." A few Scottish woods are famed for a little Orchid, which delights in loose soil of Pine needles and moss. In some localities *Goodyera repens* is very plentiful, suggesting at first a *Pyrola*, for its leaves are evergreen, and the flowers, on splendid spikes, are in full beauty in July. The *Goodyera* is more easily established than many of the tuberous kinds, and may be naturalised in woods of Pines. For garden culture this species is surpassed by the Japanese *G. macrantha* and the American *G. pubescens*, which possess nicely white veined leaves, and are very suitable for shaded rockeries in peat and leaf-mould if slugs are kept off them. Of course, all native Orchids are usually lifted at the wrong time, that is, when they are flowering. If their roots are disturbed then they seldom succeed, but many prevent this by taking a good bit of the soil and grass away with each root, and carefully planting in similar material very firmly pressed in the garden, where the above thrive well.

None of the Orchises usually gathered can compare with *O. maculata superba*, a variety seldom found wild except in very rich soils. Big as it is, it improves with garden culture, forming fine clumps, which in flower suggest a good *Liatris*. Spikes received from Ireland measured 18 inches in length, and 12 inches of their stems were thickly clothed with pale purple flowers. The leaves are also ornamental, and are spotted with purple. It produces the largest flowers in rich loam, in a slightly shaded position. This grand Orchis is yet known in some gardens as Miss Hope's Orchid; it was first brought over from Ireland by that late plant enthusiast of Edinburgh. This and several *Cypripediums*, fortunately better known, have proved the best Orchids as open air plants in this country.

D. S. FISII.

*Royal Botanic Garden, Edinburgh.*

### APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—An excellent note on Apples appears in THE GARDEN, page 414. Here in British Columbia it is very disheartening exposing Apple trees for sale. So many people come from different parts of the world, and many of them will not take advice from those that have experience. For instance, I had an order for 400 Princess Louise Apple from a perfect stranger in the country. The variety, if there is one of that name, has never been tested here so far as I can find out. Most of these people that give outlandish orders have read about or have been acquainted with certain varieties that are doing well in some other part of the world, and they think that they should do well here. This year there has been a great call for Northern Spy, a good Apple, but it takes from ten to fifteen years to come into bearing on this island, and is tardy in most localities. I have a neighbour who is a fruit grower, and he has a lot of Northern Spy about fourteen years old, and only one of them has borne a few Apples. The same man had a lot of Greening, but he never got a paying crop from them. They were planted on an eastern aspect, thin but rich soil, with a slightly gravel subsoil. I have some trees that I propagated at the same time and from the same parent tree, which for the last three years have given me from nine to sixteen boxes of fruit per tree. They are planted on a south-west aspect on a rich, deep black soil, with sandy subsoil and clay below.

If a certain variety does well in a certain season there is sure to be a demand for it, no matter if it had been a failure for several years previously; then, if it fails the next season, the nurseryman will be left with a large stock on hand if he has

started to propagate the variety extensively. Planters should be satisfied to plant good tested varieties that do well in most localities, and especially in the one they intend to live in. With me all varieties that I have tested do well with the exception of Northern Spy and *Esopus Spitzenburg*, but planters for market must look out for good selling varieties. A box of Alexanders will be bought here before a box of Newtown Pippin, so you see the difference here and in London, England. If we had an Apple that is as large as Emperor Alexander and as showy, also a late keeper, it would take well here providing it would grow well. English varieties do with me even better than American. We have a native Crab (*Pyrus rivularis*) that is very pretty. It grows from 10 feet to 20 feet high, and its fruit is about the size of Black Currants; birds are very fond of it.

GEORGE A. KNIGHT.

*Mount Tolmie Nursery, Victoria, British Columbia.*

P.S.—A box of Apples runs from 40lb. to 50lb., according to the variety, some weighing heavier than others. Apples are usually grown on free stocks here.

### RAINFALL IN 1903.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The measuring and recording of British rainfall is now so universally adopted that there must be a very large number of your readers interested. I therefore send you a table showing the monthly records in these gardens for comparison with other readers' measurements. It will be observed that both the number of wet days and the total exceed those from Mr. Sinclair, given on page 30, from Hampton Manor, though this is not considered a wet district at all. This amount exceeds our average of the past eight years by 18.98 inches, truly a remarkable and undesirable excess. Maximum temperature (July 11), 90°; minimum (January 15), 12°. There were sixty-two frosts during the year, with so many ill-remembered ones in April and May, carrying out such complete devastation in garden and Orchard. October seems to have afforded the most phenomenal rainfall on record, not in one district or county, but universally. It is curious to note how varied are the measurements even of a day's rain at different stations; even situated, it may be, but a mile or two apart, there is the same marked variability of register. Some good comes even from this gloomy record, and is found in the strengthened state of the water supply from both deep and surface springs. For a long time the dearth of water, even out of the summer season, has been an oft-repeated cry.

RAINFALL IN 1903  
AT ROO ASHTON, TROWBRIDGE, WILTS.

Month.	Total		Greatest fall in 24 hours.	Number of days on which '01 or more fell.
	Inches.	Depth.		
January ..	3.70	0.90	.. 4	.. 18
February ..	2.04	.. 75	.. 24	.. 11
March ..	4.06	.. 71	.. 2	.. 20
April ..	2.96	.. 63	.. 25	.. 11
May ..	5.08	.. 90	.. 29	.. 17
June ..	5.36	.. 115	.. 19	.. 10
July ..	3.07	.. 85	.. 29	.. 12
August ..	4.77	.. 107	.. 16	.. 17
September ..	2.27	.. 38	.. 10	.. 17
October ..	7.49	.. 80	.. 12	.. 28
November ..	2.02	.. 98	.. 27	.. 13
December ..	2.98	.. 108	.. 12	.. 15
Total ..	45.80	10.00		189

*Roo Ashton, Wilts.*

W. STRUGNELL.

## NOTES FROM THE MARKETS.

### COVENT GARDEN.

THERE is a good deal of change both in the supplies and the demands during the past few years. The cold storage brought about a great reform, and since we have had Lily of the Valley, Lilies, and *Spiraea* all the year through, some of the older favourites find less favour. The old double white

Chinese Primula was formerly a most profitable winter-flowering plant, and though it may yet be seen in market it is no longer in great demand, and several of the growers who used to grow it in large quantities have given it up entirely. The single Primulas are no longer a profitable crop; they have been on the market for some weeks past, but there is little demand. I lately noticed a fine lot of plants on a costermonger's barrow, which in itself was good evidence that the market value was very low. A good many well-flowered plants are now coming in in 3-inch pots. There are also some of the stellata type, both cut and in pots, but these attract little attention. A good many of the small flowering plants are now substituted by cut flowers and cut foliage. Good cut foliage may often be used with greater effect than pot plants. When I first saw the late Mr. Green of Crawford Street cut down beautiful plants of *Aralia Veitchii*, *gracillima*, and *elegantissima*, for which he was paying 3s. 6d. each, I thought it a great sacrifice, but when seeing them used in the centre of fancy bowls with a few choice flowers round them I recognised their value for the purpose. I have seen other choice foliage used in the same way, and at the present time choice cut foliage is much in demand. Another old favourite which is not so much used as formerly is the Maiden-hair Fern. *Asparagus plumosus nanus* has taken its place to a great extent, but other suitable foliage is also substituted. Of course there is still some demand for the Maiden-hair, and it is doubtful if it will ever be superseded for some purposes. Just at the present time really good Maiden-hair Fern would sell well, but there is plenty of second quality on the market. The leaves of *Cycas revoluta* are another comparatively modern innovation, being much used for the ground-work in funeral emblems. There is a good supply of these now coming into the market. English-grown *Smilax* may now be had pretty well all the year through. *Asparagus Sprengeri* is now being much used for green, yet it hardly finds as much favour as it deserves, for in addition to the quality of lasting well, it works in with flowers with great advantage.

Of general market trade there is little to record, except that everything continues very quiet. The *Chrysanthemum* are beginning to fall off, but Dutch and other bulbs are coming in in quantities to take their place. The Paper White and other *Polyanthus Narcissi* are plentiful, and we shall soon have *Daffodils* in abundance.

A. HEMSLEY.

## MISCELLANEOUS.

### RESURRECTION PLANTS.

REFERRING to Mr. A. Hemsley's interesting note on the above (vol. lxiv., page 371), *Selaginella lepidophylla* differs from the other examples cited in retaining not only its power of expansion after prolonged drought, but also its vitality unimpaired. Some years ago, passing through Texas by train, I noticed several children on the side of one of the stations who were selling little baskets of the local Cacti and *Selaginella lepidophylla*, the latter in the form of dry brown incurved masses, roughly resembling an incurved *Chrysanthemum*, but quite dry, hard, and brittle. As I recognised the plant I bought several and put them into my portmanteau to take home as curios. Quite six weeks later I came across them when unpacking, and dropped them overnight into a pail of water. Next morning I was delighted to find as many bright green and perfectly fresh rosettes which, when potted up and installed in my fernery, resumed, I cannot say started, growth as if nothing had happened to them. One of them I saw recently in good condition at Wanstead in possession of a friend to whom I gave it at the time. These plants present a very curious case of adaptation of a moisture-loving genus to conditions of severe and prolonged drought. During the rainy season they thrive in the chinks of rocks and similar habitats, but when the dry season sets in

each frond curls inwards from the tip towards the centre, presenting its brown, thickly-scaled under surface to view, and eventually forms a sort of ball, as above described. This, rooted up by strong winds, is blown for months about the prairie, where the children collect them for sale as aforesaid. When the rains are resumed they simply root where they lie, which is naturally usually in such hollows as they have drifted into. How long they might be kept in a dry state I cannot say, but in this case it was probably two months between the time of gathering and resuscitating, and considerably more since they first dried up and got adrift. We need not, however, go abroad for resurrection plants since our common *Ceterach officinarum* forms a good rival to the *Selaginella* in its drought-resisting capacity, and on similar lines. I once collected a plant in Asia Minor which I wrapped in an envelope and put into a breast pocket, whence it was unearthed, so to speak, four months later. The fronds were curled in with the thick brown scales outwards, and apparently as dry as tinder, yet dropped into water overnight it was perfectly green and alive next morning, and when planted resumed growth at once. This Fern has a fancy for the sunny sides of rocks and old walls, and in very dry summers we may see it in its brown and shrivelled condition looking as dead as dead can be, and yet capable of reviving or resurrecting when moister conditions permit. Numerous exotic Ferns of the *Notholaena* and *Cheilanthes* description are similarly gifted, and years ago Mr. Loder, now Sir G. Loder, sent the writer a plant (*N. Fendleri*) which had been posted to him dry from the United States, and was none the worse for the ordeal when soaked and potted up. It is noteworthy that dense dorsal scales, either white or brown, are present in all cases as a protection.

CHAS. T. DRUERY, F.L.S., V.M.H.

### FRENCH CAPERS.

As a food or culinary adjunct Capers are much used on the Continent, also in England and America. The commercial product known as Capers are simply the undeveloped flower-buds of a bush which grows in Southern Europe and in the North of Africa. The species that is common to Europe, and is cultivated in Spain, Italy, and the departments *du midi* of France is *Capparis spinosa*, the Egyptian Caper is *C. aegyptiaca*, the Caper of Greece is *C. rupestris*, and the Caper of Barbary or Northern Africa is *C. Fontanesii*. In France, especially in the district of Provence, the Caper bush thrives on chalky soils, and grows well when planted on rising ground well exposed to the sun. Poor dry soils are also utilised, but experience shows that better results are obtained when the quality of the soil is good. The Caper bushes are propagated by cuttings of about 10 inches in length, which are planted in some selected place that is considered as being especially favourable for their striking. Experience has shown that it is best to plant the cuttings in a soil somewhat akin to that into which they will be finally transplanted. By this method, though not more than 20 per cent. usually survives, yet good results are obtained on transplantation. On the other hand, if cuttings are planted in a rich moist nursery, they will nearly all grow; but when the plants are transplanted into poor soil their growth is arrested to such an extent that the effect is felt for years.

Planting out is done in spring time, the ground having been previously well ploughed and manured, and the bushes are placed at a distance of about 8 feet from each other. They yield a small crop the first year, but in two or three years they are in full bearing. Each year upon the approach of winter every branch is cut down to a length of 8 inches to 10 inches, and then the earth is hoed in a heap over the entire bush in order to preserve it from the effects of frost, and thus treated the bushes will stand a temperature of 10° to 12° Centigrade. In March the earth is removed, and the branches are again cut closely to the trunk, which is left bare, the branches now cut being used as cuttings. At the same time the ground is ploughed and manured, and from time to time, till

June or July, it is hoed and weeded. By July the bushes are fully grown, and their branches cover nearly the entire surface of the plantation. The gathering of the crop, however, generally commences about the first week in June, and as there is one Caper for every leaf the harvest continues until September or even October. The buds are picked by women, who work upon the same bushes every five or six days, and every effort is made to gather small Capers, as the smaller sizes are the best and bring the highest prices. The pickers are paid about 25 centimes per kilogram, or about 1d. per lb., and in the height of the season a competent woman can gather about 44lb. per day.

After the Capers have been picked they are placed in trays under a shed, so as to evaporate a portion of the water they contain. After this they are placed in barrels of white vinegar for preservation, the strength of the vinegar so used being about 8° Beaumé. Occasionally the preserving vinegar is flavoured, according to individual taste and experience and the demands of prospective market, with sprigs of Tarragon, Elder flowers, Cloves, and Pepper. During the winter the Capers so preserved are classified by being passed through sieves of different sizes. Seven classifications or sizes are recognised, and are termed "nonpareille" (the smallest size), "surfine," "capucine," "capote," "fine," "mi-fine," and "commune" (the largest size). Having been thus separated and graded, the Capers are replaced in barrels filled with vinegar and kept till sold. When the Capers are prepared for shipment they are usually washed in a vinegar of the strength of 12° Beaumé, which renders them quite firm, and they are then placed in barrels without vinegar, and can stand long journeys. The first quality of Capers are known in France as "Câpres de Toulon," and are presumed to have been grown in that district; the second quality are the "Câpres de Marseille," and the third are the "Câpres de Majorque," and each of these have some or all of the various grades we have already noted. The "Câpres de Marseille," for instance, have the following grades: nonpareille, superfine, fine, demi-fine, and ordinaire. The "Câpres de l'Espagne," which are usually large, are another recognised quality, and find a place somewhere in line with the three commercial species already named. The commercial varieties that are the least valued of all are those termed "Câpres de Lyon" and the "Câpres de Tunis," known also as "de Capènes."

The fruits of the Caper, which are as large as Italian Olives, are often preserved in vinegar, and are commercially known in France as "cornichons de câpriers." The trade in Capers is carried on principally in Marseilles, Toulon, and Grasse, and it is generally in the hands of merchants who also prepare and sell pickled Olives, sardines, anchovies, and other products which figure on French tables as "hors d'œuvre." In the North of France they preserve and sell, under the name of "Câpres de genêt," the young buds of the *Nartium scoparium*. It is stated that they are also preserved in Germany, and sold in considerable quantities in the eastern departments of France and in Holland, these "Capers" being considered a very *recherché* condiment.

R. HEDGER WALLACE.

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## BOOKS.

**Flora and Sylva, Vol. I.**\*—The first volume of the monthly magazine *Flora and Sylva* forms a beautiful and interesting book, and we look forward to a long series of a publication that it is a delight to possess. Mr. Robinson in the preface tells us that trees will always form one of the great features of the magazine, and we heartily agree with him in regarding the study and planting of the finer trees and shrubs as somewhat overshadowed by the greater devotion given to flowers and plants. "When we think of the beauty, use, and long life of trees, and the happy

\* *Flora and Sylva*. Vol. I. Edited by W. Robinson, and published at 17, Farnival Street, London, E.C. Price £1 1s.

results a man who plants may get in his own lifetime, there can be but one view as to the importance of the subject, and hence the place given them in this work. In the series of articles on the 'Greater Trees of the Northern Forest' it is proposed to include all the nobler trees." *Flora and Sylva* was begun in April of last year, and opened with an article on "Hardy Bamboos in England," by Lord Redesdale, and a review of the Magnolias and Calochorti, with a coloured plate of *Magnolia rustica* fl. rubra and *Calochortus clavatus* and *C. nitidus*. The coloured illustrations are one of the features of the work, two being given with each number, and they are from drawings made by Mr. H. G. Moon. The engravings and plates alone are worth the price of the magazine, and paper and printing are excellent.

The following plants are represented by a coloured plate in the first volume, the two just referred to, and *Geranium grandiflorum*, single Camellias, *Anchusa italica* var., *Colchicum giganteum*, *C. Sibthorpii*, *C. Bivonæ superbum*, *Aconitum Fisheri*, *Browallia speciosa major*, *Cherokee Rose (Rosa levigata)*, *Clematis Mme. Edouard Andre*, *Cyclamen libanoticum*, *Fritillaria askhabadensis*, *Hidalgoa Wercklei*, *Inula royleana*, *Lilium Grayi*, *Mertensia primuloides*, *Pæonia lutea*, and *Anemone cernua*. The wood engravings are very beautiful, especially of the Swiss Pine at home, page 101; the Scotch Fir (*Pinus sylvestris*), page 163; and Rose Bessie Brown, page 307. We have reviewed several of the parts already, but that for December has not yet received attention. In it are the coloured plates of the Cherokee Rose and *Ioula Roylei*, and the charming engraving of the Bessie Brown Rose to accompany an interesting article on

#### THE GREATER ROSES,

from which we take the following extract:—"This is an important subject for all who think of a real flower garden, and seek to avoid the ugliness of the pitiful substitutes for it both in France and England. The stereotyped gardens are even worse abroad than at home, since the French and Germans have taken mosaic culture from the Italians, and are riding it to death. I have lately been through one of the most beautiful parts of France—the valleys of the Loire and Cher, where all things in Nature are beautiful, from clear sky to river bank, the one human blot on the whole being the dabs of mosaic culture in spots that ought to be the most sacred—before a group of fine Cedars, the far side of a wide lawn, or against a beautiful old chateau. No such things ought ever to be seen in the foreground of a beautiful house, and to avoid these horrors we have (among other things) to think first of the *great* Roses. It is a question which is obscured by the stupid division of Roses into many classes, by giving an exaggerated value to some, and by the still prevailing error of growing mainly the summer-blooming kinds. In catalogues also we see Roses of poor quality, like *Homer*, described in glowing terms year after year, and not enough care is taken to exclude Roses which do not open well in parts of our country, like *Francisca Kruger*. Raisers, too, are not careful enough to exclude Roses of poor colour and effect for the open air, in which distant effect has to be reckoned with; and so for its colour I exclude *Marquise de Salisbury*. Also, with perhaps less reason, Roses with long and absurd rignaroles of names, and kinds like *Niphotos* and *Comtesse de Frigneuse*, which are not good for open air culture. There are also a certain number that are apt to break into many heads, like *Comtesse Riza du Parc*, which may be pretty in their first season, but gradually become less so. I was nearly excluding *Maman Cochet* for this habit and for its general want of effect throughout the year; famous as it is I should not at all place it near what I should call a *great* Rose. . . ." Mr. Robinson condemns "poor Roses such as *Crimson Rambler*, which give their few weeks of colour and then subside for the season. Such Roses may be of some value on outhouses, and among trees and shrubs here and there, and to give a pretty effect for a time, but they are not worthy of mention beside such sorts as are beautiful the whole summer and autumn. There is, unhappily, a

greater cause of exclusion than all these, and that is the effect of grafting all the fine Tea Roses on the Briar." In writing of the beautiful *Yonne Gravier* he mentions that, even when obtained from the best source, it is very apt to die when on the Briar. "A few suckers that I got on their natural roots do much better. In my trials, embracing thousands of Tea Roses, a great many constantly die back. They flower well the first year and then perish slowly, flowerless ever after. So I am haunted always by the fear that we have lost many of our finest Tea Roses in this way. I do not divide great Roses into classes, because there is no need for it. It is the modern mania for making classes when no real distinction exists, which leads our societies to classify Roses into garden and exhibition kinds, as if Marie Van Houtte and Anna Olivier, among the best of open air Roses, were not good enough to take their places in any show, even with their beautiful foliage cut off and set in ranks like Cabbages in a market stand. Dividing one group into hybrids and another into non-hybrids is not one whit more rational, for all are hybrids."

We should advise keen Rose growers to get this part with the list of the greater Roses. The article upon the "Greater Trees of the Northern Forest" is illustrated with a capital wood engraving of the "Norway Spruce at Oakley Park." We heartily congratulate Mr. Robinson. *Flora and Sylva* is a periodical for all who love their gardens.

## NOTES FROM SCOTLAND.

#### MEDALS FOR COTTAGERS' GARDENS IN SCOTLAND.

FOR a number of years the improvement of cottage gardens in Scotland has been stimulated by the medals offered annually by the Highland and Agricultural Society of Scotland. These are awarded through the medium of the local horticultural societies, and there are usually more applications for medals than can be supplied by the number allotted. It is therefore the custom to grant the medals to different societies instead of continuing them every year to the same district. This year twenty districts will receive two medals each. These prizes are generally keenly competed for.

#### ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

An abstract of the accounts of the Royal Caledonian Horticultural Society for the year ending November 30, 1903, has been issued by the secretary and treasurer, Mr. P. Murray-Thomson, S.S.C. It shows a gratifying improvement in the position of the society during the past year, the balances to the credit of the society amounting to £928 5s., compared with £715 17s. 7d. on November 30, 1902, a gain of £212 7s. 5d. Of these balances £557 11s. is that belonging to capital account, the remainder being on income account. A statement of the Neill Prize Fund is also published, showing £450 to the credit of capital account, and £24 10s. 3d. to that of income.

The annual meeting of the Royal Caledonian Horticultural Society was held in Dowell's Rooms, George Street, Edinburgh, on the afternoon of the 13th inst. Mr. David P. Laird (of Messrs. R. B. Laird and Sons, Limited), one of the vice-presidents, occupied the chair. The annual report, submitted by Mr. P. Murray-Thomson, S.S.C., secretary and treasurer, was satisfactory, and showed an increase in membership of 119. Reference was made to the success of the alteration in the date of the spring show, and to the forthcoming show at the same time this year. A statement was also made regarding the international exhibition promoted by the society, to be held in 1904, and gratification was expressed at the patronage of His Majesty the King having been accorded to it, and at His Majesty's gift of a valuable cup. The financial statement, already summarised above, was also satisfactory. Mr. Alexander Milne made some remarks upon the financial statement, which he did not think altogether satisfactory, as the surplus was, in his opinion, gained by a curtailment of the prize

money. He suggested economy in some other departments. Mr. Murray-Thomson explained that a good deal of the increase in the show expenses was caused by about £100 additional having been spent on music at the spring show for the purpose of attracting the public, and that the reason of the reduction of the prize money was that the nurserymen had foregone their prizes to help the finances of the society. Several members spoke in similar terms to the secretary, and the report was adopted, on the motion of Mr. J. W. M'Hattie, superintendent of the City Parks, seconded by Mr. W. Smith, Oxenford Gardens. Lord Balfour of Burleigh was reappointed president of the society. Mr. W. H. Massie (of Messrs. Dicksons and Co.) and Mr. D. Kidd, The Gardens, Carberry Tower, were appointed vice-presidents, and the vacancies on the council were filled by the appointment of Mr. James Grieve, Redbraes Nursery, and Councillor Mackenzie (of Messrs. Mackenzie and Moncur, Limited).

#### SCOTTISH HORTICULTURAL ASSOCIATION.

The annual meeting of this association was held in Dowell's Rooms, George Street, Edinburgh, on the evening of the 12th inst., Mr. J. W. M'Hattie, president of the association, in the chair. The attendance was large. No fewer than twenty life members and fifty-one ordinary members were elected, and thirty-four proposed for election at the next meeting. Mr. Peter Loney, the secretary, read his annual report, which was of an extremely satisfactory character, and which showed a gratifying record of progress in the membership. During 1903 forty life members, two honorary members, and 191 ordinary members had been added to the roll, the membership now standing at the record number of 1,295. Mr. Todd moved the adoption of the report, which was agreed to unanimously. The abstract of accounts for the year was also submitted by Mr. W. Mackinnon, the treasurer, and was of an exceedingly satisfactory character, the total income, including the balance in hand at the beginning of the year and the balance of profit on the Chrysanthemum show, having been £1,231 8s. 5d. The ordinary expenditure amounted to £102 0s. 11d.; £25 2s. had been given to charities, and the balance to the credit of the association was £1,104 5s. 6d., a gain of £125 13s. 4d. Mr. A. Mackenzie, in moving the adoption of the report, made some appropriate remarks regarding the prosperity of the association and the good work it was doing in fostering horticulture. The report was adopted and the office-bearers thanked for their services. The office-bearers were also appointed, the principal appointments being: Honorary president, the Marquis of Linlithgow; president, Mr. J. W. M'Hattie; vice-presidents, Mr. A. Mackenzie and Mr. A. Slater; secretary, Mr. Peter Loney; treasurer, Mr. W. Mackinnon. The association's prospects for 1904 are exceedingly promising, and the papers to be read at the monthly meetings are likely to maintain the attendance at its high level.

## OBITUARY.

#### REV. CHARLES DAVIDSON.

By the death, a few days ago, of the Rev. Charles Davidson of Dumfriesshire, that district has lost one of its most enthusiastic amateur gardeners. Mr. Davidson was fond of horticulture in all its branches, but he took a special interest in hardy and florist's flowers, and his garden at Hightae Manse was always interesting. Mr. Davidson, who was one of the most respected of men, died suddenly, and much sympathy is felt for his widow in her bereavement.

#### HUGH FRASER.

We regret to learn of the death of Mr. Hugh Fraser, nurseryman, of Leith, which took place in Edinburgh on January 13. Mr. Fraser was in his seventy-first year, and was interred in Rosebank Cemetery on January 16.

# THE GARDEN

No. 1680.—VOL. LXV.]

[JANUARY 30, 1904.

## THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

ON Thursday in last week the annual meeting of this institution was held at the Covent Garden Hotel, under the chairmanship of Mr. H. J. Veitch, followed by the usual supper, over which Mr. Leonard Sutton presided, supported by the majority of the committee and friends interested in this famous gardening charity. A report of the proceedings is given on page 86, but the institution, so thoroughly managed, and at small expense, demands a more general notice than an ordinary report, to which, however, we draw attention to show the substantial foundation upon which the institution is built. Year by year the committee appeal earnestly for funds to meet the distressing cases brought before their notice, and this year thirty-eight applicants must await their chance next January before their appeal for a pension can again be considered, and then, we fear, the majority have small chance of securing the necessary number of votes.

A glance at the report published shows a satisfactory state of things as far as the financial condition of the institution is concerned, but it is to the gardeners of the United Kingdom that the committee naturally look for increased support. Only 1,000 are sufficiently wise to subscribe to an institution which may be the means of imparting some comfort to them in the future, and, as Mr. Veitch pointed out at the meeting, those men who begin to subscribe when they are young are those who will reap their reward in the years to come, when the institution is appealed to for assistance from the pension or one of the other funds, which have been founded to give temporary assistance in time of distress and sickness. If the gardeners would take their share in supporting the institution its sphere of usefulness would be extended, and the committee be enabled to give relief to the sad cases which at every meeting are brought before them for investigation. Charitable institutions such as this must be managed with strict prudence, and of all the charities in which we have been interested none is handled with greater economy and foresight than the Gardeners' Royal Benevolent. It is not the men alone that are considered; it is the widow too, and the pension of £16 a year to the

widow saves the recipient from what would be practically in many cases starvation. When a pensioner dies the wife is placed on the funds without election, provided that the committee consider the case deserving of this action.

We earnestly appeal to the young gardener in particular to take heed of the future and subscribe to the institution, and by so doing, through the greater number of votes given to the oldest subscriber by the committee, ensure quick election when relief is sought. And the institution is not merely centred in London. It has now several auxiliaries, which are accomplishing, and will do so more in the future, incalculable service in broadening the basis of the institution, and in this good work Mr. Veitch has ever taken the keenest interest. The Reading auxiliary has been instrumental not only in raising a substantial sum but in making the institution known in the surrounding country, and we know that the Liverpool branch is extending, as well as those in Bristol and Bath, Worcester, Devon and Exeter, and Wolverhampton. We should like to see branches started in Manchester and all the great towns, with enthusiastic secretaries to make the claims of the institution known far and wide.

Although in the report we read of the "continued success and increased usefulness of the charity," we are not unmindful that comparatively few of the applicants had any chance whatever of election this year. As the report says: "Their cases are most sad, and the committee sincerely wish it was in their power at once to grant them, or at least some of them, that permanent assistance for which they plead and of which they are so much in need. The committee, therefore, whilst thankfully acknowledging the help afforded them in the past, very earnestly appeal to all friends and well wishers for their co-operation in obtaining additional support for this national horticultural charity, so as to warrant an enlargement of its beneficent objects on behalf of those, in their days of need, who in their time have done their best to minister to the pleasure and necessities of others."

The committee are determined that no effort shall be spared in developing to the utmost this famous charity. A history of the institution will soon be published, and leaflets will appear in as many publications as possible, including trade catalogues, where permission is granted. But those who govern must be supported. It is to the gardener as

well as to the many friends of the institution who open wide their purse-strings to relieve sickness and distress that an earnest appeal is made, and we hope not without substantial success.

Then there are the two special funds which have been the means of giving immediate help to the applicants. The report says:

"The special funds, viz., the Victorian Era Fund and the Good Samaritan Fund, are, happily, still a source of incalculable benefit and help. From the former fund, £135 10s. has been distributed during the year to the unsuccessful candidates who had previously been subscribers, in proportionate amounts, according to the number of years they had subscribed; and from the latter fund, which is for the assistance of subscribing and also non-subscribing applicants, no less than £81 has been awarded in temporary assistance in cases of urgent need, many of which were of a particularly distressing and pathetic character. The grateful letters which have been received from the recipients of aid from these special funds, as well as from the general fund, show how much the help was needed, and how greatly it was appreciated."

Few have done greater service to the institution than Mr. H. J. Veitch, who will take the chair at the yearly dinner in the Hotel Metropole, the date being June 28. A chance is offered of making this a great gardeners' year. The forthcoming chairman has earned the sympathy of all interested in horticultural charities, and he deserves a record subscription list as one means of showing the esteem in which he is held by horticulturists throughout the land.

## ROYAL HORTICULTURAL SOCIETY.

THIS famous society celebrates its centenary this year, and the annual report has therefore a special interest. The following are a few extracts, and it will be seen that the council intend that the hundredth anniversary of the Society's foundation shall not pass by without special celebrations of so interesting an event. We doubt the wisdom of raising the annual subscription to two guineas a year, and the council may expect strong protests from country members, to whom the ordinary events of the Society are of little interest.

### A PROPOSED DINNER.

The year 1903 will long be noteworthy in the annals of the society. Not only does it complete (1) one hundred years of the society's

existence, but it has also seen (2) the commencement of the new hall and offices, (3) the inauguration of a new garden, and (4) the largest numerical addition to the list of Fellows that has ever taken place in the society's history. To celebrate the one hundredth year of the society, it has been decided to hold a centennial dinner at the Hotel Metropole on Thursday, March 3, the nearest convenient date to the actual completion of the centenary, which will take place on Sunday, March 6 next, the society having been founded on March 7, 1804, by Mr. Charles Greville, Sir Joseph Banks, Mr. Richard Anthony Salisbury, Mr. W. T. Aiton, Mr. W. Forsyth, Mr. James Dickson, and Mr. John Wedgwood. The Right Hon. the Earl of Onslow, Minister for Agriculture and Horticulture, will preside at the dinner, and the council hope that a very large number of the Fellows will join in the celebration. The dinner tickets, which the size of the room unfortunately necessitates being confined to gentlemen, will be 21s.

#### CELEBRATION OF THE CENTENARY.

While the centennial dinner is the social commemoration of a striking anniversary, the council have had under consideration, for not less than five years, in what way the centenary could be most worthily celebrated.

Two projects speedily came into prominence—(1) a new hall and offices for the society's exhibitions and shows and for the accommodation of the library and of the office staff; and (2) a new garden less exposed to London smoke, fog, drainage, and crowding than Chiswick has of late years become.

These projects having been very deliberately considered, the Fellows finally decided in general meeting assembled to adopt the proposal of a hall.

Meanwhile, several influential Fellows, who preferred the establishment of a new garden as the celebration of the society's centenary, had been urging their views in certain quarters, and on August 4, 1903, Sir Thomas Hanbury, K.C.V.O., having asked for an interview with the council, offered to purchase the late Mr. G. F. Wilson's famous garden and estate at Wisley, comprising sixty acres of land, and to place it in trust for the use of the society as a garden as long as the society desired to retain it.

#### PROPOSED INCREASED SUBSCRIPTION.

After very grave consideration the council have decided to advise that the minimum rate of Fellowship should in future be raised to £2 2s. except in the case of *bona fide* gardeners, persons living abroad, and journalists writing for provincial or foreign newspapers. The existing £1 1s. Fellows will, of course, be under no compulsion to change the rate of their subscription, though it is hoped that not a few will voluntarily do so. The council have therefore directed a new bye-law to be drawn up and submitted to the meeting for approval, the effect of which will be, if carried, to make the lowest subscription for Fellows in future £2 2s. except in the cases mentioned.

It may be as well to point out the return value which a Fellow will receive for his £2 2s. subscription: Three tickets admitting to the Temple Show, first day, £1 2s. 6d.; second day, 7s. 6d.; third day, 3s.; the Holland House Show, first day, £1 2s. 6d.; second day, 7s. 6d.; seventeen exhibitions at Drill Hall or Vincent Square, at 2s. 6d., £6 7s. 6d.; eight exhibitions at Drill Hall or Vincent Square at 1s., £1 4s.; the society's journal, £1 10s.; total, £12 4s. 6d.

To this must be added, free advice on all ordinary garden subjects; investigation of

plant diseases, &c., by the scientific committee; a share of plants at the annual distribution; facilities for chemical advice, &c.

## CIDER MAKING IN DEVON.

"Oh, bid the cider flow,  
In ploughing and in sowing,  
The healthiest drink I know  
In reaping and in mowing."

AUTUMN in the country is full of delights—Blackberrying in the lanes, or glorious days spent among the woods and on the covert side, where the pheasant rises over the tree tops with a whirring sound, and the muffled "tap, tap" of the beaters is heard from the thicket. The hedges are gay with Bryony and scarlet Hips and Haws, trails of mellowing Briars, late Honeysuckle, and Traveller's Joy. But it is of a quaint old farm that I would write, where cider has been made from time immemorial.

The Devon farms are very picturesque; long and low, with thatched roofs, and walls of yellow "cob" mellowed with age. There is often fine Oak panelling in these farms, many of which have been manor houses of some importance. The big kitchen looks very comfortable with its huge open fireplace and snug ingle nook, the farmer's dinner stewing in a large iron pot swung from the ceiling by a long chain. There is a delightful smell from the wood fire, and the Marrow or Gooseberry jam that is simmering in a large pan, home-cured hams hang from the stout oak beams—a provision for the coming winter. September gales have blown down a good many trees in the Apple orchard that slopes down the steep hillside, but although this has been anything but a good year for Apples there seems to be a fine crop still hanging on the trees, or lying in rosy heaps beneath, waiting to be touched by the first frost before they are taken into the cider barn. October and November are the months for cider making, and fine weather is always chosen for the Apples to be gathered. The best kinds of Apples in these parts, at least, are the "Sweet Alford" and "Suelling." It is easy to find the way to the barn, for the faint, sweet smell of Apples penetrates far and wide, and there is the sound of swiftly rushing water, which, from a stream that flows from the wooded hills above, turns the great water wheel that works the primitive machinery of the cider press. The high priest of the cider making looks rather like an Apple himself with his rosy, wrinkled face. He is very proud of his cider, and takes great pains to explain the making of it, and its great superiority over the cider of manufactories, which is mixed with all sorts of ingredients instead of being as this is—just the juice of Apples, not even water being added. It is somewhat difficult to understand his explanation of the cider process, as he speaks in the broadest Devon. When the Apples have remained on the ground for a week or so they are taken to a loft above the barn or piled on the floor, where small iron rollers crush them into a fine pulp called "pomage," which then falls below into a huge barrel like a miniature Tun of Heidelberg. When the tub is filled the Apple pulp is placed between thick layers of straw under a great stone weight, which is set in motion, and the cider drips slowly through the straw into the vat, and is received into a great granite trough or "kieve." The lever is worked by hand, and as the stone weighs several tons it is a somewhat lengthy business. The cider looks uninviting enough as it runs into the kieves, a dark brown liquid, but it is carefully strained into casks and allowed to stand for a few days, so that all impurities rise to the top and can be skimmed

off. Then comes the process of "matching," when once more the cider is strained into fresh casks, and brimstone added, which prevents too much fermentation. After standing a month or so the cider is ready to drink, and very good it is. After the first pressing is done, the pulp or "mock" is pared down and added to. This is called "shearing the mock." This is done three times, after which the "mock" is thrown away or given to the pigs.

It is a picturesque old barn where the cider making is carried on. In one corner stand two large mill stones of days gone by, the farmer's gig, in which he goes to market, and piles of hay; fowls wander in and out, and pigs, straying from the farmyard, look inquisitively round the open door at us. A tiny calf, hobbled by a leg to a post, bleats for its mother, who has gone off to the pasture, one of a herd of Devon cows, red as the Devon hills.

There are several superstitions about cider making. On Christmas Day in old times the farmer used to go at night into the orchards and fire a blank charge at the trees—a sure way, he believed, to bring a good crop during the ensuing year. There is another legend of an Exeter brewer who, being jealous of the popularity of cider, sold his soul to the devil on condition, that every year, three nights' frost in May called "St. Frankin's days," should spoil the Apple blossom. This compact with the Evil One would not possess so much significance nowadays, when summer frosts are such usual occurrences. While writing this short description of a visit to the cider farm it is tempting to quote a verse from a quaint old song mentioned in a book of west country lore, to which I am also indebted for the two superstitions regarding cider makers. Speaking of the famous Devon orchards, the old poet says:

"An orchard fair to please,  
And pleasure for your mind, sir,  
You'd have—then plant of trees  
The goodliest you can find, sir.  
In bark they must be clean,  
And finely grown in root, sir,  
Well trimmed in head, I ween,  
And sturdy in the shoot, sir."

"Oh, the jovial days when the Apple trees do hear,  
We'll drink and be merry all the gladsome year."

DOROTHY HAMILTON DEAN.

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

#### WINTER-FLOWERING SHRUBS FROM NEWRY.

Mr. T. Smith, Daisy Hill Nursery, Newry, sends three winter-flowering shrubs, one the little Rhododendron dahuricum, the deep purple-flowered Daphne Dauphina, and the crimson Grevillea rosmarinifolia.

#### LUCULIA GRATISSIMA.

"H." sends a boxful of the beautiful Luculia gratissima which were cut from several plants in a cool greenhouse. The fragrance of the flowers filled the Editorial room, and the soft pink colouring is very beautiful too. It is a winter flower of the greatest beauty, but the plant is not easily grown. We hope our correspondent will tell us under what conditions the plants are grown to achieve such excellent results.



FLOWERS FROM NAPLES.

Three interesting flowers come to us from Mr. William Müller, Naples. One is the purple-flowered

PRIMULA MEGASEEFOLIA,

which is now becoming well known, and a great favourite for its beautiful colouring and freedom; the centre is deep yellow. It is a Primula for all good rock gardens and for the alpine house, and is now in bloom in the famous garden of Mr. Ch. Sprenger.

CORONILLA GLAUCA AND COTYLEDON MACRANTHA.

The Coronilla with its yellow flowers is one of the freest and most beautiful of plants in bloom now, and the scarlet bell-shaped flowers of the Cotyledon give a bright note of colour to the plant house at this season.

MESSRS. WILLIAM BULL'S PRIMULAS.

We recently had an opportunity of seeing some of the Primulas grown by Messrs. William Bull and Sons, King's Road, Chelsea, S.W., and among them are many good varieties. One of the finest of all is Snowdon; the flowers are very large, as much as 2½ inches across, beautifully fringed, the petals overlapping each other so as to impart great depth to the blooms. A new Primula of great merit is Fairy Queen, one of the giant section. The flowers are large and of good substance, and the colour is a beautiful pink. Primula Duke of York, also a new variety, bears very handsome rich crimson flowers. The plant is of sturdy and robust habit, producing the blooms well above the foliage. Among older varieties, taking first the singles, are Comet, with rich carmine-crimson flowers, shaded magenta; Countess, delicate blush-pink; Fulgens, scarlet-carmine, with small yellow eye—a very striking Primula; Imperial Blue, with large fringed blooms of a pleasing lilac-blue shade; Mont Blanc, bearing large, densely-fringed, snow-white flowers that are always admired. Pink Beauty, with beautiful blush-pink flowers, and Sunshine, brilliant magenta-crimson, are worth special note, as also is Ruby Queen, of a ruby-red colour, tinged with purple. Among the double varieties are Blushing Beauty, a new and beautiful Primula with large blush-pink double flowers; alba fl.-pl., rosea fl.-pl., and rubra fl.-pl., all of which are well worth growing; fulgens fl.-pl. is undoubtedly one of the best and finest coloured double Primulas. Messrs. Bull and Sons' Fern-leaved Primulas and their strain of P. sinensis fimbriata alba and rubra are also deserving of mention.

THE WILD PINKS.

(Continued from page 52.)

D. NITIDUS.—A pretty plant, with leaves somewhat similar to those of D. alpinus, but having generally more acute points. The stems are two to three-flowered, springing from tufts of grass-like leaves. A native of the calcareous Alps in Hungary, it is found in sub-alpine pastures, producing its rose-coloured flowers with dentate petals in August and September. Suffering a good deal from damp, this plant requires a dry position, wedged between stones.

D. NŒANUS.—A very distinct species, with tufts of fine rigid foliage from Rumelia and Servia. Very free-flowering, the slender stems are 6 inches to 9 inches high, branching at the top into two to three divisions, each terminating with a solitary small white flower, the petals of which are incised. A free grower, it will succeed in any sunny position in gritty loam. A summer-flowering species.

D. PETREUS (the Rock Pink) was introduced from Eastern Europe in 1804. Somewhat like the above species, but with broader and less rigid foliage, the rose-coloured, beardless flowers are produced on slender stems, branching at the top into three to four in summer.

D. PINIFOLIUS.—Tufted and wooded at the base, with freely branching stems, clothed with numerous long, very fine leaves. The flowering stems are slender, 1 foot to 1½ feet high, in the wild specimens only producing one to two pink flowers on each stem; but in cultivation three to four are borne on each. This curious tufted alpine grows in stony places on Greek mountains, flowering in June.

D. PUBESCENS.—This biennial species is a native of Greece. The whole plant is covered with a fine pubescence, and the flowering stems are much branched, each branch terminating in a single flower, the whole at a little distance having the appearance of a cluster. Flowers red in summer.

D. PUNGENS.—A Spanish species, growing on rocks and mountain pastures in Asturia. A dwarf, tufted plant, with subulate leaves and solitary or few flowered slender stems. The flowers are pink with entire petals.

D. SICULAS.—A tufted plant, with long grassy leaves, and tall, branching stems 1 foot to 1½ feet high, with solitary red flowers, having incised petals. A native of the Mediterranean region.

D. STRICTUS.—A small white flowered species, this plant quickly forms large tufts of glaucous foliage, and apart from its flowers is useful for covering the rougher parts of the rock garden. It is found growing on rocks in Eastern Europe. D. s. var bebius has broader leaves and larger flowers.

D. SUBACAULIS.—A very dwarf tufted plant, with solitary flowers, on short stems from the Dauphiny.

D. SYLVESTRIS (the Wood Pink) is found in great abundance in rocky and stony places on Mount Jura and the neighbouring Alps. It was once credited by some authorities as being the origin of the Carnation, but has no fragrance. One of the prettiest and easily grown of the Rock Pinks, it forms a tuft of slender, grassy leaves, bearing a profusion of pink flowers on rather weak stems. The plant has a creeping root or underground stem, and is best planted in loose, stony soil on a sunny ledge, where the roots can penetrate and find moisture below. Introduced in 1814.

D. TENER.—From the Piedmont, with slender one-flowered stems, and beardless pink flowers with lacinate petals in summer.

D. VISCIDUS.—From the mountains of Greece and Macedonia, with loose heads of flowers resembling those of D. deltoides, but larger and deeper in colour.

D. ZONATUS.—A native of the arid mountains in various parts of Asia Minor, it is somewhat like the Wood Pink, with rose-coloured bearded flowers, having a purple zone.

D. ARENARIUS.—This species is remarkable for its deeply-fringed petals, which are cut to below the middle. They are also each marked with a faint green spot, covered with short, dark purple hairs. The plant is slightly woody at the base, dividing into many branches, terminated with tufts of linear leaves, from the centre of which springs a stem seldom bearing more than one or two white flowers. Very hardy, and growing in almost any position; it is a sand-loving plant, being found on the sandy shores of the Baltic, whence it was introduced in 1804. Flowering in summer, it is a good plant for covering old walls, where it will root into the crevices and hang down over the face.

D. GALLICUS.—A plant of loose, straggling habit, with beardless pink flowers and deeply incised petals produced in May. A native of South-Western Europe; it is found near Biarritz growing in sand-hills under the Pines.

(To be continued.)

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACACIA BAILEYANA, A. dealbata, Barosma lanceolata, Brachysema Drummondii, Clematis grewiflora, Daphne Dauphinoi, D. odora, Hardenbergia monophylla alba, Illicium floribundum, and Rubus rosæfolius.

Palm House.

Brownea Crawfordii and B. grandiceps.

Range.

Anthericum triflorum, Brodiaea sellowiana, Lachenalia pendula, Thysacanthus rutilaas, Tillandsia bulbosa, and Scilla peruviana.

Orchid Houses.

Bulbophyllum dayanum, Cochlioda sanguinea, Cologyne sulphurea, Cynorchis lowiana, C. villosa, Cypripedium callosum, C. deedmannianum, C. lathamianum, C. Lowii, C. nitens, C. rothschildianum, C. virens, and others, Dendrobium atro-violaceum, D. burfordiense, D. luteolum, Epidendrum Armstrongii, E. ciliare, E. ciliare var. latifolium, E. Eodresii, E. kewense, E. Wallisii, Eria bicolor, Gomezia Barkeri, Lælia anceps, Lycaste lasioglissa, Masdevallia ignea, M. melanopus, M. polysticta, Odontoglossum maculatum var. donnianum, O. pardinum, Oncidium suave, Phalænopsis schilleriana, Platyclinis arachnites, Saccobolium violaceum, Selenipedium cardinale, S. klotzschianum, Sophronitis violacea, Stelis tristyla, Tainia penangiana, and Trichopilia sanguinolenta.

Succulent House.

Aloe chloroleuca, Cotyledon fulgens, and Rhipsalis crispata var. purpurea.

Greenhouse.

Cestrum elegans, Cheiranthus kewensis, Coleus thyrsoides, Eriostemon myoporoides, Eupatorium petiolare, E. vernale, Jacobinia coccinea, Kennedyia prostrata, Primula sinensis vars., Rhododendron præcox, Senecio grandifolius, S. Feltham Beauty, Sparmannia africana, and Hyacinths, Lily of the Valley, Tulips, and other forced things.

Alpine House.

Bulbocodium vernum, Colchicum crociflorum, C. hydrophilum, C. libanoticum, C. luteum, Corydalis ledebouriana, Crocus acyrensis, C. Imperati, C. reticulatus, C. Sieberi, Cyclamen Atkinsii, C. ibericum, Galanthus byzantinus, G. nivalis, Iris reticulata var. histrioides, I. Vartani, Nocca stylosa, and Scilla sibirica.

HAMAMELIS MOLLIS.

In the interesting note on Hamamelis which appeared in THE GARDEN of the 23rd inst. no mention was made of Hamamelis mollis, which bids fair to be as good, if not better, than H. arborea, which is the most ornamental of the older species. H. mollis is a strong-growing shrub, introduced from China by Messrs. Veitch of Chelsea in 1898. As yet small plants only are to be found in this country; one 4 feet high is recorded in Messrs. Veitch's nursery at Coombe Wood, but in China it is said to grow 30 feet high. It differs from all other species of Hamamelis by having large, broadly-ovate leaves, thickly covered with a felty mass of stellate hairs. The flowers are bright yellow, and larger than those of H. arborea, and instead of the petals being twisted, as in that species, they are straight with hooked ends. It also blossoms earlier than H. arborea, being quite a fortnight in advance at Kew this year. During the sharp frosts experienced last May the Kew plants were badly damaged, all the young shoots being killed; but they broke again from dormant buds on the old wood, and made strong branches from 9 inches to 18 inches long before the end of summer. Anyone who grows Hamamelis should obtain this plant. All the Hamamelis are interesting, and H. mollis is not the least important. It will probably soon be grown in all good gardens.

Kew.

W. DALLIMORE.

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

February 2.—National Amateur Gardeners' Association Meeting.

February 6.—Société Française d'Horticulture Meeting.

February 8.—United Horticultural Benefit and Provident Society Committee Meeting.

February 9.—Royal Horticultural Society's Drill Hall Meeting; Horticultural Club Annual Meeting, 5 p.m., Annual Dinner, 6 p.m. Sir John Llewelyn, Bart., chairman of the club, will preside.

February 10.—East Anglian Horticultural Club Meeting.

February 12.—Royal Gardeners' Orphan Fund Annual General Meeting.

February 23.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

**New superintendent of the Leicester parks.**—We understand that Mr. W. Burton, who assisted Mr. John Burns in the management of the Leicester parks, has been appointed to succeed him. As was announced last week Mr. Burns relinquishes charge of these parks at the end of January.

**Government enquiry on fruit culture.**—The departmental committee of the Board of Agriculture and Fisheries appointed to enquire into and report upon the present position of fruit culture in Great Britain, and to consider whether any further measures might with advantage be taken for its promotion and encouragement, held their preliminary meeting on Friday, the 22nd inst. The method of procedure at future meetings, and the nature of the evidence to be taken, was discussed.

**Scottish Arboricultural Society's Jubilee.**—The council of the Royal Horticultural Society have received a courteous invitation to send a representative of the society to the Jubilee of the Royal Scottish Arboricultural Society, which takes place on February 16, and they consider themselves fortunate in having obtained the consent of Mr. A. D. Webster, F.R.H.S., to represent them on this occasion.

**The Royal Horticultural Society and its subscription.**—I have read with no little surprise the following paragraph in the splendid report of the Royal Horticultural Society, recently issued: "The exceedingly rapid increase in the number of Fellows (1,412 having been added during the last twelve months), gratifying as it is as a proof of the appreciation of the society's work by the lovers of gardens, appears nevertheless to the council to contain an element of danger, inasmuch as it is becoming more and more difficult at times for Fellows to see the flowers, &c., without serious discomfort from crushing and crowding. After very grave consideration the council have decided to advise that the minimum rate of Fellowship should in future be raised to £2 2s., except in the case of *bona fide* gardeners, persons living abroad, and journalists writing for provincial or foreign newspapers. The existing £1 ls. Fellows will, of course, be under no compulsion to change the rate of their subscription, though it is hoped that not a few will voluntarily do so. The council have therefore directed a new bye-law to be drawn up and submitted to the meeting for approval, the effect of which will be, if carried, to make the lowest subscription for Fellows in future £2 2s., except in the cases mentioned." Will you allow me, as a country Fellow, to protest against this unwise decision, which, if approved, is bound to have a hampering influence upon the society in the future? Surely the policy of the council should be to endeavour to still further increase the membership and widen the scope of the society rather than to attempt to curtail it. At this juncture it is interesting to compare the first paragraph in the report for 1902, which reads as follows: "It is gratifying to the council to record that in this, the ninety-ninth year of the society's existence, a larger number of new Fellows joined the society than in any year since its first establishment in 1804. The exact number of new Fellows elected in the past year has been 1,140, which, if contrasted with the

1,108 who formed the whole number of the Fellows when the society left South Kensington in January, 1888, indicates the development which is continuously taking place in the society. *The council hope that everyone who has the society's welfare at heart will continue to endeavour to promote it by enrolling new Fellows.* The italics are mine. Thus in almost less than twelve months we find the council expressing two irreconcilable opinions, and the only explanation vouchsafed is that "it is becoming more and more difficult at times for Fellows to see the flowers without serious discomfort from crushing and crowding." This appears to me to be only a paltry excuse, as, except for the Temple show and an occasional Drill Hall meeting, I cannot say that I have ever experienced any "serious discomfort"—certainly not enough to warrant the drastic and restrictive proposal put forward by the council. Sir Trevor Lawrence, Bart., in his short historical sketch of the society, says: "*In reducing the minimum subscription to £1 ls. in 1888, the society was actuated by a desire to enrol amongst its Fellows as large a proportion as possible of the vast number of their fellow subjects who are interested in gardens.*" Now, sir, I do not intend to call in question the great value which Fellows receive in return for their subscriptions. Great credit is due to the society for giving so much and asking so little. This policy has found its reward in the rich harvest of £1 ls. Fellows, who are, after all, the backbone of the society. There are hundreds of Fellows throughout the country who are unable to attend any of the shows and meetings, but have simply joined in order to secure the invaluable Journal. More are still joining simply for this very purpose. Why not leave well alone? We are all justly proud of our society, and for my own part I only echo Sir Trevor Lawrence's own words when I say that I hope to see the numerical strength of the society still further increase until that "vast number" of people "who are interested in gardens" are enrolled as members. Another point occurs to me. Why do not the council propose an entrance fee, say of £1 ls., as is done in so many other societies? This would, I feel sure, meet with the approval of most of us. In the meantime I hope those who are opposed to this new move on the part of the council will attend the general meeting on February 9 and vote against this attempt to restrict the membership of the society for the benefit of the few instead of the many.—ARTHUR R. GOODWIN, *The Elms, Kidderminster.*

**Trees for George Street, Edinburgh.**—Some difficulties have arisen in connexion with the tree planting in George Street, Edinburgh, and it is doubtful if the proposals will now be carried out. It has been found that the soil is of such a character that a good deal of feeding would be required if the trees are to be kept in a healthy condition for any length of time. A number of the business men object to the planting, and although the sub-committee to whom the question was remitted did not come to a decision at their recent meeting on account of the absence of the proposer of the scheme, the feeling seemed adverse to the scheme. From an artistic point of view, George Street is one of the best in Edinburgh for tree planting, but, of course, other considerations have frequently to prevail in such matters.

**The Kidderminster Horticultural Society.**—This is one of the most progressive horticultural societies in England, and it is a pleasure to record that a profit of £37 was made last year. Mr. Goodwin, chairman of the lecture committee and one of our best-known contributors, sends the list of fixtures for this year. We notice that several very interesting lectures will be given. Mr. Goodwin lectures on "The Daffodil" on April 16, and Mr. C. E. Pearson of Nottingham will give his charming discourse, illustrated with lantern slides, entitled "Birds and Flowers in Russian-Lapland." This, it may be remembered, was given last year at the Horticultural Club. Other lectures include Mr. T. W. Sanders, F.L.S., on "A Chat about Gardens and Gardening," Mr. F. W. E. Shirvell, F.L.S., Mr. H. Bulmer, Mr. W. H. Wilson (Stonrivel), Mr. Benjamin Howard, and Mr. E. H. Mashrey. The president is Sir Frederick

Godson, M.P., and the secretary Mr. C. Sadler, 59, Sutton Road, Kidderminster. The Narcissus show takes place on April 16 at the Corn Exchange, and three other shows will be held, viz., on Saturday, July 9, in the grounds of Cairndhu (by kind permission of Mr. Peter Adam); Thursday, August 11, and September 8, both at headquarters.

**Flower show for Inverurie, N.B.**—A largely-attended public meeting was held recently in the Public Hall, Inverurie, N.B., to consider the desirability of establishing a flower show in the burgh. Bailie Moir occupied the chair. The feeling of the meeting was unanimously in favour of the object for which it was called, and it was agreed to take the necessary steps to establish a horticultural society. It is intended that the show, with which will be connected an industrial exhibition, should be held in August. Mr. James Eddie, F.R.H.S., was appointed secretary, and the other preliminary steps to carry out the project taken. An impetus has been given to the movement by the removal of the locomotive works of the Great North of Scotland Railway Company to the burgh. This has largely increased the population, and from the convenient position of Inverurie it is expected that the show will be well supported in the district.—S.

**Dust in Glasgow.**—In the course of an admirable lecture on "The Atmosphere of Glasgow," given recently by Mr. P. Fyfe, the chief sanitary inspector of the city, some remarkable figures were given, which will enable readers to realise the difficulties to be encountered by those who seek to cultivate plants in and near the great city on the Clyde. By means of a number of dust gages a test was made of the amount of solid matter deposited in Glasgow. The gauge in the Alexandra Park gave the highest amount, and registered 228 grains of solid matter to the square foot in seventy days. Of this 204 grains were mineral or incombustible matter, 67 grains organic matter, and 17 grains of oily matter. It is not surprising that the proportion was so high, as the Blochairn Ironworks are close by, and these have forty-five chimneys, which are estimated to give 20,000,000 cubic feet of black smoke every day of twenty-four hours, producing 3 tons 10cwt. of solid matter per day, or 1,277 tons per annum. The gauge at the Queen's Park showed the least solid matter, it being at the rate of 5.6cwt. per annum per acre. Taking Queen's Park as an example, that would give over the area of Glasgow 3,584 tons per annum. The Alexandra Park rate would mean 53,428 tons per annum, or 146 tons per day. The average over all gave at the rate of 23,321 tons per acre per annum, or 1,166'08 tons per square mile in the same period. It is surprising with all this how plants can be grown in even the worst places. Most careful cultivation is required.

**Accommodation for Scottish Societies in Edinburgh.**—In connexion with some proposed changes in the occupation of the buildings on The Mound, Edinburgh, presently occupied by the Royal Institution, &c., a movement has been inaugurated to have these devoted to the use of the various Scottish scientific societies which have their headquarters in Edinburgh. In furtherance of this object a deputation recently waited upon Mr. Graham Murray, K.C., M.P., the Secretary for Scotland, to lay the matter before him. The deputation was a most influential and thoroughly representative one. Among the societies represented were the Botanical Society of Edinburgh, the Royal Scottish Arboricultural Society, and the Field Naturalists' and Microscopical Society. The first was represented by Dr. William Craig and Dr. R. Stewart Macdougall, the second by Mr. R. C. Munro Ferguson of Raith, M.P., Mr. R. Galloway, and Colonel Wardlaw Ramsay, Mr. J. Russell representing the Field Naturalists' Society. Lord McLaren, who was one of the number from the Royal Institution, was the spokesman of the Botanical Society, and laid the claims of this and others which only required accommodation for their meetings before Mr. Graham Murray. A valuable feature of the proposal is that a scientific library should be included for the use of the members of the various societies.

**Apple Northern Spy.**—I have recently had from Canada several excellent samples of this Apple, as regards flavour, size, and appearance. A friend with nineteen years' experience in the North Island, New Zealand, said that if he planted fifty acres of Apples Northern Spy would be the only variety. Can any of your readers say how this Apple succeeds in England?—A. M., *North Lincs.*

**Extension of fruit growing in Scotland.**—The Scottish Wholesale Co-operative Society has just taken an important step in extending its operations by the purchase of the estate of Calderwood for fruit growing, cattle rearing, &c. Calderwood extends to about 1,125 acres, and the purchase price is, we believe, £37,500. The castle, a fine building, is, it is understood, likely to be converted into a convalescent home, while the vineries, Peach houses, and other glass structures are to be used for growing indoor fruits, &c., for the trade of the society. We are informed that it is the intention of the directors to enter into the cultivation of hardy fruits to a considerable extent, so that a large amount of labour will be employed in fruit cultivation, gathering, and packing. Calderwood is only a few miles from Glasgow, and is well adapted for the purposes for which it has been purchased.

**The Scottish rainfall of 1903.**—From a very interesting comparative statement of the rainfall at some of the Scottish towns, which has just been issued, it appears that the excessive rainfall has been even greater than was anticipated. A noteworthy feature is the manner in which the excess was distributed, the western and southern districts having a much larger increase than the northern and eastern. Thus Fort William had a rainfall of 108.56 inches, 47 inches more than in 1902, and 34 inches more than the average. Greenock had 87.35 inches, Paisley 69.57 inches, Glasgow 51.19 inches, and Dumfries 50.45 inches. In the north and east, Aberdeen had 37.29 inches, or rather less than 10 inches more than last year, or 6 inches above the average. Dundee came next with 35.33 inches, Edinburgh had 33.24 inches, and Nairn 29.31 inches. The difficulties of gardening with such a heavy rainfall as that of the south and west can be well understood, and much work is still greatly in arrear.

**Native Mosses at Glasgow Botanic Gardens.**—There are not many who take a real interest in the native Mosses, many of which are very beautiful; but among the few is Mr. Scott, the propagator at the Glasgow Botanic Gardens, who has a remarkably good collection, grown in pots and pans in frames. Such a collection is particularly valuable in a botanic garden, as it gives one an opportunity of learning something about the names of our native Mosses much more readily than can be obtained from books alone, and the many Nature students in the neighbourhood of Glasgow may derive considerable advantage from a study of Mr. Scott's specimens. It is gratifying that Mr. Whitton, the superintendent of the Glasgow City parks, takes an interest in these subjects himself, and gives facilities for their cultivation by members of his staff. It may be mentioned that the collection is not in the portion of the gardens open to the general public, but students of these plants would have little difficulty in seeing them.

**How Mushrooms grow.**—Writing on fungi in the current number of *Knowledge*, Mr. George Masee states that "in all fungi the portion visible to the naked eye, however varied its form or colour, represents only the reproductive portion; whereas the vegetative part is buried in the substance from which the fungus obtains its food. The popular belief that the Mushroom and other fungi grow in a single night is not correct; it is quite true that when the Mushroom has reached a certain stage of development, one or two days suffices for it to attain its full size after it appears above ground. Before this final spurt is reached, however, the baby Mushroom has been growing for some weeks, and undergone various changes of structure and development before it emerges above ground. A little thought will recall to mind the fact that Mushrooms do not

spring up within two or three days after the formation of a Mushroom bed, but several weeks elapse before the Mushrooms are ready for the table. . . . The various methods of spore dispersion as occurring in the fungi are interesting; only a few of the most pronounced can be noticed here. By far the most universal agent in effecting the distribution of spores is wind, as may be observed when a ripe Puffball is crushed under foot. Insects are also answerable for the extension of many fungus epidemics, by alternately feeding on, or visiting diseased and healthy plants, and in so doing unconsciously conveying spores from one plant to another. Perhaps the most interesting instance occurs in a group of fungi to which our Stinkhorn belongs. Most of the species are tropical; in this country we have only three representatives. In this group the reproductive portion of the fungus often assumes most fantastic forms, and is generally brilliantly coloured. Over this framework is spread at maturity a dingy green, semi-fluid mass, intensely sweet to the taste, and, from the ordinary human standpoint, intensely foetid. The exceedingly minute spores are imbedded in this substance, which is greedily devoured by various kinds of insects, mostly flies, who thus unconsciously diffuse the spores, as it has been shown that these are not injured by passing through the alimentary tract of an insect. It is interesting to note that in certain of the fungi the same advertisements in the guise of colour, sweet taste and smell, are used for the purpose of unconscious dispersal of the spores by insects, as are used by many flowering plants for the purpose of securing cross-fertilisation, also through the agency of insects."

**Aphelandra nitens.**—As a class the Aphelandras are, in common with many other Acanthads, remarkable for their showy blossoms, and so effective are several of them that it is impossible to say which is the best. In the front rank, however, stands *A. nitens*, whose flowering period is, like many of the others, not limited to any particular season of the year, yet at the same time it flowers more freely during the winter than at any other period. This feature is a great point in its favour, as bright colour is not conspicuous just now in the stove. Less apt to get bare at the base than some Aphelandras, this species with ordinary attention forms a well-furnished plant, clothed to the base with handsome shining foliage, deep bronzy green on the upper surface, and purple beneath. The leaves are oblong in shape, about 6 inches long and 3 inches broad, and of a firm, leathery texture. The flowers, borne like the others in an erect terminal cone-shaped head, formed of large adpressed bracts arranged in a four-sided spike, are bright scarlet, and, though the individual blooms do not last long, a succession is kept up from one head for a considerable time. This *Aphelandra* was first introduced by Richard Pearce—of tuberous *Begonia* fame—when travelling for Messrs. Veitch in South America. He found it in Muna, a province of Peru, and in the same district discovered the now well-known *Sanchezia nobilis variegata*. Soon afterwards he sent home *Begonia boliviensis*, and, later on, *B. Pearcei* and *B. Veitchi*, now in themselves but a name, while their progeny is represented in every garden.—H. P.

**To drive away moles.**—Moles are useful little animals, inasmuch as they destroy multitudes of wireworms and other obnoxious creatures, and no one wishes to destroy them without good cause, but they are very undesirable tenants of a garden. Throughout the winter we have been suffering from a plague of them. Last year trapping freed us for a time from their incursions on the tennis lawn, but in the autumn the brown heaps reappeared, and traps, with which no doubt familiarity had bred contempt, have been of no avail whatever. A remedy suggested some months ago by a writer in *THE GARDEN*, unless we are mistaken, occurred to mind, and the effect of pouring a little ordinary paraffin oil down the runs has been tried, in accordance with the advice then given, with the most perfect success. The nightly mounds have risen no more since the first, or, at most, the second application. The cheaper and

more evil-smelling the oil the better. By inadvertence some "refined Russian" at 8d. a gallon had been used for a garden lantern, with the result that the lantern suddenly burst—a warning not to be disregarded as to the danger of using a low-flash oil for any kind of lamp. But the remainder of the oil was quite good enough to use on the tennis ground, and the testimony that the plan answers admirably for the dispersion of moles may be of use to other readers of *THE GARDEN* who are similarly troubled. The never-tiring industry of the mole would be beyond all praise and much to be encouraged were it not too often in evidence in the wrong place, and it is just as well not to destroy it if it can be avoided.—K. L. D.

**Early flowers.**—*Saxifraga Griesbachii* was the earliest to flower this season. The first appeared on December 23, of *Rhododendron dahuricum* on the 4th inst., and that of *Winter Aconite* on the 9th inst.—T. SMITH, *Neury*.

**Gardening in the Antarctic regions.**—When the s.s. *Discovery* was taken to the Antarctic regions by Captain Scott, Messrs. James Carter and Co., High Holborn, London, conceived the idea of sending some seeds to supply the sailors with something green while passing the time frozen up within the regions of the Antarctic circle. An intimation of this was that the "only bit of green vegetable seen on the *Discovery* was a crop of Mustard and Cress grown by the officers on a wet blanket." This information was brought back to England by the relief ship *Morning*, and it shows that the officers had been successful in growing a little bit of green by following the instructions given by Messrs. Carter while passing the time in that dreary land. Another communication came through Admiral Sir Clements Markham, K.C.B., F.R.S., who heard that the Mustard and Cress supplied to Captain Scott of the s.s. *Discovery* was a great success and much appreciated. A further consignment of seeds, specially treated by an original process and packed in air-exhausted receptacles, has been taken out in the relief ship *Terra Nova*, which has lately left Hobart to seek for the whereabouts of the *Discovery*.

**Prunus japonica flore-pleno.**—This dwarf-growing *Prunus* is one of the most delightful of shrubs for flowering under glass early in the year; indeed, it is more valuable for such a purpose than in the open ground, as from the early season in which it naturally blooms the frosts and cutting winds often play havoc with the delicate flowers. There is no difficulty in getting it to bloom before the end of January in the greenhouse, and very attractive it then is, the slender branches being closely packed with comparatively large blossoms, like those of double Cherries, white in the variety *alba*, and slightly tinged in those of *rosea*. Large quantities of this plant are sent here from the Continent every autumn for forcing, but most of them are grafted or budded on the Sloe, the suckers from which are always a nuisance. Cuttings of the young shoots borne by forced plants will strike fairly well in a close propagating case, or an old plant or two may be layered out of doors. Plants intended for flowering under glass may be kept in pots for years if needed, being pruned back each year after flowering, and as soon as the young shoots have made a start pot them into good soil. This potting, however, need not be done annually if the plants are given liquid manure during the growing season. This Plum is often known by the name of *Prunus sinensis flore-pleno*.—T.

**Sparmannia africana.**—This is an old-fashioned greenhouse plant, and where a large structure has to be kept gay during the winter months, it is an extremely useful subject, but one whose merits in this respect are too often overlooked. Some fail to flower it well, this being in all probability the result of too free a growth, for the finest yield of bloom is obtained when the pots or tubs are full of roots and the plants thoroughly exposed to the summer's sun from July onwards. It may be grown as a bush or a standard, this last, I think, forming the most striking object when laden with bunches of white flowers, against which the large clusters of stamens (coloured purple and

gold) stand out very conspicuously. It is easily struck from cuttings, and a young plant soon forms an effective size. There is a variety with double flowers which about a generation ago was thought likely to be a valuable conservatory plant. It does not, however, flower so freely as the type, and is rarely seen. A second species which is very seldom met with is *S. palmata*, in which the leaves are lobed. It is altogether a more delicate plant than the other, and if stopped freely when young forms a neat bushy specimen that flowers as a rule during autumn. The flowers, which are borne in little umbels from the axils of the leaves, are about half an inch across. This is also a native of South Africa.—H. P.

## THE FRUIT GARDEN.

### RAISING BLACK CURRANT BUSHES.

**W**HY will nurserymen insist on raising Black Currant bushes with stems? No greater mistake could be made, as the great object is to get new shoots to grow out close to the ground, and if from the roots so much the better. Black Currant bushes bear chiefly on the wood of the preceding summer's growth, and it is therefore desirable to have as many new shoots each season as possible, so as to have the bushes so well furnished with them that as much as possible of the old wood may be cut out without disadvantage. When the bushes have long shanks, they become too lanky, and they are never as spreading as when there are no shanks. The cuttings should not be disbudded at all; then shoots will grow out from the buds nearest to the ground, which are usually the strongest, and some from buds under the ground. I have some young bushes grown from cuttings planted a little over a year ago, not disbudded, which are as big and branching as ordinary two year old bushes. In planting them out I cut them back severely, which will make them send out a number of strong shoots in the coming season. This is very important, and it is a serious mistake to leave the shoots of newly-planted bushes at all long. If allowed to fruit in the season of planting, by leaving the shoots long the bushes are permanently injured.

M. D., in *Agricultural Gazette*.

### VARIETIES OF THE BANANA.

THE frequent suggestions in the Press that other Bananas than the established Martinique variety should be grown in Jamaica, lead me to request the insertion in your *Bulletin* of the following reflections: First and principally, is it wise to make any change where the industry is so thriving? That there are Bananas superior to the Martinique in flavour is an undoubted fact. There are, however, several points to be considered before coming to the conclusion that it is desirable to substitute any one of these for the kind now grown. Market requirements are peculiar, and it does not follow as a matter of course that the best fruit gets a readier sale than the good. The public is conservative, and likes what it knows. Its eye is caught by appearances, and it wants something handsome. This is well exemplified in the Apple trade. Probably the most popular Apple in England is Blenheim Orange, and yet to connoisseurs it is not particularly good. In any market may be found lower-priced Apples of far better quality, which are neglected either because they are unknown or because they are less attractive in appearance.

Now no Banana is handsomer than the Martinique. Especially beautiful in the light yellow satin jacket of its perfection, it is also good to look at both before that stage and after it. Only when brown stains begin to disfigure the skin, whose hue has gradually deepened from light yellow to dark yellow, does it proclaim that it is no longer fit to eat raw. Even then it is excellent when cooked.

The Martinique keeps well, especially in cool climates, and a point in its favour is that it may

be eaten in several stages of maturity. Some people like it best when it has a slight tartness suggesting Apple, which is before the finger has become quite yellow. In this stage the skin screams if torn off rather quickly, and the flesh is fine and hard. Others prefer it when quite coloured, of an even light yellow all over. Others, again, like it in the more mellow state, when it has begun to taste like a sleepy Pear and its jacket has turned to a deep yellow. Not a few still enjoy it in the further stage, when more blotches begin to invade the skin. For my own part, that is a sign that it should no longer be eaten raw, and that it is in the best condition for the oven.

The original Banana of commerce in England is the China Banana. This, as grown in the Canaries, has a better flavour than the Jamaica-grown China. I do not think that even an undiscerning public would accept the Jamaica-China Banana. This is too coarse a fruit, and it would be a most dangerous experiment to attempt to substitute it for the Martinique.

On the other hand, some of the fine Indian kinds might be tried. They are of the highest excellence, decidedly superior to Martinique, though, as we have seen in the case of Apples, that is not necessarily a recommendation to the public. None that I have seen are as handsome in appearance. In any case, experiments of this kind should be left to the discretion of growers. Those who advocate new cultivations incur a grave responsibility. The great maxim of political economy, that progress is due to the pursuit of wealth by the individual, should never be lost sight of. The growing of a new fruit should be undertaken only because the grower is persuaded that he will make money by it. And the condition that he will succeed should come from himself, and not be forced upon him from outside.

Leaving market requirements, those who wish to have the best Bananas for their own eating should grow them upon the poorest soil. The small fingers of Martinique have a far higher flavour than the larger ones grown on good land.

WALTER JEKYLL, in *Bulletin of the Department of Agriculture, Jamaica*.

## TREES AND SHRUBS.

### THE ESCALLONIAS.

**T**HE genus *Escallonia* comprises about thirty species of half-hardy evergreen shrubs, of which about one-half are in cultivation in this country. They are all natives of South America, and thrive luxuriantly in the warm and genial climate of the south and west of the United Kingdom, but north of the Thames they can only be grown against a wall, except in a few favoured spots. It is a great pity, however, that the *Escallonias* are not hardier, as during the late summer and early autumn no outdoor plant gives such a pleasing display of flower as, for instance, a well-grown bush of *E. macrantha* or *E. punctata*. The cultivation of *Escallonias* is simple enough, any sort of soil seeming to suit them, though they will not thrive in cold or heavy ground, more, perhaps, because such localities are usually too bleak. They should not, however, be too well treated anywhere, a poor soil being best for them, as it keeps the growths short and firm, making them better able to withstand frost and damp weather, the latter of which often damages them as much as the former. In rich soils the plants grow faster, but they are usually found to be very soft in autumn, and fall an easy prey to the first sharp frost that occurs.

In most localities they will not require much pruning, being cut back, as a rule, by severe weather in winter, but in warmer parts an occasional thinning out of the growths is

necessary. This should be done in the spring, just as the plants are starting. At the same time any that are getting too large can be cut back within bounds. The following list comprises the best of the *Escallonias*, all of which are worthy of a place in the open garden or on a wall.

*E. eroniensis*.—This is a hybrid raised by Messrs. R. Veitch and Sons, of Exeter. It makes an upright shrub upwards of 6 feet high, and bears semi-pendent flowers of a pinkish white colour in great profusion. The leaves are ovate in shape, deep green, and very small. It is fairly hardy.

*E. illimita*.—This makes a spreading, much-branched shrub about 5 feet in height, and as much or more in diameter. The pure white flowers are individually small, but are in dense, terminal panicles all over the plants. The sticky leaves are oblong, crenulated, and covered with glandular dots on the upper surface. It is a rather tender plant, native of Chili, and requires the shelter of a wall in most places.

*E. langleyensis*.—This is a hybrid between *E. philippiana* and *E. macrantha*, raised by Messrs. J. Veitch and Son in 1897. The flowers are of a rosy pink or carmine colour and freely produced. The leaves are small, dark green, and shining. A fairly hardy plant, growing from 4 feet to 6 feet in height.

*E. macrantha*.—This is the commonest of the *Escallonias*, and is met with wherever they can be grown, generally under the names of *E. Ingramii* or *E. rubra Ingramii*. It makes a shrub 5 feet to 6 feet in height, and is one of the hardiest of the genus, or, what is perhaps more correct, it more quickly recovers after being damaged by frost. The flowers are bright crimson-red, rather large, and freely produced in terminal, racemose clusters. The leaves are ovate, serrated, deep green, and shining above, and dotted on the under surfaces. This is the best of the *Escallonias* with coloured flowers, and is wonderfully accommodating. I have seen old plants of this cut to the ground in the winter that have attained a height of 3 feet and been full of flower by the following September. It is a native of the island of Chiloe.

*E. montevidensis*.—This is a native of Monte Video, and is one of the most tender of the genus. Under favourable conditions it reaches a height of 8 feet to 10 feet, and bears terminal corymbs of pure white flowers. The leaves are oblong, and nearly or quite entire. The branches are sticky. *E. floribunda* is sometimes given as a synonym of this, but it is doubtful if it is correct.

*E. philippiana*.—This is a native of Valdivia, and makes an upright bush 4 feet or so high, with slender, twiggy branches, covered during July with small panicles of white flowers, borne both terminally and laterally in great profusion. The leaves are small, spatulate, and finely serrated, and are of a rich deep green colour. This is the hardiest of the genus, succeeding in the open in the London district.

*E. punctata*.—This shrub attains a height of 6 feet under favourable circumstances, though it is more often met with about 3 feet. The flowers are deep red in colour, borne in threes or fours in terminal clusters. The leaves are sessile, nearly ovate, finely serrated, and glossy with impressed veins on the upper surface, while the under side is variously smooth or dotted with tiny glands. This is sometimes confused with *E. rubra*, but is easily distinguished by the fewer and darker coloured flowers, and the stalked glands on the young shoots. It is a native of Chili.

*E. revoluta*.—This is a large Chilean shrub 10 feet or more high under favourable conditions, but as it is perhaps the tenderest of the genus, it is rarely seen in full perfection. The white flowers are in erect, terminal panicles or racemes, and open in August and September. The leaves are 1 inch to 2 inches long, nearly oval in shape, pubescent, and sharply toothed.

*E. rubra*.—This closely resembles *E. punctata*, but differs in the lighter red of its flowers, which are also carried for a longer period, and by the glandular hairs on the young shoots. It is a native of Chili.

All the Escallonias can be propagated by cuttings of half-ripened wood taken in August and put in a close frame. *E. langleyensis*, *E. macrantha*, *E. philippiana*, and *E. punctata*, however, which are the hardiest and also the best for general planting, can be struck outdoors in winter, using stout, well ripened wood, and planting the cuttings in a fairly dry, sandy spot.

Bagshot, Surrey.

J. CLARK.

## DECORATIVE CHRYSANTHEMUMS.

THE term decorative as applied to the Chrysanthemum is generally understood to mean varieties that

are free-flowering, bushy in growth, and bear flowers of pleasing forms and clear shades of colour. This definition may appear to some too comprehensive, while to others it may hardly seem to go far enough. As a matter of fact no hard and fast rule can well be laid down. What is really wanted are varieties that have a tendency to flower profusely, combining with this essential characteristic flowers suitable both for indoor decorations as well as for the conservatory.

The decorative Chrysanthemums as a class have been sadly neglected. At how many of the numerous Chrysanthemum shows held throughout the country in November are the decorative sorts exhibited? Very few indeed. Here and there, where the societies are ahead of their fellows, we see the small to medium-sized Chrysanthemums set up in pleasing contrast to the large blooms, with which we are now so familiar. In all cases where ample provision is made to set up the exhibits tastefully and effectively, the result is distinctly pleasing. Such a display illustrates the undoubted usefulness of the smaller flowers for the hundred and one uses for indoor decorations.

The societies that make the Chrysanthemum their special care are to blame for the present state of affairs. Their special object, as stated in their own rules, among other things, is to "promote the cultivation of the Chrysanthemum, &c." The success of the many Chrysanthemum societies has been very one-sided. At the November shows the large blooms, most of which are of Japanese origin, preponderate, and in a much smaller degree the incurred sorts; but large Anemones and Japanese Anemones are seldom represented, though they are the most quaint of the decorative section. At the great show of the National Chrysanthemum Society at the Crystal Palace, in November last, only 132 blooms of the large-flowered Anemones were set up in the competitive classes, and this in an exhibition of great magnitude. Pompons and singles were also poorly displayed, only seventy-eight bunches being staged. There were tables of decorative sorts embracing all types of the flower, in which sufficient space was not allowed by the rules of the competition to set up the bunches in an attractive manner. In other respects decorative flowers in the competitive classes were conspicuous by their absence.

The Chrysanthemum societies, to carry out the object for which they were instituted, should work upon broader lines. The large blooms should still be encouraged, but not to the exclusion of the decorative kinds. What could be more interesting and attractive than a series of exhibits in which the different types of these flowers, grown in a free style, could be displayed? Classes for groups and bush plants

would make effective contrast to those grown in the orthodox exhibition fashion to the advantage of the former. Other classes for a dozen or more bunches of Japanese kinds, either disbudded or partially disbudded, or separate classes for both, would illustrate some of the prettiest and brightest of the decorative varieties in this section. Other sections might be treated in much the same way, thus giving encouragement to quaint and curious large Anemone Chrysanthemums, of which far too little is known. The Pompons and singles deserve more consideration than they now get. Local and provincial societies are great offenders in this matter, and it is hard to believe they have any other object in view than the perpetuation of varieties developing big blooms.

The market growers have seen what the private growers have failed to appreciate. Ten years ago everyone was growing a few standard sorts, and the flowering time was short. What is the case to-day? From early October until the middle of January, and in several instances still later, the display is maintained. The flowers are beautiful in colour and form, and the market men, by a careful selection of suitable sorts, have now an excellent series of decorative varieties, and if these could only be displayed at some of our London and provincial shows, what a splendid object-lesson their exhibition would be. It is all the more gratifying to learn that there is the prospect of a display in late December of this year, or in January of 1905, of decorative Chrysanthemums, by the National Chrysanthemum Society. The market men have taken the matter up, and there is reason to hope that much good will be brought about through their efforts. Chrysanthemum societies are now making up their schedules for next autumn's display, and for this reason these remarks may be considered opportune.

Highgate, N.

D. B. CRANE.

## NOTES ON HARDY PLANTS

### ANEMONE SYLVESTRIS.

ONE of the first hundred plants figured in the *Botanical Magazine*, this elegant little plant has been an inhabitant of our gardens since the end of the sixteenth century, when it was introduced into this country from Germany. The popular name "Snowdrop Anemone" was suggested by the drooping habit of the flower-bud before fully expanding, giving it a certain resemblance to that well-known flower. Although generally found growing in shady places in its native habitats, it is not particular in its requirements in cultivation, doing well and flowering freely in most situations and in any good loamy soil; but it succeeds best in a light rich soil, which contains plenty of decayed vegetable matter and in a moist and shady situation. It is easy to increase, as it has creeping roots which it extends on every side, throwing up numerous suckers, which may be divided from the parent plant when necessary for the purpose of propagation.

In common with many other Windflowers, the good-sized white flowers, 1½ inches in diameter, are borne on long peduncles, which arise singly from an involucre of leaves. These leaves are ternate or quinate, with deeply-toothed leaflets, hairy on the under surface. Sometimes two flowers are produced from one involucre, but it is not a frequent occurrence. The accompanying illustration shows the value of the cut flowers for decorations, as they last in water for some time, but they are far more charming when growing naturally in tufts, attaining a height varying from 9 inches to 15 inches, covered with many flowers in April. After these are past their place is taken by little woolly heads containing the seed-



THE SNOWDROP WINDFLOWER (ANEMONE SYLVESTRIS).

(From a photograph kindly sent by M. Corvecon, Floraire, Geneva. The flowers were gathered on the Alps.)

Having a wide distribution, which extends over the central countries of Europe, from France to South Russia and Thrace, this species is also found in the Caucasus. *A. sylvestris* flore pleno is a form with double flowers without the elegance of the type, and frequently having a green centre. A closely-allied plant is the *A. baldensis* from the Alps and Pyrenees, with more tuberous roots, more finely divided leaves, and smaller white flowers tinged with red on the outside.

W. IRVING.

#### DAPHNE GENKWA.

To the superficial observer this appears to be a Lilac, that is to say, during the flowering season. Its natural season out of doors is in April or May, but under glass it will readily flower in January or February. At that time leaves are absent, the leafless branches being studded with loose clusters of flowers, which, as above stated, are much like those of the Lilac. The individual flowers are about half an inch long, and much the same across the petals, which are four in number. The colour of the flowers is a very pleasing shade of bright lilac. *Daphne Genkwa* can scarcely be regarded as thoroughly hardy, for in the neighbourhood of London it succeeds best with the shelter of a wall. It was, I believe, originally introduced by Robert Fortune, but was for a time afterwards almost lost till we were in more ready communication with Japan.

H. P.

#### NYMPHÆAS OF THE ODORATA GROUP

The only *Nymphæa* of this group in my small Lily tank—*sulphurea grandiflora*—was planted there in 1897, and is now behaving precisely in the unsatisfactory manner described by Mr. Greenwood Pim in THE GARDEN of the 16th inst. It bloomed magnificently as soon as it got established, and did well until about two years ago, when it began to go to the bad. During the last two summers few

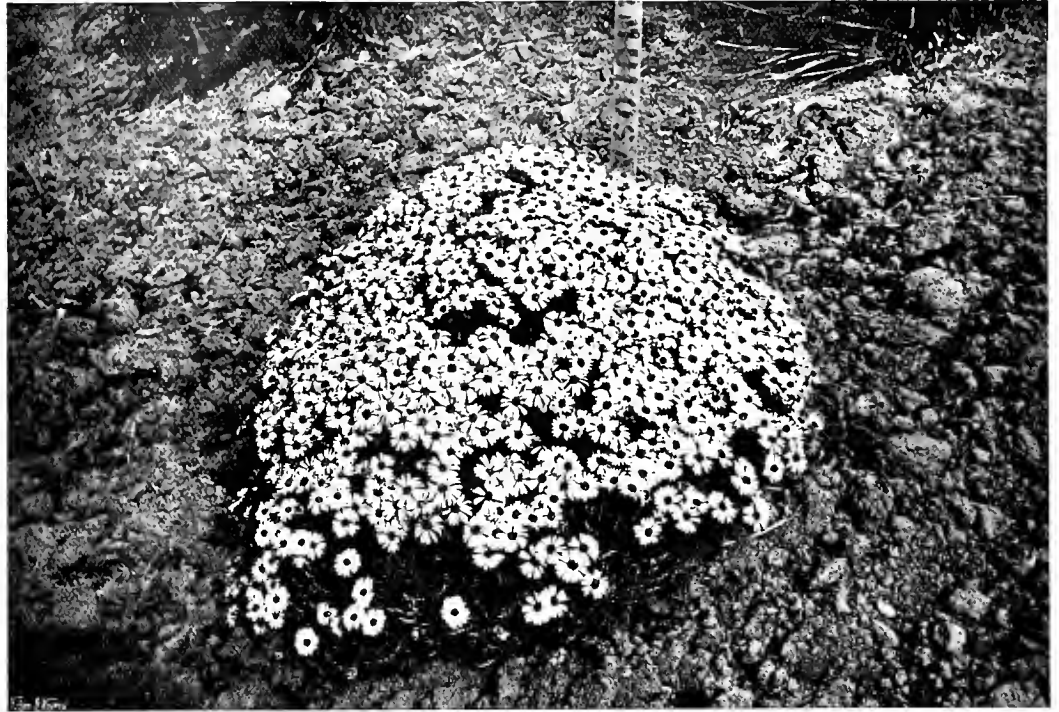
buds have appeared, and these have failed to expand properly, while the foliage has been very weak and scanty. I propose to remove it altogether this spring and put in something more permanent. The other two *Nymphæas* in the tank—*N. Marliacea albida* and *N. Laydekeri rosea*—planted at the same time are flourishing.

S. G. REID.

#### SOME OF THE CELMISIAS

The *Celmisias* form a very interesting genus of Compositæ, closely allied to *Aster* and *Eri-*

*geron*, and confined to New Zealand and the adjacent islands, one species being said to extend to Australia. Upwards of thirty species have been described, thirty-four being given in the "Index Kewensis." Of these a few have from time to time been introduced, but, through the difficulty experienced in their cultivation, they have never become well known, and they are rarely met with. The majority of the known species are described in Sir Joseph Hooker's "Handbook of the New Zealand Flora," and from the descriptions many of them must be very ornamental. The accompanying illustrations show what beautiful objects many of these *Celmisias* are when growing under satisfactory conditions, and if we could solve the problem of their requirements, so as to grow them into such fine specimens as shown here, they would prove extremely valuable for the garden. The great drawback to their successful cultivation in this country is the fact that they are not sufficiently hardy to withstand the winter out of doors, except in favoured localities, while pot culture seems distasteful to them. Good plants have occasionally been grown out of doors, especially *C. coriacea* at Glasnevin. Under natural conditions the *Celmisias* are found in mountainous regions up to an elevation of 5,000 feet above sea level. They grow chiefly among rocks, and are often found in the vicinity of water, the rocky banks of rivers, &c. They are all low-growing herbs, with a thick, woody rootstock and numerous radical leaves, which are usually covered with a silvery or brownish tomentum. The Daisy-like inflorescences are on long, silky stalks, and in the different species vary considerably in size, some being but an inch or so across, while others are quite 3 inches in diameter. The ray florets are usually white, the disc yellow, but



CELMISIA RAMULOSA IN A NEW ZEALAND GARDEN.



CELMISIA CORIACEA.

in a few instances species are recorded with lilac ray florets. The following species are occasionally met with, the dimensions of leaves and flowers being those given in the recorded descriptions :

*C. coriacea*.—This, as seen by the illustration, makes a low, spreading mass. The leaves are from 10 inches to 18 inches long, and from half an inch to 2½ inches wide, lanceolate in shape, and thick in texture. The under surface, together with the stalks and peduncles, is covered with a thick, cottony tomentum ; the flowers are borne in heads 1½ inches to 3 inches in diameter on long peduncles, the ray florets being white, and the disc yellow. It is said to be abundant in the mountains from Nelson to Dusky Bay.

*C. Haastii*.—A strong-growing species with large leaves, which are less woolly than the foregoing. The flower-heads are on short, sturdy peduncles, and are from 1½ inches to 2½ inches across.

*C. Lindsayi*.—A figure of this is given in the *Botanical Magazine*, t. 7134. It makes a dense tuft of leaves 3 inches to 6 inches long ; they are lanceolate, coriaceous, and white on the under surface. The peduncles are about 6 inches high and the flower-heads 1 inch to 2 inches across, the ray florets being white.

*C. Munroi*.—This was introduced about eight years ago. The leaves are linear-lanceolate, about 5 inches long, dark green above, and covered with a white, silky tomentum beneath. The ray florets are white, the disc yellow, the heads being about 2 inches across. A figure is given in the *Botanical Magazine*, t. 7496.

*C. ramulosa*.—As seen by the illustration this makes a dense mass, the leaves being small and short ; the flower-heads are on short stalks, and are about an inch across.

*C. spectabilis*.—It is about twenty years since this was introduced. In habit it is very similar to *C. Munroi*, the leaves being of much the same size and colour. The flower-heads are about 2 inches across, and the ray florets may be white or tinged with lilac. W. D.

## RARE EXOTICS IN ROSS-SHIRE.

MR. MACKENZIE sends the following extract from the *Glasgow Herald*, and asks for its insertion in THE GARDEN. The notes are of much interest, and we gladly publish them.

My last floral notes consisted of an account of my trees, shrubs, and herbaceous plants in 1901.

The year 1902 was a bad year from a horticulturist's point of view. With a severe winter and a worse spring, followed by an ungenial summer, it was most disappointing. Still, it may interest my readers to hear that I had hardly any losses among my many hundreds of rare exotics.

I nearly lost one of my Dicksonias (Tree Ferns), some of my pretty pink *Cistus crispus* died, and also my big bushes of *Veronica Andersoni*, and that was about all ; and in spite of the bad year I had some great successes. Even during that terrible February snowstorm, when the snow lay deep right down to high-water mark for nearly the whole month, my bush of Japan Witch Hazel (*Hamamelis zuccariniana*) was in full bloom, its curious small golden blossoms with crimson filaments looked lovely sparkling in the sun, with the snow as a background.

Later on among startling plants were *Azalea Vaseyii*, a Japanese species with soft lilac blooms, and *Andromeda formosa*, which astonishes everyone, being a glorified *Andromeda japonica* ; and as the season advanced, after reading an account of the blooming of *Abutilon vitifolium* in the Scilly Isles, my own big bushes, some 6 feet or 8 feet high, blossomed profusely. It was a great triumph. They are about four or five years old, and were

raised here from seed procured from the late Mr. Thompson, of Ipswich, and their large hanging bunches of mauve flowers were glorious. This thoroughly hardy *Abutilon* is a shrub which has, I think, a great future before it.

Some of the new Escallonias were very taking, such as *Langleyensis* (red), *Exoniensis*, and *Pterocladon* (white), and are all real acquisitions.

For the first time I bloomed *Kalmia latifolia*. I was beginning to think that it was one of the plants which was going to beat me, and therefore one that I had particularly set my heart on flowering, when all of a sudden one of my plants appeared smothered with buds, and how lovely they were when they expanded !

The eight new *Azaleas* (crosses between *mollis* and *indica*) came quite up to Van Houtte's description of them. They were dazzlingly gorgeous in June, and are as hardy as *Azalea pontica*.

*Cydonia Columbia* I can thoroughly recommend as a bedding shrub ; it is as brilliant as a *Geranium* and as hardy as a *Beech* ; and, lastly, my little *Desfontaineas* gave me great satisfaction. One of them bloomed a second time at the beginning of December, and its long scarlet and orange tubular flowers are so firm and waxy, and, being also protected by its glossy evergreen prickly leaves, no amount of rough weather seemed to injure them. How magnificent they are at Pottaloch, 8 feet high, and broad in proportion, and smothered in bloom. The growth is so like the European Holly that it is sometimes called the Chilean Holly.

And now I have, perhaps, said enough about poor 1902, which, I confess, got more abuse from us gardeners than it deserved, and we will see what can be told of 1903.

At the risk of repeating myself, I must speak of the beauty on last New Year's Day of our famous Tulloch variety of *Rhododendron nobleanum*. It is the most perfect of winter-flowering shrubs, for even if the weather be atrocious, as it was last January, if the sprays with the crimson buds are cut and put in vases in the house they expand to perfection.

We had naturally not much in bloom on January 1 of this year, except *Polygala Chamaebuxus* and *Lithospermum prostratum*, which was a sheet of blue, and evidently imagined it was still on its native rocks on the shores of the Bay of Biscay instead of on the shores of the Minch.

In March the first of my twelve new species of *Rhododendrons* bloomed, viz., *R. ciliatum*, and very pretty it was, with its large pale pinky white bell-shaped flowers ; it was only a tiny plant, 1 foot high, but smothered with blooms, which seemed almost too big for it, and just as it was fully expanded I left for Italy, and saw no more of my shrubs till the beginning of June.

From all accounts the spring of 1903 was quite as bad as that of 1902, only in a different way—viz., perpetual hurricanes of wind, with torrents of rain, which caused as much harm as the hard

weather of the previous spring. Curiously, on my return, the Scotch Firs showed more damage than any of my five species of *Eucalyptus*, which must be hardy to a degree. There is certainly something radically wrong in the modern *Pinus sylvestris*, as, instead of being one of the hardiest, it is one of the worst to stand gales and sea blasts.

I returned just in time to see the finish up of my *Trilliums* and *Erythroniums* ; my gardener told me they had been really grand, and I found a new kind of *Trillium*, with recurved petals of a deep pink, which much fascinated me.

My show plant in June was my big *Crinodendron hookerianum*, about 7 feet high, and the only plant I can boast of as being better than the one at Castlewellan, that garden of gardens in County



CELMISIA HAASTII.

Down. After seeing Lord Annesley's collection, my attempts here appeared very feeble indeed, and my *Crinodendron* was the only thing I could venture to brag of before his lordship.

Well, my *Crinodendron* was just covered with its crimson Chinese lanterns, hanging by long thread-like stalks, a most striking bush ; *Rhododendron racemosum* from Yunnan, where it grows at a height of 10,000 feet ; *Kalmia rubra* and *Erica arborea* were among the most telling on my return home. The first-named of these three would not, I think, be easily recognised as a *Rhododendron* by an ordinary observer.

My big *Erica australis*, alas ! I found dead. I had unfortunately shifted it before leaving, and it is a lesson to me not to transplant tall Heaths. Two *Deutzias* were also striking in June, viz.,

*D. corymbiflora* and *D. discolor purpurea*, and they are well worth getting.

I was glad to find that my *Mutisia decurrens* had stood both winters all right, and both last year and this it has flowered nicely, and though a Chilean by birth it has a South African old-world look about it, and one might mistake it, with its Orange-red stars, for a climbing cross between a *Gazania splendens* and a *Gerbera Jamesoni*. Two species of *Metrosideros* have stood out with me several winters, the one, which is the famous *Rata* of New Zealand, has not yet flowered, but the Australian one has given us a small sample of its crimson bottle-brushes.

My hardy deciduous *Magnolias* are too young for me to be able to say much about them; but I had a very few blooms this summer on *M. Lennei* and *M. stellata*, and I hope for great things from them if I live a few years longer.

from my garden, where it had never been a success in the hot shingly soil, and planted an edging of it to one of my walks in my shrubbery, which I call Japan, in raw, cold, peaty soil, and there it has proved a complete success, and has bloomed profusely this summer. In the same manner the Chilean *Mitraria coccinea*, with gorgeous vermilion flowers like miniature bishop's mitres, which only struggled for life in the garden, has grown into a charming little shrub in my Japan; also *Philesia buxifolia*, from Magellan, just a dwarf bushy *Lapageria rosea*, is beginning to look quite happy with its present surroundings. And this system of changing I mean to continue, as I have still a few things that defy me, such as the so-called New Zealand Broom (*Notospartium Carmichaeliae*), which does so well in that delightful home of rare plants, Loch Hourthead; and the *Carpentaria* and *Encryphia*, which I do not grow to perfection

tinue my tale at some future time, when I have further experiences to recount.

O. H. MACKENZIE, F.R.H.S.

*Incurva, Pooleri.*

## IN A SUNNY LAND.

A BROLLING, dusty road, a low stone wall with purple *Iris* growing on top, further on hedges of Christ's Thorn (*Paliurus australis*) with cruel prickles, making it hard to gather the first rosy flowers of the spring *Cyclamen*, which hid and clustered among the silver-striped leaves of Dead Nettle, then the cool shade of a Cypress avenue, and we were treading on classic ground. How often it comes back to memory that red-letter day in March spent



CYPRESSES AT TIVOLI: IN THE RUINS OF HADRIAN'S VILLA.

The New Zealand Tea Bush (*Leptospermum scoparium*), which is, I am told, as great a plague in Maoriland as the Braeken is in the Highlands, seems quite hardy here, blooms and fruits freely, is very pretty, and quite aromatic when handled. New Zealand and Chilean things certainly suit this damp climate.

Perhaps my greatest achievement this year has been the flowering of *Buddleia Colvillei*. I have two big bushes of it, and one of them produced three sprays of blooms, and when I first noticed it I thought a Foxglove (of which I have many in my shrubberies) had been allowed to grow up among the stems of the *Buddleia*, but on examination I soon saw that it was not a *Digitalis*, though the handsome purple blooms rather resemble a Foxglove or a Pentstemon.

I find that when a plant is not a success the great thing is either to shift it to entirely other surroundings or buy another specimen and try it elsewhere. Last autumn I removed a lot of *Heuchera sanguinea*

yet, though I have bloomed both here; and the *Berberidopsis corallina*, which flourishes so on Inveree House, on Loch Nevis, and several other charming exotics, which I mean to master in course of time.

For the end of October and November, when flowers in the shrubberies are scarce, let me recommend the *Spartinum*, or Spanish Broom, and the white Irish Heath (*Menziesia polifolia alba*): the latter covers my ground in masses, and is at its best in November; and with these and with *Enkianthus japonicus*, a most charming new Japanese shrub, whose leaves turn a dazzling vermilion, no one need complain of dull shrubberies in late autumn. *Lilium auratum* and *lanceifolium rubrum*, and more especially *Crococsmia imperialis*, dotted about among the summer-flowering shrubs, give also a lot of brilliancy to the "fall," as our American cousins call it.

But my story has perhaps been too long, and I cease at present, but only with the hope to con-

on the spot here illustrated. The colossal ruins of Hadrian's palaces, roofless, silent, bathed in golden light and beautiful in decay, spoke eloquently enough of the vanity of human greatness. Sitting to rest on the broken steps of an over-arching portico, gladly we turned our faces from the fallen past to the joyous living present. Scarcely a leaf was stirring. Not far off the mighty spires of a group of Cypresses rose dark against the cloudless blue, solemn, immovable, impressive beyond words, living sentinels standing guard over the relics of the Imperial dead. Below them—a lovely contrast—a sea of grey-leaved Olives, and under the Olives Violets—tens of thousands of Violets—in such amazing drifts of royal colour, and breathing into the warm air such delicious fragrance as seldom comes to one but in dreams. Had



we ever seen Violets before? Or have we ever seen them since? No modest, humble flowerets these, hiding lowly under their sheltering crowns, but strong-stemmed and open-eyed, holding up their heads well above their leaves, and perhaps—yes, just a little flaunting withal. Nevertheless, how lovely they were. What handfuls we gathered, and what would we not give to see the like under the trees in our own garden at home. Other flowers were there as well. Starry Anemones, lavender and white; and stretches of Bugle, not coarse and of no account as we deem it, but dainty and choice with tall spikelets of azure blue. Bushes of Coronilla, too (*C. Emerus*), great bosses of shining gold, grew everywhere. Not the pale-flowered sea green form, which does its best to light up our dull November days, but full-coloured and bright, setting its foot high and low; now happy on the sod, clustering about the bole of some ancient Olive; now in mid-air, clinging in glee to the sunburnt brickwork of ruined pavilion and palace, and laughing at our vain attempts to reach it. A few belated Crocuses still lingered on the grass, but here and there *Romulea* was taking their place, and stained the green sward with patches of purple and orange. And over it all the canopy of an Italian sky and the undimmed glory of Italian sun.

We long, sometimes, to transplant such memories and live them over again in our own land. Like greedy children we want to hug to our own selfish, English heart all the delights that belong by right to other peoples. But it is vain and useless. Far better to let them be memories, and to take with thankful content the treasures that are ours.

These Cypresses for instance. Here and there, though rarely, in stately English domains we do find groups which were planted long ago, admirably placed with regard to both shelter and prospect, and finely grown. But they are Southern trees, no more indigenous, indeed, to Italy than they are with us, and though they may be found everywhere to-day, from the foot of the Alps to Calabria and Sicily, all historic allusions go to prove that the Romans themselves had to acclimate and cultivate them with care and difficulty. It is a tree whose chief affinity is with sun-lit plains, and therefore cannot withstand great rigour of climate. An exceptionally cold English winter may kill or seriously cripple it. And then—how slow of growth! It is impossible to tell how many centuries it has taken to build up those solemn pillars whose fluted shafts tower upwards, sometimes more than 100 feet. Those said to have been planted by Michael Angelo in the cloister garden—it is so no longer—of the old Carthusian Monastery in Rome, certainly do not impress the beholder by reason of

their great size, though presumably they are at least 400 years of age. Columnar trees, besides, must be planted with the greatest judgment, and seldom suit the character of our more Northern landscape. And how is it possible to reproduce the glamour of the sunlight and clear atmosphere which lend them in other lands more than half their charm? But one cannot dog-

## GLADIOLI IN QUEENSLAND.

I NOTE in THE GARDEN that you are interested in what is being done in other parts of the world besides Great Britain, so I am taking the liberty of forwarding you a photograph of a *Gladiolus* that originated with me. It was carried into the town in the sun before being photographed, and is in no way touched up. The photograph is half full size, so that you will see the individual flowers are 6 inches across. The colour is also pleasing, being pale pink, lightly flaked scarlet, white blotch, spotted carmine. It is an early flowerer, rather dwarf, and very free. I have now been raising *Gladioli* for about ten years, starting with selected French strains of *gandavensis* and *Lemoinei*, and adding *Childsii*, and it was from the latter cross that the *Gladiolus* described came. I called it *Kitchener*. I have now some very fine varieties with large, well-opened flowers and massive spikes. One variety grew this year 6 feet 6 inches high. Latterly I have been raising *Hippeastrums*, but have a difficulty in getting really good varieties to start with, and catalogues do not give descriptions, which seems a pity, especially to those at a distance. There are advantages in raising these here, as I have had flowers in one year from seed, and always in two, and the increase is rapid.

WILLIAM PAGAN.  
*Brisbane, Queensland.*

## ROSE GARDEN.

### SOME BOURBON ROSES.

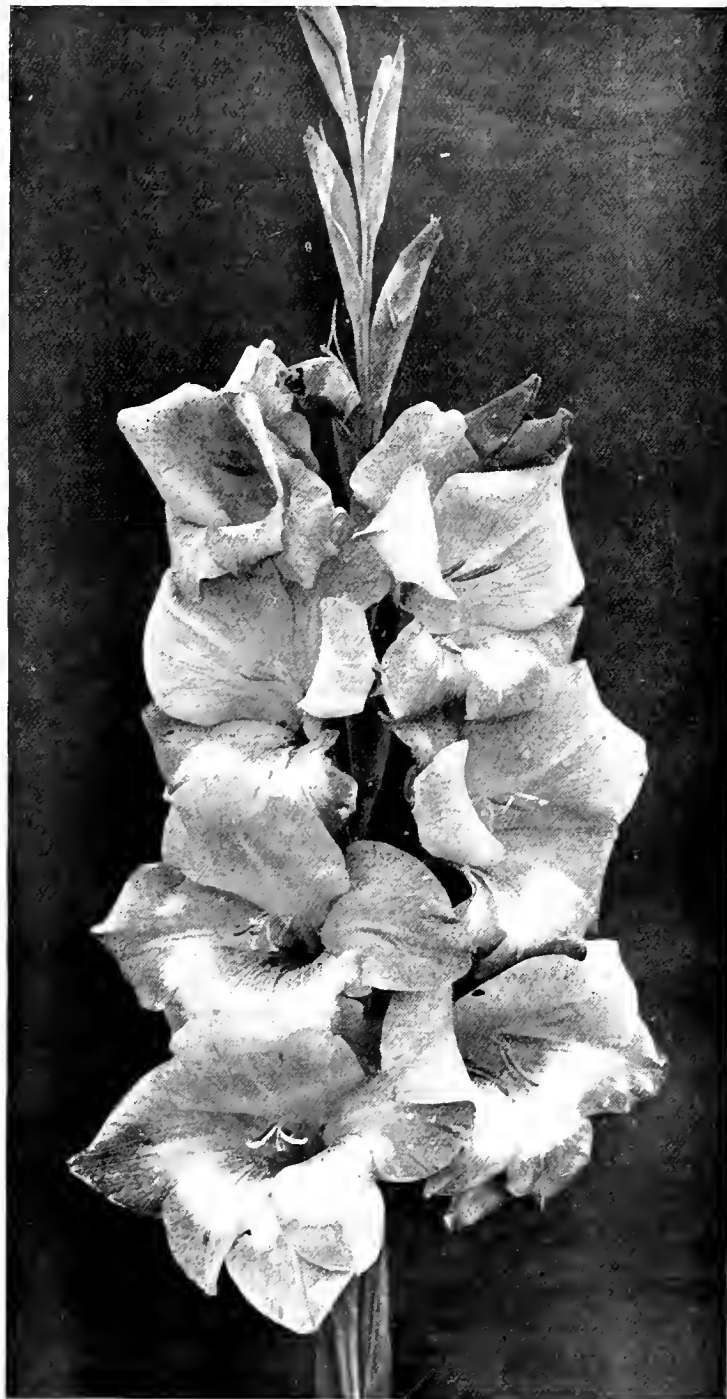
MRS. BOSANQUET.

IT is always rather a moot point whether this variety ought to be classed among the *Chinas* or the *Bourbons*, but the general opinion seems to be that it belongs more to the latter class. Though an old Rose, seeing that it was distributed for the first time in 1832, it is still quite worthy of ranking among our best garden varieties. M. Laffay, to whom we owe this variety, was one of the pioneers of that band of French rosarians who have done so much towards the enrichment of gardens the world over.

This same raiser also gave us the well-known *China Rose Fabvier* the same year as *Mrs. Bosanquet*, and, if these two varieties do not suffice to keep his memory green, there are several other good old sorts from the same source, such as the *Boursault Amadis*, *Coupe d'Hebe*, the

two *Moss Roses*, *Laneii* and *Perpetual White*, all of which are still to be found in many gardens, and, in their several ways, are still of value.

But of all Laffay's introductions none surpasses the variety which heads this note, and I am drawing special attention to it here because it is getting overlooked in the rush for novelties, many



GLADIOLUS KITCHENER. (From a photograph sent from Queensland.)

matise too much. Only it is hard to restrain a smile or a sigh—one scarcely knows which—when one sees such a tree as the evergreen *Cypress* huddled, in company with other trees of like noble aspirations, within the scanty limits of the few square yards of a forecourt garden.

K. L. D.

of which are far behind it in true garden value. I remember a few years ago, when spending a day or two at Worcester with that enthusiastic and skilful exhibitor, Mr. E. Foley Hobbs, how I was more charmed with a large standard of Mrs. Bosanquet than anything else in the garden. It was a splendid example of a standard Rose, being good in shape, and simply covered with dozens of delicately-tinted, flesh-coloured buds and flowers. This Rose is a perpetual bloomer, and, unlike many of the Bourbons, is quite as good in early summer as it is in autumn. The semi-drooping flowers are fragrant, globular, perfectly double, and are sometimes really large, while they stand bad weather well. Moreover, the variety is perfectly hardy, and a half-standard in this garden, though in a terribly cold and draughty position, always proves satisfactory, and flowers from July to the frosts. About seven or eight years ago a quite pure white sport from this Rose was distributed by C. Freundlich, but never seems to have been introduced into this country.

#### MARIE PARE,

distributed by M. Jamain in 1881, is a seedling from Mrs. Bosanquet, very free in bloom, and slightly deeper in colour than its parent. It is really astonishing how little known are some of these old Bourbon Roses, and even now both amateurs and raisers might well give this family a little more attention. Messrs. Paul of Cheshunt have given us two most valuable varieties in Mrs. Paul and J. B. M. Camm, but these, like the ever-popular *Armosa*, scarcely come under the category of little-known Roses, because all are widely grown and appreciated in this country. Reference has been made quite lately to

#### MME. ISAAC PERIERE,

and I am happy to endorse all that has been written about it. Even in this light soil it grows to perfection, and in a neighbouring garden I saw it during early November covered with fine blossoms and rambling up the trunk of a dead tree.

#### SOUVENIR DE MALMAISON,

sent out as long ago as 1844, and its climbing form, which appeared almost exactly fifty years afterwards, are both grand autumn Roses, and it is a great pity that their summer blooms should be so deficient in form. Both make large standards, and prove very hardy in this district.

#### COMTESSE BARBANTANNE,

sent out by M. J. B. Guillot père in 1858, is another useful old Rose, which I came across quite recently. It is a true Bourbon, and has pale salmon-white fragrant flowers of good form.

#### BARONNE DE MEYNARD

(not Maynard, as it is frequently spelt) should also be classed as a Bourbon, and is a valuable white Rose of good shape but little scent.

#### MME. ERNEST CALVAT,

recently referred to by Mr. E. H. Woodall, is also a Bourbon variety, and was distributed in 1888 by Veuve Schwartz, successor to J. Schwartz of Lyons. It is a singular sport, I am informed, from Mme. Isaac Periere, and seems to be fairly well known on the Continent, though never met with in England. The colour is extremely variable, China rose or lilac-rose edged with yellow.

#### ZEPHERINE DROUIN.

A Rose which has more than half-a-dozen synonyms ought surely to be good, and, as regards the above variety, this is certainly the case. Here are a few of the names under which I find it described in Continental catalogues: *Zéphirine Doingt*, *Zéphirin Drouan*, *Zéphérine Drouot*, *Zéphyrine Drouot*, *Zéphyrine Druot*, *Chas. Bonnet*, and *Mme. Gustave Bonnet*. According to Messrs. Nabonnand the correct name is the one which heads this note. This Rose was distributed in 1858 by a Dijon nurseryman named Bizot, and it seems extraordinary that, considering its great popularity abroad, nearly all our English growers omit it from their catalogues. The last synonym—*i.e.*, *Mme. Gustave Bonnet*—is apt to be misleading, because a Rose of this name, belonging to the *Noisette Perpetuels*, was sent out by Lacharme in 1865, and has not yet dropped out of cultivation.

But whatever its name, this is certainly a Rose for our climate, as the flowers open easily and are not affected by wet. As recently noted in *THE GARDEN*, under the name of *Chas. Bonnet* (page 328), it is deliciously but not strongly scented, and a bush in a friend's garden this season has proved very free. The wood is very smooth, and quite as free from thorns as *Mme. Bérard*; the flowers are rosy crimson, and, like those of *Mrs. Bosanquet*, of semi-drooping appearance, while the foliage is dark green and very persistent. It does well when grown upon its own roots. One can but hope that some of these old Bourbon Roses, neglected as they now are, will not be allowed to drop altogether out of cultivation; for many things can be said in their favour, and among their number are several which will grow and flower in situations where the *Teas*, *Chinas*, and even *Hybrid Perpetuels* refuse to thrive. The National Rose Society might do worse than provide a class for Bourbon Roses at their September show next year.

Worcestershire.

ARTHUR R. GOODWIN.

### AUTUMN-PLANTED CUTTINGS.

A LARGER percentage of rooted cuttings would frequently result from those planted in autumn if means were taken to protect them from frost in winter and spring. To achieve this object in winter a good thickness of leaves spread over the whole ground is the best plan one can adopt, but they must be secured by strings or sticks or they will be scattered by the winds. Failing leaves then *Bracken Fern* strewn over the cuttings is the next best thing, and the sooner this is done the better. It is not that the cuttings are tender, but the action of frosts lifts them several inches out of the ground, and rarely can they be put back as they were originally. In spring evergreen boughs form a good protection if these are cut up into rather short pieces and arched over the rows in order to protect the tender growth from spring frosts. P.

## THE INDOOR GARDEN.

### NERINES.

ON the 8th inst. we cut the last of our *Nerine* blooms, after a most successful flowering season, extending over four months, fully 90 per cent. of the bulbs flowering, a fact which has amply repaid us for the little time spent on their cultivation. No other genus of flowering plants can be compared with this for its adaptability, its most easy culture at practically little expense, and yet it is seldom seen even in large gardens. *Nerines* are more easily grown than the majority of South African bulbs, as they can and will grow readily in a frame where frost can be excluded. At the time of writing a batch of seedlings planted out in a cold frame are growing to perfection, and which we hope to flower a season earlier than when grown on in pots. Those in pots are now in full growth, and should be looked over about twice a week for watering purposes. Those that were not re-potted last autumn would benefit by an occasional dose of weak liquid manure. Avoid giving them too much, as they are more liable to shrivel during their resting period. In careful watering at this period of their growth lies the whole secret of success.

W. H. WALTERS.

*Colesbourne Park Gardens, Cheltenham.*

### CYCLAMEN PERSICUM GIGANTEUM.

#### CULTURAL HINTS.

ALTHOUGH the proper season is past for obtaining the best results in the culture of this beautiful winter-flowering plant, nevertheless seeds of a good strain may now be sown for affording

flowers twelve months hence, but those who have them already up will, if due attention is paid to details, gain a decided advantage. No one could fail to admire those shown by Messrs. Hugh Low and Co. at the last meeting of the Royal Horticultural Society. Some six weeks ago, before we started cutting our flowers (and when mention was made of them in *THE GARDEN*), we could have staged 200 plants of equal merit.

#### SEED SOWING.

Seed should be sown early in August, when solar heat is an advantage to quick germination; this should be for the main batch. Another sowing at this date will also prove useful, especially for growing on the second year after slightly resting the corms after flowering; but by sowing in August a good specimen is obtained by the following November, and lasts well into March. For the sowing of the seeds pans or large saucers (provided they have holes in the bottom) should be procured, and filled with soil to the depth of 3 inches or 4 inches. It should consist of equal parts of good mellow loam and decayed leaf-mould, grit, and a liberal addition of silver sand, with a little charcoal dust added. Put the whole through a fine-meshed sieve. The seeds should be placed quite 1 inch apart, as this saves pricking them off, and be covered slightly with fine sandy soil, sprinkling them several times over with a fine rose can. Water will be best given after this by immersing them in a tank of soft water, keeping the rim of the pan or saucer just above water until bubbles cease to rise. All the soil is then saturated. Two or three such waterings generally suffice during germination, but any intelligent person can easily discriminate by lifting the pan as to whether water is required. From the time the seeds are sown until a couple of leaves appear the pans should be covered with sheets of glass, and shaded during bright sunshine with light paper, giving them cool pit or greenhouse treatment where plenty of light can reach them. The period of germination generally extends from six to eight weeks. The seeds being up and glass removed, they should be gradually inured to the sunlight, placing them upon a shelf near the glass, giving them a close and moist atmosphere, slightly spraying them several times a day.

#### FIRST AND FINAL POTTING.

About the middle of November they should be placed in small 3-inch pots, using a similar compost to that for the seed sowing. Place them upon the shelf of the stove or any house with a brisk heat and plenty of moisture, spraying them with soft water, if procurable, several times a day until the cold weather sets in, when twice a day will suffice. About the end of January they will require another move, which should be into a large 3-inch pot, using similar soil and affording them the same treatment until March, when the smallest corms should be given 4½-inch pots and the larger 6-inch pots. The soil for this should consist of two parts good yellow loam, one part half-decayed leaf-mould put through a ½-inch mesh sieve, the loam being broken by hand to about the size of a Walnut; add half a part of dried cow manure, with a similar quantity of burnt earth and old mortar rubble combined, with a good sprinkling of silver sand and a slight sprinkling of fine charcoal, and mix the whole thoroughly together. The pots should be carefully crocked, placing upon the crocks a little soot, taking care to put some rough material, such as fibre from the loam, to keep the drainage clear. After being potted, place the plants in a little warmth and keep close, and lightly spray occasionally, shading them during bright weather until established, always keeping them as close to the glass as possible.

The aim should be to get the corm as large as possible, with plenty of roots and foliage, and the flowers are sure to come, provided the strain is a good one. They should be gradually hardened and brought to cool treatment as the weather permits, giving plenty of air on all favourable occasions. Avoid cold winds by opening the ventilators on the opposite side to which the wind is blowing. Always use soft rain-water, and spray with it also, which should be done often in hot weather. Keep

a tank in a sunny spot for the purpose, and use a light tiffany shading rather than mats during the brightest hours of the day. When the sun begins to decline in the afternoon they may be syringed and shut up, gradually opening the house a few hours afterwards. This induces quick growth. Give them a watering of guano water or Clay's, at the rate of a tablespoonful to the four gallon can, once a week; house them before the severe weather sets in, and place them as near the glass as possible, giving them plenty of room. Some of the best of the varieties may be selected and grown a second year.

C. J. ELLIS.

Warren House Gardens, Stanmore.

## LILIES IN A TOWN GARDEN.

FROM time to time most interesting notes on Lilies have appeared in THE GARDEN, but chiefly from those who are favoured by good and suitable soil and agreeable atmospheric conditions. There are, however, probably many readers who are not so fortunately situated, but are obliged to make the best of a poor soil and such weather as prevails in a suburban district. But even with such drawbacks it is possible to grow very successfully some of the Liliaceae. My experience with their culture in a town garden has not been a long one, but so far I have obtained sufficient results to warrant my trying more sorts. No garden ought to be without Lilies, in even the most unsatisfactory garden a few of them can be made to grow, if they are treated with intelligence and reasonable care.

It is best to begin with a few of those notoriously easy of culture, and gradually to pass on to those more difficult. There are few plants that give more pleasing results for the same amount of trouble than the most robust of the Lilies. Provided they are carefully planted, they need practically no further attention. I do not say that they would not benefit by it, but they do extremely well without it, and this is a point to be considered by those who garden under great disadvantages, both as to soil, situation, and time at disposal.

My soil is similar to that of most town gardens, heavy and poor; in fact, such as would grow very few plants well if it were left alone. The soil gets very wet during winter, for the borders are not properly drained and the subsoil is clay. However, in spite of these disadvantages I have managed to grow some Lilies very successfully. In the first place, all the borders were deeply dug and some manure mixed with them in the autumn. Then where the Lilies were to be planted I again dug the soil, mixing in plenty of sifted ashes, which, of course, are very easily obtained. This was all the preparation given to the borders. When planting the bulbs I made large holes, placing in them a good quantity of rough sand, which I incorporated with the soil. I practically embedded the bulbs in sand, and also mixed a good deal of it with the soil immediately surrounding the bulbs. I paid due attention to the requirements of each Lily as to whether they made stem roots or not, and planted them deep or shallow accordingly. For instance, the following root from the stem as well as from the bulb: *Auratum*, *longiflorum*, *speciosum*, *tigrinum*, *Hansonii*, *croceum*, *Brownii*, and *elegans*, while *chalcedonicum*, *pomponium*, *candidum*, and *Martagon* do not.

I planted the bulbs in January, simply because I received them late; but I believe it is much the better plan, where the soil is heavy and likely to become very wet during winter, to plant in January or February rather than in the autumn. Some bulbs I have recently taken up were partly decayed, but we had an exceptional amount of rain last autumn, which has doubtless made them worse.

The Lily that has done best with me is *L. croceum* or *umbellatum* (the Orange Lily). This one would have expected, for it seems to thrive anywhere. The first year it was good, but the second year it was much finer, and I am hoping that this year it will be better still. Although it grows so well and is so common, it should not be despised on that account, for the deep orange, cup-shaped blooms are very handsome, and, provided the plants are not exposed to the full sun (although this does not appear to affect their well-being) the flowers will last a long time in beauty and give a good succession. I believe this Lily would grow in the most ordinary garden soil without any preparation of the latter,

but there is no doubt that a little help is appreciated. *Lilium Martagon* was very satisfactory, and so also were *L. pyrenaicum* and *L. pomponium*. I cannot understand why, apart from its rather strong scent, *L. pyrenaicum* should never come in for a word of praise. To my mind the greenish yellow flowers, with the rich red anthers, are very effective. *Lilium Brownii* served me in just the same way as recorded recently by a correspondent in THE GARDEN, i.e., it flowered well the first season after planting, but since then has disappeared. It may, perhaps, come up again this season, but I am very doubtful, as I searched for the bulbs, but could find no trace of them.

*Lilium tigrinum* and the variety *splendens* were remarkably successful, and made a brave show. What a much finer plant *splendens* is than the type! I might also say the same of *umbellatum grandiflorum*. The form I have under that name is much finer altogether than *umbellatum*. *L. candidum* was a failure. The growth reached about 12 inches high, then died off, and withered away. *L. auratum* and *L. speciosum* and varieties did fairly well, and *L. Hansonii* was very good. This is strange, as it had, perhaps, the worst position in the garden. It was planted in very heavy soil beneath some Poplars; nevertheless, it flowered well, and the bulbs were quite healthy when I took them up the other day to transplant in better soil. *Lilium superbum* grew well, but did not bloom. What distinct bulbs or rather rhizomes this Lily has! They are white, and the bulbs form at intervals along a thick rhizome, a fact which makes this Lily unsuitable for pot culture. I have recently planted a larger selection, comprising some of the more difficult sorts, such as *pardalinum*, *excelsum*, *szovitzianum*, *canadense*, *rubellum*, and *washingtonianum*.

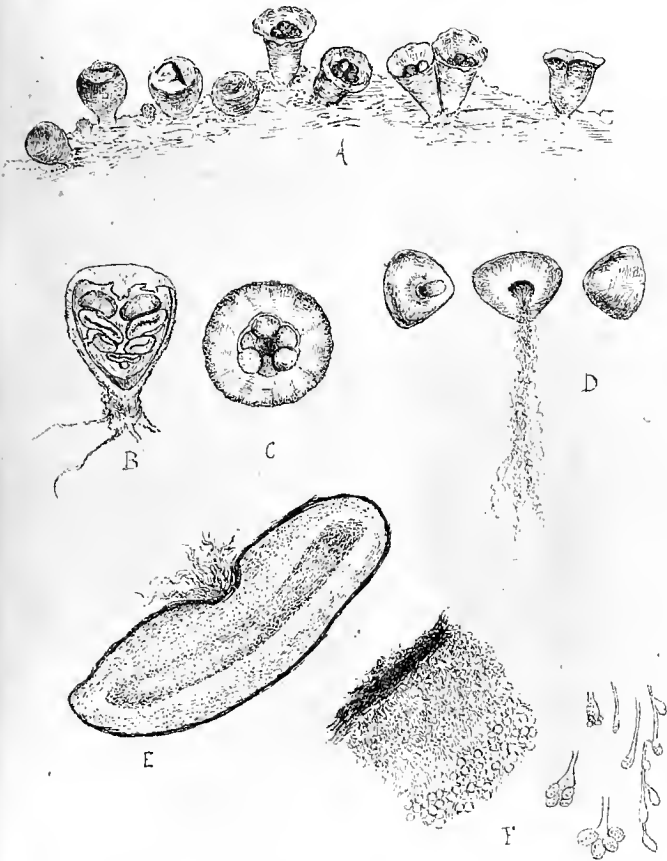
All those I first mentioned were growing in the borders among herbaceous plants, and most of them received a good deal of sun. For these additional ones I have prepared a border which is partially shaded, and although I have not used any peat for those which are said to do best in this material, I have used a good deal of leaf-soil, sand, and ashes, so that on the whole the border may be said to be a great improvement upon that in which the other Lilies were grown. I hardly hope for much success with some of the most difficult ones, yet in the light of past experience I am sufficiently optimistic to expect that most of them will do well. I am now going to try *L. Grayi* and *L. Parryi*. Supposing some are not satisfactory, it will at least be interesting to try and find out how far Lilies will accommodate themselves to the conditions prevailing in an ordinary town garden.

A. P. H.

## THE BIRD'S-NEST FUNGUS

THE wise say there are compensations in every lot, probably that is why my garden, being particularly neglected and full of damp out-of-the-way corners, yields such a plentiful crop of fungi, in which I, making a special study of these humble plants, find some compensation for the deficiency in beauty and vigour of its rightful occupants.

Passing by the moulds that flourish on the decaying plants; the mildews that infest the Roses and *Chrysanthemums*; the rusts that discolour the Hollyhocks and Violets; the *Nectria* that studs the Currant twigs with scarlet spangle; and the *Agarics* that adorn the manure heaps, and spring up around the stumps of decaying trees, I desire to direct attention to one member only of this class, an interesting fungus that year by year never fails to make its appearance in a corner of the garden where some old cutting boxes have been left to rot. Its name is *Cyathus striatus*; it is one of the *Nidulariaceae*, and is known as the Bird's-nest Fungus, and the mature plant is certainly not unlike a miniature nest half full of tiny brownish grey eggs.



CYATHUS STRIATUS (BIRD'S-NEST FUNGUS).

A—Group of plants (natural size). B—Section of young plant. C—Interior of cup. D—Sporangia. E—Section of sporangium. F—Portion of same with basidia and spores (highly magnified).

While many fungi are rapid in growth and short lived, this little plant is slow both in growth and to decay. I generally notice them first in early autumn, and they last on into the spring. They appear in groups as little buff-coloured protuberances upon the rotten wood and soil in the old boxes, more or less round in shape, with a short stalk and rough outer skin. When nearly full grown, and about as big as a Hazel Nut, the top becomes flattened, with a slight rim, across which the now smooth skin is stretched. This soon splits, the skin shrivels and dries up, and discloses a cup-like cavity. Then the rim of the cup turns back, and the plant looks like a tiny erect vase with a smooth reflexed lip, slightly marked with radiating lines, and the interior half filled with rounded, shining, dark grey bodies. These are sporangia or spore-cases, and a section through a nearly mature cup shows that they are closely packed one upon another, to be somewhat triangular in shape, with a convex upper surface, and round depression on the under side, from which springs the short thick stalk by which they are attached to the base or side of cup. Further examination shows this little stalk to be composed of an infinite number of minute knobbed fibres, all twisted and entangled together in such a way that when pulled they will extend a considerable distance, and render the stalk highly elastic.

The use of this elasticity is seen when during heavy rains the spore-cases are washed out of the cups, the stalk spreads out into a long wide trail of fibres, and, by clinging to neighbouring objects and the soil, saves them from being washed away into uncongenial surroundings. A section (microscopic) of a sporangium shows an exterior dense fibrous rind, a zone of colourless parenchyma, and a central mass of closely-packed colourless spores.

At first sight there appears to be little identity of structure between a fungus like a Mushroom and this Cyathus; but they do agree, inasmuch as the spores are in both cases formed by abstriction, from the ends of specialised hyphæ branches or cells, known as basidia, only whereas in the Mushroom they are exposed upon the outer surface of the gills, and are quickly matured and freely dispersed, in Cyathus they are produced *within* a closed sporangium, which is again (at first) enclosed within the cup-like peridium.

Probably the length of time needed for their full development has something to do with these double provisions for their protection. As regards the ultimate fate of the little sporangia, I have never observed any fissure or pore indicating a rupture of the sporangium; they are probably washed out and dispersed a short distance by rain, when the spore-case gradually decays, or is eaten by creeping creatures of the soil, and the ripe spores are set free. But no doubt, like most fungi, the plant chiefly depends upon the growth of its mycelium for propagation. M. J. HUCKLE.

## GRADING AND PACKING FRUIT & VEGETABLES.

(Continued from page 63.)

With green vegetables, such as Cabbages, Savoy, Kale, and Brussels Sprouts, the principal point is to see that each sample is uniform and in the best condition, which is largely a question of care in gathering. For ordinary markets the two first named must be large and with solid hearts; for special sale and for sending direct to consumers a smaller size, but possessing all the other essential characters, is often preferable. Brussels

Sprouts should always be sorted into two grades, all the firmest and most compact into one, and the looser, rougher Sprouts into another; the increased price of the first will pay for this in the majority of cases. To Cauliflowers and Broccoli similar remarks apply; the most even and whitest heads constitute the first grade, the rougher and discoloured the second. As with Cabbages, large heads are required in general markets, but for the best sales moderate-sized perfect samples are the most satisfactory.

Other crops pay for attention in the same way. Rhubarb can be classed in two grades, the longest, straightest, and best coloured forming No. 1 bundles. Celery may be divided into two or three grades, the heaviest and most solid in bundles for salad, the others loose for soups. Asparagus, too, should be placed in two or three grades, according to the length, substance, and blanching; the smallest (Sprue) for soups; all the best in bundles of 25, 50, or 100, the last in larger numbers. Seakale can also be sorted, the best grown and whitest in bundles set upright in baskets.

Tomatoes demand the greatest care in sorting; two, three, and even four grades may be formed. The best in boxes or shallow baskets. The most even and brightest coloured fruits take the lead; there is a special demand for the largest handsome fruits in some markets, but the principal general sale is for good even-shaped, moderate-sized, uniform samples. Cucumbers are graded into two or three sizes; and Vegetable Marrows are also sorted, but in some places large specimens of the latter are most in demand, while in others a medium size is chiefly required.

**SALADING, LIKE LETTUCES AND ENDIVE,** can occasionally be separated into two grades, according to the solidity and blanching of their hearts, but as a rule a uniform sample of one value is preferable, to be regulated by the gathering.

The essential general rules in grading vegetables of all kinds are the following: (1) Exclude all immature, over-grown, coarse, or defective specimens from the leading grades. (2) Make each grade as uniform as possible. (3) Let freshness and fitness for use be the characteristics of all vegetables when consigned to market or consumers. To aid in all this only the best varieties obtainable should be grown, and growers should watch closely for every real improvement on old sorts.

### PACKING FOR SALE.

Wherever fruits or vegetables have to be transferred a distance by road or rail, the best culture and most careful grading may lose all their value through neglectful packing. That many of the defects in market consignments are either due to this or materially increased thereby the majority of salesmen can confirm, and the complaints on this score are as frequent as those regarding inattention to grading. In dealing with fruits the essentials for success are as follows: (1) Use only perfectly sound fruits. (2) Pack firmly, without crushing. (3) Use the best elastic odourless materials as packing. (4) Place all choice and ripe fruits in small quantities and shallow packages.

In the home trade baskets are much more extensively used than boxes, and the most common are round baskets without lids, of the bushel, half-bushel, or half-sieve types. They are strong and durable, but are objectionable for all the best fruits as, even with the most careful packing, the top layers are liable to be bruised, and under careless methods they are certain to be damaged. When Apples, Pears, Plums, Cherries, or Gooseberries are sent in such baskets a covering of paper, with straw or other material, is placed on the top and secured by cross pieces of Willow or Hazel, the points of which are forced through the sides of the basket below the rim. Flat baskets with lids are preferable but expensive, and the difficulty with all these is that they must be charged for or returned. In extensive dealings with market salesmen baskets are supplied at very little cost to the producer, but where it is desired to promote more direct communication between the grower and retailer or consumer some other method is preferable, or the producer must provide his own baskets. It would be helpful in many districts if a local industry

could be developed in cheap basket making; there are few places where suitable Willows could not be grown, and the basket making might be performed in the winter evenings. For useful information regarding Willows and Osiers suitable for the purpose named, see Leaflet No. 36.

(To be continued.)

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

THE ORCHARD HOUSE—PEACHES AND NECTARINES.

**A**LLEXANDER, Hale's Early, and Waterloo Peaches and Nectarines Cardinal and Early Rivers' are forced in pots generally to obtain early fruits. These also save the permanent trees. The orchard house generally is not a forcing house, but one of the most useful houses in a garden. This has been amply proved during the past unfavourable season. It is much better to replot the trees every year, not necessarily giving them larger pots, but fresh soil. Any that have not been potted should now be top-dressed with good loam, lime rubble, and bone-meal, ramming well to make firm. If the pinching was carried out as advised last season, very little pruning will be required, except to remove any shoots to keep the trees in proper shape. Always cut back to a wood bud. The trees should be syriaged over with Quassia Extract, and arranged at the warmest end of the house. The varieties should include the best mid-season and late ones. Very little fire-heat will be required during the early stages of growth, and a temperature of 45° to 50° should not be exceeded until they come into flower, when 50° at night should be given, with a rise of 10° during bright days. Syringe the trees once or twice daily according to the weather, and keep up a constant circulation of air on all favourable occasions.

### PLUMS AND CHERRIES.

These trees can be started together, as both require the same treatment until the fruit is set, when a drier atmosphere must be given the Cherries. Neither will stand very high temperature, 40° at night, with a rise of 10° during day, being quite sufficient until the flowers open, when a little warmth in the pipes must be given. Allow plenty of air whenever the weather permits, and leave a little air on the top and side ventilators night and day. Fumigate the house before the flowers open if green or black fly appears.

### PEARS AND APRICOTS.

These require a drier atmosphere than Peaches and Nectarines, and also a lower temperature to set the blossoms satisfactorily. Go over the flowers daily with a camel-hair pencil, and also tap them two or three times daily.

### PEACHES AND NECTARINES OUTDOORS.

The mildness of the winter will bring wall trees into blossom, and every care should be taken to retard them. If the trees have not been untied, this should now be done, leaving them loose until just before the buds burst.

### APRICOTS OUTDOORS.

These trees also are in a very forward condition, and what little pruning is required should be done. The less winter pruning Apricots receive the better. Remove a few of the worst-placed spurs from old trees, and train in young wood to furnish vacant spaces; cut back weak shoots. Apricot trees are the first to need protection.

Impney Hall Gardens.

J. JORDAN.

### KITCHEN GARDEN.

#### BROCCOLI.

ATTENTION should now be turned to this important vegetable; the sorts on the market are bewildering and by far too numerous. Perhaps it would be of interest to give particulars of the selection made by my esteemed predecessor, who paid great attention to this crop, having tried a great number of varieties. To stand the vigour of our northern climate the hardiest and first to come

nto use after the Autumn Giant and Walcheren are over are Knight's Protecting and Backhouse's Winter White, followed a little later by Snow's Superb. For cutting early in the year Gordon's Niddrie Hybrid is found most suitable, followed by Leamington. Lauder's Goshen White and Alexandra make a good succession. To finish off this crop a good batch of Methven's June should be grown. This is perhaps the latest sort in existence, of exceptional hardness, and is a distinct acquisition. In very severe winters the plants may be lifted and heeled in in a sheltered position. This operation is, however, not often necessary, as the crop has stood as planted for the past three seasons here with good results. Seeds of this vegetable should be procured from the most reliable sources only.

ARTICHOKES.

The change in the weather permits several items in the kitchen garden to be taken in hand. Crops of the above that have been left in the ground may now be lifted. It is the general rule to grow this rather cumbersome plant on the same spot for the production of really first-class tubers. The ground should be well dug and heavily manured. The plot may be replanted at once after that operation has been carried out, planting the second-sized roots. The larger ones may be stored for use.

LEEKS.

If extra large or exhibition Leeks are required they should be sown now. The Lyon is a good sort for this work. Sow as advised for Onions in a temperature of 55°, reducing to 50° as the plants grow. The remains of last season's crops may now be lifted and laid in on the north side of a wall, thus allowing the ground to be dug or trenched.

GENERAL REMARKS.

If any of the autumn-planted Cabbage plants are broken or twisted by wind, the rows may be made up and a slight quantity of soil drawn to the plants. Cauliflowers wintering in the open should be protected by green branches of Spruce stuck thickly round the beds. Branches in frames ought to have plenty of air on all occasions, except during severe frost. Remove all dead leaves and stir the surface of the ground occasionally. Remove all dead leaves from plots containing Cabbages, Savoys, and Brussels Sprouts. This prevents their being blown about, and gives things a tidy appearance.

THOMAS HAY.

*Hopetoun House Gardens, N.B.*

FLOWER GARDEN.

LILY OF THE VALLEY.

ALTHOUGH autumn is the time usually recommended for the annual top-dressing of these beds it is by no means too late to do this now. The best border Lilies of the Valley I have ever seen were lightly top-dressed at the end of January with the clearings from fowl houses, which were kept well dusted with slaked lime. A good layer of rotten manure or a mixture of manure and leaf-soil will also, in most soils, give good results; if the soil is heavy the addition of some sharp sand will be beneficial.

In many places home-grown crowns are forced for supplies of cut flowers from now onwards, and in such places it is convenient to take up, as required, breadths of three year or older crowns. After sufficient of the best crowns are pricked out for forcing the remainder are graded into two or three sizes and replanted. Unless the old soil can be removed and a fresh bed made it will be advisable to replant these crowns in a fresh place, and for this purpose no place is better than a moist border at the foot of a shady wall. For the earliest supply of outdoor flowers a south aspect should be selected. A light, loamy soil, well worked and enriched with a good quantity of manure, will grow good Lilies. Before planting the soil must be made fairly firm. Any surplus crowns, no matter how weak, if planted in a moist spot in a frequented wood will, in a year or so, make a pleasing feature.

THE AMERICAN GARDEN.

The present will probably be found a convenient time to look over the plants and shrubs growing in

the American garden. Where the standard Rhododendrons are grafted on *R. ponticum* the stock frequently makes a thick growth around the stem; this should be kept cut away. Any that are not in a satisfactory condition will quickly improve if a moderate quantity of manure is forked in. Many soils are naturally suited for the growth of these shrubs, and beyond a little leaf-soil or peat at the time of planting will not require any addition. If the soil is of a chalky nature, or is very heavy, it will have to be removed and a suitable mixture provided. Where it can be obtained nothing is better than peat and leaf-soil in equal proportions, with sufficient gritty sand to keep it porous.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

INDOOR GARDEN.

BOUVARDIAS.

Few flowering plants are more popular than these, as during the autumn and early winter months their delicately perfumed flowers appear always to be in demand. The finest flowers, perhaps, are obtained from one and two year old plants, and as for a few weeks now these will have been at rest, cut their shoots well back, leaving one, or not more than two, eyes of the previous season's growth. When new growths are sufficiently advanced, select a number of the strongest for propagation, and these will readily strike root when inserted in a sand bed in the propagating house or around the sides of 3-inch pots that have been previously well drained and filled with a suitable compost, cocoanut fibre, sand, and fine loam being suitable. Bottom-heat of 70° to 80° encourages them to emit roots early. The atmospheric temperature should be about 65°.

GREENHOUSE CALCEOLARIAS.

For making a show in the conservatory or greenhouse these are invaluable during May and the early part of June. Plants that are being grown for this purpose will by this time be ready for removal to their flowering pots, the size of which may be 7 inches to 8 inches, and the best position in which to place them afterwards is on a gravel or sand bed that is raised well up to the glass in a low roofed house or pit. For a few days after repotting withhold water from their roots, but keep the surroundings moist by syringing about the stages and amongst the pots. A light fumigation once a fortnight with XL All is advisable to prevent the appearance of aphid.

HIPPEASTRUMS.

While it may be necessary to repot some of the bulbs that require fresh soil or larger pots, it is unnecessary to repot all the stock annually. The compost in which they appear to grow and flower well is equal parts leaf-mould and fibrous loam, with about a sixth part of coarse sand, and a small proportion of old mortar rubble broken up moderately fine. Plunge those that are repotted in a slight bottom-heat, and avoid as far as possible the application of water to their roots, as syringing to maintain a moist atmosphere will be all that is required until growth is well advanced. The temperature previous to flowering should not range higher than 50° to 55°, giving air on all favourable occasions. Air also is required for plants that are growing, and the temperature should be raised from 55° to 60°; water with manure water.

J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*

NOTES FROM SCOTLAND.

EDINBURGH INTERNATIONAL EXHIBITION IN 1905. THE decision of the Scottish Horticultural Association, at their annual meeting on the 12th inst., to give £60 towards the prize fund of the Royal Caledonian Horticultural Society for their international show in September, 1905, is likely to be much appreciated by the members of the Royal Caledonian, and is a token of the good feeling which has for some time existed between the two societies. The Lord Provost's Committee

of Edinburgh Town Council has also agreed to recommend a grant of £50 from the Corporation funds for the same object.

TREE PLANTING IN GEORGE STREET, EDINBURGH.

For some time proposals to plant trees in George Street, Edinburgh, have been under discussion, and in order to make a practical experiment the City Parks Committee has caused six trees to be planted in the street in the division from Hanover Street to Dowell's Rooms. Should the experiment meet with general approval the planting will be extended, and there can be little doubt that a great improvement in the aspect of this fine street would be the outcome of tree planting all along its length.

FORESTRY IN SCOTLAND.

An important step in the promotion of scientific forestry in Scotland is likely to be taken shortly by the institution of a degree in forestry by the University of Edinburgh, in conjunction with the Scottish agricultural colleges, which has made great strides in practical teaching of late years. It is proposed that the university shall undertake the central work of forestry teaching, but that the provincial work shall be undertaken by the agricultural colleges. The national importance of the promotion of forestry in Scotland can hardly be over-estimated, and it is confidently expected that the establishment of a degree will be of much benefit.

NURSERY GARDENS.

MESSRS. HENRY CANNELL AND SONS, SWANLEY, KENT.

AMONG several flowers the improvement of which Mr. Henry Cannell, sen., is closely identified with, those we shall now concern ourselves with are zonal Pelargoniums and Chinese Primulas, both of which are valuable winter-flowering plants; indeed, they are indispensable. Although

ZONAL PELARGONIUMS

have been in flower for weeks, they are not yet over; in fact, they still make a very bright display in some of the houses at Swanley, a fact that impresses one with their value both as decorative plants and for cut bloom, for Mr. Cannell informed us that there has latterly been a good demand for zonal Pelargoniums as cut flowers. If the petals are gummed slightly the blooms will last in water for a long time. There are many lovely varieties among these plants to-day, a great improvement in every way so far as size and colour are concerned, and none who value brilliant colour in their greenhouses during the dullest months of the year can well afford to ignore them. Take, for instance, six new varieties raised and distributed by Messrs. Cannell in 1903: Duke of Connaught, with large and beautiful magenta flowers, with a pure white eye; Countess of Dudley, a fancy sort, orange-scarlet, with large white centre, the trusses of bloom of great size; Duke of Bedford, rich red, with white eye; Prince of Orange, orange-scarlet; The Rev. H. A. Hall, glowing red-crimson; and The Ghost, with large pearly white blooms of fine form.

Among the older varieties, too, there are many of great merit; those who prefer the semi-double ones (and they have the advantage of lasting longer and being more useful for decorative purposes than the singles) have a large selection to choose from. Some of those Messrs. Cannell consider to be the best are given—Mme. Fournier Sarlovez, bluish pink, enormous trusses of bloom; Grenade Poitvine, light scarlet, with large pips; Jeao Viand, very large, soft rose-pink; Le Colosse, clear red; Gustave Erich, rich clear scarlet; Mme. Charlotte, a variety of dwarf habit, salmon. Of scarlet and orange-scarlet semi-double varieties the best are M. Alf. Erckeiner, a beautiful soft orange; Raspail Improved, a most valuable deep scarlet Pelargonium. Of cerise scarlet, Transvaal and Dr. Verneuil are most to be recommended; while M. Anatole Roseleur, rose-pink; Mme. Grillott, soft

rose; and Tendresse, soft pink, are very beautiful. Of deep crimson varieties, Double Jacoby is the best; Colonel de Villebois-Mareuil is a fine purple; Miss G. Ashworth and White Abbey are the best whites; Madeleine Lemaire and Gustave Lanson and Circe are good salmon-coloured sorts; while Olive Schreiner and Mme. de St. Vallières are whites with Picotee edge.

Among the single varieties are many of great merit, but we can only mention a few, *e.g.*, Princess of Wales, rosy cerise; Duke of Marlborough, intense crimson, tinted purple with white eye; General French, soft scarlet; Mr. T. E. Green, orange; Lord Curzon, rich magenta; Lord Roberts, purple; Countess of Hopetoun, bright salmon, with pure white margins; Mrs. George Cadbury, salmon; Mrs. Charles Pearson, orange-salmon; Barbara Hope, salmon-pink; Sir Wilfred Laurier is white and vivid magenta; Mr. Winston Churchill is magenta-pink, with large well defined white centre; Mark Twain has flowers whose ground colour is almost white, and flaked with carmine; Mrs. Brown Potter is a clear bright pink; Mrs. Williams, rose pink; Snowstorm, Mary Beton, and Mary E. Wilkins, pure white.

Such are a few of the best zonal Pelargoniums of to-day, and it is not too much to say that their superiority over those of twenty or thirty years ago is largely due to the labours of Mr. Henry Cannell.

#### PRIMULAS.

Primulas are slowly yet surely undergoing a great change, and probably it will not be many years before the varieties of *Primula sinensis*, so largely grown at the present time, will be replaced by plants with flowers of equally rich and varied colouring, and far more attractive inflorescence and habit of growth. At any rate, Mr. Cannell, who has been engaged in producing new varieties of Primulas for many years, seems to think this is the case. And it cannot be denied that the varieties of *Primula sinensis*, although almost perfect as regards size, form, and colour of bloom, are too compact, the inflorescences too dumpy even to be called beautiful. Already the hybridist has done much to overcome this fault by intercrossing *Primula stellata*—a plant originally with small, somewhat star-shaped blooms and graceful pyramidal habit of flowering—with the Chinese varieties. So far, the results appear chiefly to be apparent in finer forms of *Primula stellata*, and very beautiful they are; the flowers are larger, of better form, fresh colours have been introduced, while the attractive pyramidal inflorescence remains. Now these improved varieties of *P. stellata* are being crossed with the best forms of *P. sinensis*, and in Messrs. Cannell's Swanley nursery we saw the latest results. The blooms one might almost call perfect; they are so elegant in form, the outline of each petal is so true. Although we do not wish to see artificial symmetry in all garden flowers, there is no doubt that some are better for it, and among them is the Primula.

There are numerous new sorts in Messrs. Cannell's houses, all the result of crosses between the best forms of *P. stellata* and *P. sinensis*; most of them are yet unnamed, so that we cannot describe them individually, but it is not too much to say that they have come to stay. The "dumpy" habit of the Chinese Primula has to a great extent disappeared, to give way to an altogether more graceful plant with branching flower-stems. When Mr. Cannell showed us, side by side, a plant of the old *P. stellata* with small, unattractive, pale purple flowers, and the latest product of the hybridist's art with large, symmetrical blooms and firm, compact leaves, the enormous improvements that have been made were apparent. Messrs. Cannell have several very beautiful white Primulas; the white is quite pure, and, when this is the case, there is none more beautiful. If a so-called white Primula is not white, then its claim to admiration is gone. Among novelties we may mention Cannell's Red Rover (*stellata* type), with clear carmine-red flowers and pyramidal habit; Cannell's Triumph, also of the *stellata* type, rich magenta in colour; and Cannell's White Spray (*stellata*), a pure white, and the flowers are very freely produced. There are, of course, many other varieties of great merit in

Messrs. Cannell's collection; in fact, they are so numerous that we refrain from attempting to enumerate them.

#### TWO VALUABLE WINTER-FLOWERING PLANTS.

We have rarely seen *Coleus thyrsoides* and *Moschosma riparium* more finely grown than in the Swanley nursery. Both these plants have been discussed a good deal lately, and there is no doubt that when well grown they are most valuable during December, January, and even February. The rich blue spicate racemes of the *Coleus* and the white flowers of the *Moschosma* were very striking together; both these are plants that unless well grown are sure to cause disappointment. But, on the other hand, master their culture, which is not difficult to do, and you will be delighted with the results.

## THE FLOWER GARDEN.

### THE AGRIMONIAS.

ALTHOUGH over fifty different species have been described by various authors as belonging to this genus, it may be safely assumed that only a quarter of that number are entitled to specific rank. The distinctive differences between the recognised species are very small, consisting mainly of various degrees of hairiness of the stems and foliage, size attained by the plant, and lax or crowded flower-spike, as well as the size of the fruit and length of the hooked spines with which it is furnished. A genus of hardy herbaceous perennials, its chief home is in the northern temperate regions of Europe, Asia, and America, but it is also represented in South America. They are erect-growing plants, with interruptedly pinnate leaves and usually long spikes of yellow flowers with notched petals, mostly found on roadsides, borders of fields, and in waste places. While they cannot be included among the more showy plants for decorative purposes, they are interesting enough for the mixed or shrubby borders and the wild garden, where they require no special attention. The following is a selection of the most distinct species, all of which are in cultivation, but chiefly in botanic gardens:—

*A. agrimonoides*.—The three-leaved Agrimony is sometimes known by the generic name of *Aremonia*. It is the most distinct species belonging to the genus, being a low-growing dwarf plant, the root leaves of which are pinnate, with unequal leaflets, while the stem leaves are ternate, on short stalks. The flowers are yellow, in leafy panicles somewhat resembling a *Waldsteinia* in appearance, being the largest produced by any of the members of this genus. It is a native of Eastern Europe, inhabiting rough wooded hills from the Tyrol to Macedonia.

*A. Eupatoria*.—The common Agrimony is a well-known inhabitant of this country, frequently met with by the waysides and borders of woods. An erect-growing, hairy perennial, having the characteristic pinnate leaves with unequal leaflets of oval form, coarsely serrated. The flowers are yellow, borne on long spikes, and are succeeded by small burr-like fruits. Having a wide distribution, this plant is found in North America and Asia as well as in Europe.

*A. leucantha* is a plant of doubtful origin, somewhat resembling *A. repens*, of which it may be a weak form, with shorter spines on the fruits.

*A. odorata*.—The sweet-scented Agrimony is also a native of this country, but is not so frequently met with as the common one, as it

is a much rarer plant. It is of a more robust habit, reaching a height of 3 feet to 4 feet, and is much more hairy, with branching spikes of larger yellow flowers. These are closely set on the long spikes and produced in June, followed by larger fruits armed with longer spines. It is generally found growing in thickets and shady places distributed over the greater part of Europe.

*A. parviflora*.—A tall-growing, erect plant, reaching a height of 4 feet to 5 feet, with interruptedly pinnate leaves, the leaflets of which are narrow and often linear, 2 inches to 3 inches long, with serrate margins. The flowers are small and pale yellow in colour, borne on long spikes in July and August. A native of North America, where it is found in woods and dry meadows.

*A. repens*.—The specific name given to this plant does not refer to the stems, which are erect, freely branching halfway up into several long spikes of good-sized yellow flowers, closely packed together. Like most of the other species, this is very hairy, with narrowly ovate leaflets. A native of Eastern Europe and Asia Minor, it is also found in Spain. Other species are *A. incisa*, from North America, with larger flowers than in *A. parviflora*, on a long, lax spike, and with shorter leaflets. *A. nepalensis* has yellow flowers on slender spikes, on erect stems, with ovate leaflets. *A. pilosa* is found in Northern Europe, extending across Northern Asia to Japan. It is similar to *A. Eupatoria*, but is not so hairy, and is often found growing near water. *A. sororia* is a Caucasian plant, with a long, lax inflorescence of small yellow flowers on weak stems.

W. IRVING.

## MISCELLANEOUS.

### THE HARDINESS OF PLANTS.

THE remark that such a plant is hardy, or only half-hardy, or is tender, is one that is often heard, but a proper idea of what is actually meant is not so readily conveyed. The hardness of a plant, that is to say, its ability to withstand the various changes of our climate without injury, and also at the same time to look healthy and grow freely depends upon, firstly, the extent of its adaptability to our climate; secondly, constitutional vigour; and, thirdly, upon its season of growth. For present purposes the United Kingdom may be divided into three parts according to the climatic conditions and their influence on plant growth. The first and warmest part, therefore the most favourable one, is found to the south-west and west of a line drawn from Southampton to Bristol, and then north to Flint, passing over the Irish Sea to Dumfries, and then north-west to Ayr. The whole of Ireland, with the exception of the north-eastern corner, may be included. The second and intermediate part lies to the east of a line drawn from Southampton to Bristol, and then north-east to the Wash. Starting from the Bristol-Wash line, a line nearly due north through Birmingham to Carlisle, would also belong to this second part. The north-east corner of Ireland may be included. The remainder of the country would belong to the coldest division. This classification, however, must not be considered a hard and fast one, as even in the colder localities certain places are to be found where plants will thrive almost as well as they do in the warmer division.

It has been found that half-hardy plants sent from a warm part to a colder one invariably suffer badly, even if they are not killed outright, though the same plants do much better if they have been growing in an intermediate climate. A proof of this is seen by the plants that are sent from England to America annually. Two of these, *Andromeda floribunda* and *Kalmia latifolia*, are natives of the more southern parts of the United States, and

they are found to thrive better in New York and some of the Northern States when sent out from England than if home-grown plants are used. *Rhododendron catawbiense*, again, is a native of the mountainous parts from Virginia to Georgia, and will not thrive at all in most parts of the Northern States, but hybrid *Rhododendrons*, chiefly *catawbiense* strain, do well almost anywhere in the States. *Andromeda japonica* and *Ilex crenata* are natives of Japan which do better in America when imported from England than if they are obtained direct from Japan or grown as nursery stock in the warmer parts of the States.

The season of growth is an important factor in determining the hardiness of a plant. Thus, for instance, *Tilia mandshurica*, *Rhododendron dahuricum*, and *Cercidiphyllum japonicum* are examples of plants that begin to grow too early in the spring, and in most places are crippled by frost as soon as they have pushed forth a few leaves. All three in their native habitats pass through winters quite as severe as an ordinary English one, but their time of starting into growth happens to coincide with the worst phases of an English spring, when a few bright days are followed by sharp frosts. It is not only the spring frosts that cripple plants, but early autumn frosts also cause injury to many otherwise hardy subjects which grow late in the season by cutting their growths before they have properly ripened. These are chiefly coniferous subjects, of which *Abies*, *pectinata* (the Silver Fir), *A. cephalonica*, *Sequoia sempervirens*, and *Cunninghamia sinensis* are good examples. These grow both early and late, and are bound to get cut by frost either in spring or autumn until they reach a height of 10 feet and upwards, when they are above the frost line, and usually escape without further serious injury. The difficulty, however, is to get them up to that height, as the leaders are cut annually and the plants spread laterally without going upwards.

A sheltered spot is usually recommended as the proper situation to plant tender things, but I am rather doubtful if this advice is always correct. Here we used to plant *Escallonias*, *Laurustinus*, *Arbutus*, and *Cupressus macrocarpa lutea* in a sheltered spot, but they somehow got badly injured in most seasons. Now we grow them on a bare hillside, facing nearly due east, and though they grow less rapidly they seldom get injured by frost. With many half-tender plants, however, that get frozen, much depends on how soon the sun catches them in the morning, as if they are so shielded from the sun's rays that they thaw out gradually they will withstand much severer frosts without injury than if they were exposed to the sun and suddenly thawed.

It is my firm belief that many half-hardy plants could be made much hardier if seeds were used as a means of reproduction instead of cuttings, &c. Many of them, however, will not ripen seeds in this country, but if they happen to do so, as they sometimes will in a favourable summer, then seeds should be used as a means of propagating them, and if persisted in for a few generations, a hardier race more suited to withstand our changeable climate would be the result.

Bagshot.

J. C.

**CORRESPONDENCE.**

(The Editor is not responsible for the opinions expressed by correspondents.)

**THE GRAPE FRUIT.**

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue for December 26, 1903, in continuation of the very interesting article on "Gardens of Jamaica," reference is made to the Grape Fruit, and it is said: "It is of about the size of what in the East Indies is called the Pummelo, which is, however, of the Shaddock species." The Grape Fruit is now grown quite extensively in Florida, and is increasing in favour in our markets. American authorities call Shaddocks and Pomeles (our form of spelling), or

Grape Fruit, varieties of the Malayan *Citrus decumana*, but we reserve the name Shaddock for the large, rather Pear-shaped variety, while the Grape Fruit, Pomelo, or Forbidden Fruit, is round and smooth, like an overgrown, pale-coloured Orange. It is thin-skinned for its size, and very juicy, but the tough skin makes it ship well. The inner rind and "rag," or skin separating the pulp, is very tough and bitter, and this bitter sub-flavour often extends to the pulp, but one soon acquires a taste for it. Americans think the Grape Fruit a tonic against malaria, and it is a favourite fruit course at breakfast. To serve the fruit cut across transversely, cut out the tough skin in the centre with sharp-pointed scissors, and loosen the sections from the skin at the sides with a sharp knife so that the appearance of the pulp is not disturbed. The half sections are served on small plates, and the pulp eaten from the skin with a spoon. If desired a little maraschino is poured over the pulp, and a few preserved Cherries are put in the centre whence the skin has been removed. This is a delicious fillip to the appetite, and is often served as a first course at the ladies' luncheons so popular here. The pulp of Grape Fruit scraped from the skin and then returned to the rind, with the addition of a tablespoonful of sherry, is very refreshing and appetising in an invalid. The flavour of the Grape Fruit blends delightfully with red Raspberries, and a most agreeable dessert is made by scraping the pulp and skin from the rind, after cutting the Grape Fruit through as previously described, filling the rind with red Raspberries and then pouring over them the pulp and juice of the other fruit, with a dusting of powdered sugar. In Florida the Grape Fruit is wonderfully productive, a crop of sixteen barrels being reported from a tree twenty-five years old. There are now several fixed varieties of special merit, Mays' Pomelo, which is said to show some admixture of Orange, being considered among the best. Descriptions of warm weather desserts and tropical fruits seem hardly appropriate to our locality just now, as on two days during the past week (the 5th and 6th inst.) the temperature went down to 18° and 22° below zero respectively. Fortunately, there is a heavy blanket of snow, which lessens anxiety for the garden, but I think if my pet plant of *Stokesia cyanea* survives this winter it may justly be described as ironclad.

EMILY TAPLIN ROYLE.  
Maywood, N.J.

[*Citrus decumana* is known by several names: Pomelo, Pumelo, Pummelo, and Pomalo, but Pomelo is the form commonly adopted.—Ed.]

**APPLE BISMARCK.**

[TO THE EDITOR OF "THE GARDEN."]

SIR,—From this variety seems to be evolved the nearest approach to the perfect Apple, judging by the opinion and experience of "D. K.," County Cavan (page 14). To show how diverse is the experience of growers concerning individual sorts, I would point out that the Bismarck Apple is so poor here that I have just headed down a twelve year old garden bush preparatory to re-grafting in spring. The

extent of its crop during that period fell very short of many other cooking varieties cultivated, and therefore I am not keeping even one tree. Though my experience is so different to "D. K.'s," I can assure him that Bismarck, planted as orchard standards, at the Bromham Fruit Farm, Chippenham, now so famous for Chrysanthemums, is the most profitable and best Apple on the red soil of that favoured district. It crops heavily, colours grandly, keeps and sells well; but in spite of all these excellent attributes I am not sure that it combines all that is needed to constitute the perfect Apple. When success and failure become so pronounced an Apple can scarcely be regarded as perfect, though I would certainly not condemn a variety because in a few instances it did not crop well.

Wills.

W. S.

**ORCHIDS.**

**VANDA CÆRULEA.**

WE grow *Vanda cœrulea* in teak baskets, suspended near the ventilators, from the roof of a large stove. All are entirely removed from the baskets in the middle of March, dead roots are cut clean away, and the plants thoroughly cleansed with tepid water. They are replaced, and the baskets are filled with fresh-picked sphagnum moss and pieces of charcoal about the size of a Walnut. The compost is made as firm as possible, and the surface is finished off with living heads of sphagnum moss. Water is given with great care, and only the surface is lightly sprayed with a fine rose so as gently to encourage root action, which begins generally at the end of March or early April here. When



VANDA CÆRULEA IN BROUGHAM HALL GARDENS.

the plants are in full growth and during the summer months abundance of water is given, and the baskets are frequently dipped. By the end of August the plants are not rooting so freely, and the flower spikes begin to appear. At this sign we commence to lessen gradually the supply of water, so as to have the sphagnum practically dry by the end of October. We endeavour to rest the plants as much as possible through the winter months. If the leaves show any signs of shrivelling, we slightly damp with a syringe the outside of the basket and surface of moss, but avoid saturating the whole compost.

Briefly stated, such is the practice carried out here in the cultivation of this lovely Orchid.

A. TAYLOR.

*The Gardens, Brougham, Penwith.*

### THE WEEK'S WORK.

#### REJUVENATING CYPRIPEDIUMS.

THOSE blooms that have been open for some weeks should be cut, and any plants in need of repotting or dividing should be taken in hand at once. To obtain the best results it is most essential that they should be divided from time to time. It is practically impossible to give fresh material to the inside roots of a mass. If the plant is potted the outer growth and roots will benefit, but the centre is in a degree starved. I do not wish to condemn the desirability of growing specimens, but rather the practice of allowing a specimen to remain a specimen.

I prefer growing them until the centre of the plant shows signs of deteriorating, and then pull it to pieces. If some are treated this way each year the stock of specimens can be kept in a more vigorous state. Perhaps no two varieties have been subjected to such severe propagation as *C. insigne* Sanderae and *C. i.* Harefield Hall var., yet they produce flowers of the finest quality, and I have always found that a plant that has adequate room to develop each growth is the one that gives the best results. A good compost for *C. insigne*, *C. Argus*, and other winter-blooming *Cypripediums* consists of one-half good fibrous loam, one-fourth good peat, and one-fourth good leaf-soil, well mixed together, with a fair sprinkling of coarse sand and small broken crocks to ensure porosity. A thorough drainage of chopped rhizomes should be afforded to enable the plants to have copious supplies of water during the growing season.

#### DIVIDING THE PLANTS.

In dividing great care should be taken to preserve as many roots as possible. After working out as much of the old compost as possible, wash the roots until all the old material is gone. It will then be found much easier to see the most suitable places for dividing. All damaged roots should be cut where broken. When restaging the divided plants should be placed by themselves, to allow of rather closer attention being given them for a time. They will require but little water at the root for some time, but the compost should on no account be allowed to remain dry. Keep the atmosphere moist. The potted-on plants should also be watered with discretion till the roots have taken a good hold of the new compost. These also derive benefit from atmospheric moisture. Increase overhead spraying as the days lengthen. The intermediate house temperature is very suitable for their requirements.

#### AMATEURS

wishing to make a start in Orchid growing could not do better than take up *C. insigne*, *C. spicerianum*, *C. Argus*, and some of their hybrids and varieties. I have many times seen these winter-flowering Orchids admirably grown in an ordinary greenhouse; they last in flower many weeks, are of very easy culture, and there are enough distinct forms to make a most interesting collection. Many of them can be purchased cheaply.

W. P. BOUND.

*Gulton Park Gardens, Reigate.*

## BOOKS.

### The Culture of Vegetables and Flowers from Seeds and Roots.

—No book upon the culture of vegetables contains simpler directions for carrying out details which means ultimate success than this publication of Messrs. Sutton and Sons of Reading. It is well printed, well bound, and illustrations are inserted where deemed advisable. The first portion of the book is devoted to vegetables, and opens with the *Globe Artichoke*, followed by the *Jerusalem Artichoke* and *Asparagus*, and in the article on *Asparagus* occur some excellent remarks about the white *versus* the green, though the authors "on the point of taste . . . say nothing; and it is a mere matter of management whether the sticks are blanched to the very top or allowed to become green for some few inches. . . . There is an interesting point in connexion with the production of green *Asparagus*, and it is that if wintry weather prevails when the heads are rising (as, unfortunately, is often the case), the tender green tops may be melted by frost and become worthless, or may be rendered so tough as to place the quality below that of blanched *Asparagus*; for the blanching is also a protective process, and quickly-grown white *Asparagus* is often more tender and tasty than that which is green, but has been grown slowly. As the season advances, and the heads rise rapidly, the green *Asparagus* acquires its proper flavour and tenderness, and thus practical considerations should more or less influence final decisions on matters of taste. The business of the cultivator is to produce the kind of growth that is required, whether white or green, or of a quality intermediate between the two. This is easily done, making allowance for conditions."

There is a most useful chapter upon "Herbs," page 61. The following paragraph shows the praiseworthy nature of the proffered advice: "In the smallest gardens *Mint*, *Parsley*, *Sage*, and both common and *Lemon Thyme* must find a place. In gardens which have any pretension to supply the needs of a luxurious table there should be added *Basil*, *Chives*, *Pot* and *Sweet Marjoram*, *Summer* and *Winter Savoury*, *Sorrel*, *Tarragon*, and others that may be in especial favour."

We looked with interest to the chapter upon the *Potato*, knowing the great work this firm has accomplished in raising varieties that, if not impervious to disease, are less liable to attack than other sorts. The following remarks are truthful, and show the right spirit to regard the sensational developments in disease-resisting varieties that are said to have lately taken place: "Since the introduction of *Sutton's Magnum Bonum Potato* there is a disposition to believe in 'disease-proof Potatoes.' There is no such thing absolutely, and perhaps there never will be, any more than there is a disease-proof wheat, or dog, or horse, or man. But some varieties of *Potato* are known to be more susceptible to the ravages of disease than others, and it has been one of our aims to secure seedlings which combine the highest cropping and table qualities with the least tendency to succumb in seasons when conditions favour the spread of the fungus. . . . To sum up this subject, then, we say that disease may be avoided in the early crops by cultivating sorts which may be lifted before the plague generally appears; and on soils which will not produce an early crop, only such varieties should be grown for the main crops as have been proved to be most capable of standing uninjured until late in the season. Let there be a dry, warm bed, sufficient food, the fullest exposure to the life-giving powers of light, and conditions favourable to early ripening." An invaluable guide is given, beginning at page 146, on "A Year's Work in the Vegetable Garden," and articles upon "The Rotation of Crops," "The Chemistry of Garden Crops," "The Culture of Flowers for Seeds," "A Year's Work in the Flower Garden," "The Making of Lawns and Tennis Grounds," and "The Insect and Fungoid Pests that Trouble the Gardener." The book is thoroughly practical, and is written in a straightforward way. There is no attempt at "fine" writing;.

### A Flora of the Island of Jersey.†—

This is an interesting guide to the flower life of sunny Jersey, and reveals that the study of the flora has been conscientiously undertaken. In his lengthy introduction the author writes: "At the present time Jersey presents six different kinds of station, and each, to a very large extent, has its own flora. (a) Sandy beaches, sand-dunes, and sandy fields near the sea; (b) granite sea cliffs; (c) salt marshes—these have almost entirely disappeared; (d) rough moorland and hillsides; (e) ordinary, cultivated, flat table-land; (f) sheltered, moist valleys and low-lying meadows. It is worth noticing that most of the plants of South and West Europe which form the most interesting feature of the Jersey flora affect station a." The arrangement of the flora is based upon Engler's "Die Natürlichen Pflanzenfamilien," and, happily, the author publishes an arrangement of the genera of British plants in accordance with Engler's system. It is severely technical, and presented in a way that can only appeal to the ardent botanist, which is perhaps as well. Such books have little interest to the ordinary tourist, as the arrangement and scanty descriptions are to him almost unintelligible. A meteorological table embracing eight years is published, and the following remarks about the climate are interesting. The author writes: "The climate of Jersey is mild and equable. Summer merges almost imperceptibly into autumn, and autumn into winter, and cold weather is rare before the new year. Severe frosts are very unusual, and snow seldom lies long upon the ground. The coldest months are January and February, the warmest July and August. The number of hours of bright sunshine is large (1,930 on an average of fifteen years; *Rev. H. W. Yorke, Quarterly Journal of Meteorological Society*, July, 1899), but the air is always laden with moisture, and often feels more chilly than the thermometer readings would seem to indicate."

**A Book About Shrubs.‡—**A capital little book about shrubs, with sensible advice upon selections of the best kinds, arrangement of the shrubbery, propagation, and other aspects of a subject which is becoming of increasing importance in English gardens. There are several helpful illustrations.

## AMERICAN NOTES.

### A WINTER BOUQUET.

AS we are far from any florist we must, in winter, depend upon our own resources for flowers and plants with which to decorate the house. A few days ago I wanted some evergreens to make wreaths and garlands, and to fill vases and jars, in order to give the house a more festive appearance than usual; so I took a large basket and a pair of shears and sallied out to see what I could find in the garden and shrubberies. I went first to the rockery, and looked at the clumps of

#### GALAX APHYLLA,

the plant from North Carolina that furnishes occupation in early winter for so many of the mountain folk, who gather the leaves to send to all our largest cities for holiday decorations. But my clumps are too small and too newly-established. They could only spare me a few leaves here and there. There are two varieties of *Galax* leaves, the green and the bronze. I do not know what makes the difference in colour. Mine belong to the green-leaved sort; but the bronze is the prettier, and makes very effective wreaths. Leaving the rockery, I next followed the path that leads to the Oaks until I came to a large clump of the common

\* "The Culture of Vegetables and Flowers from Seeds and Roots." By Messrs. Sutton and Sons, Reading. Eleventh edition. Published by Messrs. Simpkin, Marshall, Hamilton and Co., London. Price 5s. net.

† "A Flora of the Island of Jersey." By L. V. Lester-Garland, M.A., F.L.S. Published by Messrs. West, Newman, and Co., 54, Hatton Garden. Price 6s.

‡ "A Book About Shrubs." By G. Gordon. Published by John Lane, Vigo Street. Price 2s. 6d.



JAPANESE EUONYMUS

full of well-berried shoots. The glossy, neatly scalloped, dark green leaves and the bright berries presented just the combination I was looking for, and I paused to wonder why this Euonymus has not found more favour with the dealers in decorative greens. It makes charming wreaths, and remains fresh a long time. It is true that this Euonymus is not hardy in our colder States, but it could be imported from the South as well as the Galax. My bushes are not very large, but there are many of them; so I took a liberal contribution, and passed on a few steps to halt again in front of our prime favourite, the

JAPANESE MAHONIA,

which does much better here than the American species. It is a great spreading bush 6 feet in height. Its lower branches rest upon the ground, and its large spiny leaves are green and glossy. Its shoots are terminated by many tassels of flower-buds, which hang with a graceful droop, giving promise that they are seldom able to perform, of abundant blossoming in early spring. Some of these shoots were added to the basket. The bright yellow wood of this Mahonia is very tough, and it was prickly work to cut them, as the sharp spines on the leaves pierce like needles; but I knew how effective these little branches would be in vases and jars, so I persevered until I had secured a good many of them. The foliage of this Mahonia is the best substitute we have for that of the Holly, though the leaves are much larger than Holly leaves. The American Holly does not find the soil here very congenial, and its growth is exceedingly slow. After reading the accounts lately published in THE GARDEN of the beautiful Hollies so much grown in England, we are anxious to experiment with some of them, and hope to make a small planting of them next spring; but very few of the broad-leaved evergreens used in England do well with us. Passing on into the wild garden, the next halt is made in front of

SIEBOLD'S EUONYMUS,

a large bush whose foliage is almost evergreen. It is at least persistent, though it has a drooping and wilted appearance in the winter. But the little orange and red berries glow like fire coals, and are thickly clustered all over the bush. These will be pretty to mingle with Box and other evergreens, and to decorate the long sprays of Vinca minor that we use for garlands. The evergreen Thorns add some sprigs and branches, but I look in vain for fruit. Some long sprays of evergreen Honeysuckle are next secured, and I search the Bush Honeysuckles for berries, but find them too much shrivelled, such of them as have been spared by the birds. Ivy is rejected, as too closely associated with funerals. The Yucca bank seems more promising, for I know by experience to what use I can put the sheaths of sword-shaped leaves of Yucca filamentosa, Y. angustifolia, Y. flaccida, and some other kinds. They mingle well with other evergreens in large jars, or can be used to give foliage to plumes of Pampas Grass.

This almost exhausts our list of broad-leaved evergreens. Even the humble herb bed is not to be overlooked in this niggardly season. Two or three good bunches of Thyme, Sweet Marjoram, and Hyssop are placed in the fast filling basket, to lend their aroma to our winter bouquet, and in a sheltered corner I find some clumps of Lemon Balm looking almost as fresh as it did in May. My next thought is of bright-berried plants. By the gate I find a group of

THUNBERG'S BARBERRY,

with abundant scarlet fruit, and scant shrivelled foliage of dull salmon-pink. This is just the thing to give a few touches of colour to our decorations, so a liberal quantity of it is cut.

Another valuable find is the Bitter Sweet upon the old Cedar trees of Cedar Ledge. I gather all that I can reach, half reluctant to deprive the Cedars of such a pretty ornament. Rose hips are now too much shrivelled, though I can find a few here and there still plump enough to serve my turn. The odd mauve-coloured berries of the Callicarpa

are dainty with their metallic lustre, and can be used with bunches of Grasses and in other ways.

Now I must look to the Pines and other narrow-leaved evergreens to complete my collection. An oddly-contorted branch of

PINUS MASSONIANA

delights my eye, as I picture it the sole occupant of an ancient dark blue jar of some odd Chinese ware, which is one of my greatest treasures.

The Austrian Pine is a fine cheerful shade of green, much better than our native White Pine, which looks unusually rusty. So I cut and snip here and there with a lavish hand, for the Pine is large, and will not miss its contribution to our festivities.

I pass by Retinosporas, Arbor-Vitæ, Cephalotaxus, and other evergreens with only a critical glance, for our hard winters dull and brown them past usefulness. Then I come to my favourite

DOUGLAS SPRUCE

to prune it a little with a tender hand. I love to feel its soft yielding foliage, but the young tree is such a fine symmetrical shape that I am afraid of spoiling it by a careless use of the shears. Now, although the White Cedars and some Spruces and Firs look very desirable, my load is as heavy as I care to carry, so I go back to the house well pleased with my gathering. With the few Palms, Ferns, and potted plants that we have, including a fine Araucaria, I have material enough to make the hall and living rooms bright for many days.

DANSKE DANDRIDGE.

Shepherdstown, Jefferson County,  
West Virginia, U.S.A.

OBITUARY.

MR. HUGH FRASER.

By the death of Mr. Hugh Fraser, nurseryman, Leith, which took place on the 13th inst., at the age of seventy-one, as already announced in THE GARDEN, Scottish horticulture loses one who was widely known and deeply respected. All his career was associated with the nursery trade, but his duties necessarily brought him in contact with many private gardeners and others, by whom he was greatly esteemed. All who knew him regret his loss. Mr. Fraser was born in 1833, in the Leith Walk Nurseries, then belonging to the firm of Eagle and Henderson, for whom his father was manager. Naturally, with the tastes he showed at an early period of his life, Mr. Fraser elected to follow his father's vocation, and began his career in the employment of Messrs. Purdie and Merlees, who had at that time a nursery called the Stanwell Nurseries, the offices and greenhouses being on the site now occupied by the Bonnington Road School. Afterwards the business was taken over by the late Bailie Methven, with whom Mr. Fraser remained. The development of this business, now so well known as that of Messrs. T. Methven and Sons, one of the leading firms of its kind in Scotland, afforded a good opportunity for the energy and knowledge of Mr. Fraser, who eventually rose to become traveller and manager. This position he retained with the full confidence of his employers and of their clients until a few years ago, when ill-health caused him to give it up. He took a great interest in the formation of the now flourishing Scottish Horticultural Association, and was long a member of its committee, and for some time occupied the position of president. The papers he contributed to its meetings were much valued. Mr. Fraser was also a Fellow of the Botanical Society of Edinburgh, and an honorary member of the Edinburgh Field Naturalists' Society. A lover of literature of all kinds, it is not surprising that Mr. Fraser utilised the knowledge of his profession in the preparation of a valuable little work entitled "Handy Book of Ornamental Conifers, Rhododendrons, and Herbaceous Plants," which was published by Messrs. Blackwood and Sons in 1875. It was a thoroughly practical book, and, besides many valuable notes on the subjects embraced in the title, treats of other American-flowering shrubs in a lucid way.

He had a special knowledge of Rhododendrons, Ivies, small shrubs generally, and ornamental trees. Mr. Fraser is survived by two daughters and two sons, the latter being in the United States. One who knew him for forty years said: "We were acquainted for upwards of forty years, and we parted as we met—friends." This was the feeling of all who knew him. A large number of friends attended his funeral at Rosebank Cemetery on the 16th inst.

MR. THOMAS W. EMERSON.

MR. THOMAS W. EMERSON, one of the oldest seedsmen of New England, died on the 28th ult. at the age of seventy years. Mr. Emerson was born in Windham, N.H. When a young man he served as a clerk in the agricultural warehouse of Nourse, Mason, and Co., the predecessors of the Ames Plow Company, after which he established himself in the seed business in Boston, holding a position high in the trade for forty years. He was the best known man in Boston in the specialty of field seeds, did an immense business therein, was a member of the Boston Chamber of Commerce, and was one of the most esteemed and popular men in the seed trade. One daughter—Mrs. Gardoer Murphy—survives him.

MR. W. RATCHELOUS.

By the death of Mr. Ratchelous, on the 22nd inst., St. Neots loses one of its foremost townsmen. He was the secretary of the St. Neots Horticultural Society, and also of the Chrysanthemum Society, both of which offices he had held for a long time, while he took a deep and active interest in institutions connected with the town. He had been under medical treatment for some months, but, being a man of considerable vigour, it was hoped he would have recovered, but a quick relapse set in, and he died as above, at the age of 58 or 60 years. A member of a family always much respected in the neighbourhood, and connected with gardening, his father having been gardener at Priory Hill many years, he commenced to work in the garden when quite young, and was eventually gardener at Waresley Park in the district. For the last thirty years he had acted as manager of the St. Neots Nursery of Messrs. Wood and Ingram of Huntingdon, where he was a most successful grower of Cucumbers for seed. As a judge his services were much in request. He acted as local secretary for the Sandy Horticultural Society, and had been a judge at the Sandy flower show for many years. He will be sorely missed by his employers. He leaves a wife and grown-up family.

MR. BENJAMIN WELLS.

THE death is announced of Mr. Benjamin Wells, nurseryman, of Crawley, and formerly of Forest Hill. Mr. Wells was found dead in a well near his house. He was nearly seventy years of age, and had been unwell for some time.

**Annual outing of the Societe Francaise d'Horticulture.**—The summer excursion of members of this society, on a date in June or July yet to be fixed, will be to East Burnham Park, Slough, the residence of Harry J. Veitch, Esq. They will find much of interest in the gardens there, which have been greatly altered of late years.

**East Ham Amateur Chrysanthemum Society.**—This flourishing East End society, which was started in January, 1903, has proved so successful that after defraying the expenses of the year's working, which included a very successful exhibition, the committee have handed over to the East Ham Hospital the sum of £18 15s. 3d., and carry forward a balance of £2 7s. 2½d. Evidently there is no misgiving as to the future of the society.

**National Chrysanthemum Society.** The annual general meeting of the members will take place at Carr's Restaurant, 265, Strand, W.C., on Monday, February 1, at seven o'clock in the evening, Charles E. Shea, Esq., president, in the chair. Agenda: To receive the committee's report and

balance-sheet; to elect a president, vice-presidents, officers, an auditor, and one-third of the committee for the year ensuing; and to transact such business as pertains to the annual general meeting.

**Piedmont Horticultural Society's Jubilee.**—A preliminary notice of the Jubilee exhibition of plants, flowers, fruits, &c., to be held by the Piedmont Horto-Agricultural Society, has already appeared in a former issue. We are now able to state that the dates have been definitely fixed for May 10 to May 25 next, and that the show will be the first of its kind ever held in Italy. The Municipality of Turin has generously placed the Valentino Park, in that city, at the disposal of the executive of the Piedmont Horto-Agricultural Society, and a very fine display is expected. The show is intended to be international in fact and not in name only, and the executive are very desirous that any amateur or professional horticulturist who wishes shall exhibit. Schedules, which are very comprehensive, include 289 classes, and can be had on application to the secretary. In the hope of being able to secure some material support from Great Britain, Mr. Radaelli, vice-president, and Mr. Roda, Commissary-General, intend shortly visiting this country. In the meantime intending exhibitors may get full particulars from the secretary direct—Rue Stampatori, 4, Turin, Italy.

**SOCIETIES.**

**GARDENERS' ROYAL BENEVOLENT INSTITUTION.**

The annual general meeting was held on the 21st inst., at the Covent Garden Hotel, Mr. Harry J. Veitch, treasurer of the institution, presided, and there were some twenty-five persons present, including Dr. Masters, Messrs. Arthur Sutton, P. C. M. Veitch, G. Paul, N. F. Barnes, J. McIndoe, George Monro, Jesse Willard, E. T. Cook, H. G. Cox, W. Baker, J. H. White (of Worcester), and others.

The following is the report for 1903:—

**REPORT OF THE COMMITTEE FOR 1903.**

In presenting their annual report and statement of accounts (as audited) for the year 1903, the committee have the pleasure of again congratulating the members and subscribers of the institution on its continued success and increased usefulness in affording relief both of a permanent and temporary nature to those who, through sheer misfortune, due to accident, ill-health, old age, and reduced circumstances, have been compelled to apply for its assistance in their time of need.

At the beginning of the year 204 persons—being fourteen more than at the corresponding period in the previous year—116 men and 88 widows were receiving life annuities of £20 and £16 respectively. Of this number during the year sixteen have died—nine men and seven widows. Six of the men left widows, whose cases were such as to warrant their being placed on the funds for the widow's annuity of £16, without election, and in accordance with Rule III. The committee have also reinstated on the funds a former pensioner, who had voluntarily relinquished his pension for the time being on account of his altered circumstances. There were thus at the close of the year 192 pensioners on the funds, and the committee recommend an election this day of twelve additional pensioners to fill the vacancies created.

They much regret that in view of the present income, and having regard to prudence, they are unable to recommend the election of a larger number, the more so as the list of candidates shows so large an increase on that at any previous election, but they would remind the subscribers that no less than twenty-eight additional pensioners were placed on the funds in the Coronation year (1902), which materially added to the liabilities of the institution.

The special funds, viz., the Victorian Era Fund and the Good Samaritan Fund, are, happily, still a source of incalculable benefit and help. From the former fund, £135 10s. has been distributed during the year to the unsuccessful candidates who had previously been subscribers, in proportionate amounts, according to the number of years they had subscribed; and from the latter fund, which is for the assistance of subscribing and also non-subscribing applicants, no less than £81 has been awarded in temporary assistance in cases of urgent need, many of which were of a particularly distressing and pathetic character. The grateful letters which have been received from the recipients of aid from these special funds, as well as from the general fund, show how much the help was needed, and how greatly it was appreciated.

The committee would also refer to the generous and thoughtful kindness of Mr. N. N. Sherwood, a trustee and member of the committee, who at the last election presented each unsuccessful candidate, who had been a subscriber, or the widow of such, with the sum of £5. Mr. Sherwood's generous liberality proved most acceptable and was greatly valued.

The annual festival dinner, which took place in June, under the presidency of the Right Honourable the Earl of Warwick, was very successful, and resulted in a substantial sum being raised in aid of the funds, and the committee are much indebted to his lordship. They also take this opportunity of tendering their best thanks to the stewards, collectors, donors of flowers, the Horticultural Press, and to other friends and helpers throughout the country, who in any way, either directly or indirectly, contributed to the success of the festival. The committee have likewise to express their

grateful thanks to the Earl of Ilchester for kindly allowing his beautiful gardens at Holland House to be opened—on the occasion of the flower show of the Royal Horticultural Society—to the public, part of the proceeds obtained therefrom being handed over in aid of the funds of the institution.

The several auxiliaries, viz., Bristol and Bath (hon. secretary, W. J. Harris), Worcester (hon. secretary, Mr. Percy G. White), Devon and Exeter (hon. secretary, W. W. Mackay), Wolverhampton (hon. secretary, Mr. R. Lowe), Reading (hon. secretary, Mr. H. G. Cox), and Liverpool (hon. secretary, Mr. R. G. Waterman), still continue to be a source of strength and much support to the institution, both financially and by creating a wider interest in the work, and the committee gladly record their gratitude to the hon. secretaries and local committees for their kind and much-appreciated services.

It is with deep regret the committee have again the melancholy and sorrowful duty of referring to the many losses amongst the friends and supporters of the institution they have sustained during the past year—losses which will be severely felt, and vacant places it will be difficult to fill. Nevertheless they feel confident that the friends of the institution who remain will not relax their efforts, but will use their utmost endeavours to fill up the gaps in the ranks of those who so kindly and generously assisted to maintain the work. There are at this election no fewer than fifty-three applicants, and if only twelve are elected, forty-one must perforce, beyond what assistance may be afforded from the special funds, to which allusion has already been made, wait for another year before they can again apply for the aid they seek.

Their cases are most sad, and the committee sincerely wish it was in their power at once to grant them, or at least some of them, that permanent assistance for which they plead and of which they are so much in need. The committee, therefore, whilst thankfully acknowledging the help afforded them in the past, very earnestly appeal to all friends and well-wishers for their co-operation in obtaining additional support for this national horticultural charity so as to warrant an enlargement of its beneficent objects on behalf of those, in their days of need, who in their time have done their best to minister to the pleasures and necessities of others.

**BALANCE SHEET, 1903.**

<i>Receipts.</i>	
To balance .....	£1,021 19 0
„ amount on deposit .....	3,165 10 0
„ annual subscriptions .....	£1,580 11 3
„ festival dinner .....	2,049 17 3
„ return of income tax .....	63 1 0
„ advertisements .....	55 12 0
„ dividends and interest .....	868 10 3
	4,617 11 9

Total .....

*Expenditure.*

By pensions and gratuities .....	£3,716 6 8
„ expenses of annual meeting and election .....	12 8 9
„ rent, cleaning, firing, light, &c., and secretary's and clerk's salaries .....	515 0 0
„ printing, including annual reports, polling papers, &c. ....	£108 7 3
„ stationery, including cheque books .....	26 18 11
„ advertisement in Ely's Charities .....	3 3 0
„ festival dinner expenses, £174 2s.; less dinner charges, £109 4s. ....	64 18 0
„ postages, including reports, appeals, voting papers, &c. ....	53 0 4
„ travelling expenses .....	3 7 4
„ carriage, telegrams, repairs, and incidental expenses .....	7 17 10
„ bank charges .....	0 6 4
	267 19 0
„ amount placed on deposit .....	3,265 10 0
„ balance with treasurer .....	1,022 3 10
„ „ „ secretary .....	5 12 6
	1,027 16 4

Total .....

**VICTORIAN ERA FUND, 1903.**

<i>Receipts.</i>	
To balance, December 31, 1902 .....	£139 4 10
„ donation, 1903 .....	£5 5 0
„ dividends, 1903 .....	123 17 6
„ return of income tax, 1903 .....	8 1 9
	137 4 3
Total .....	£276 9 1

*Expenditure.*

By gratuities .....	£135 10 0
„ balance, December 31, 1903 .....	140 19 1
Total .....	£276 9 1

**GOOD SAMARITAN FUND, 1903.**

<i>Receipts.</i>	
To balance, December 31, 1902 .....	£208 13 7
„ annual subscriptions, 1903 .....	£1 1 0
„ donations, 1903 .....	65 14 0
„ dividends, 1903 .....	55 1 0
„ return of income tax .....	3 19 9
	125 15 9
Total .....	£334 9 4

*Expenditure.*

By gratuities, 1903 .....	£81 0 0
„ balance in hand, December 31, 1903 .....	253 9 4
(Signed) THOMAS MANNING. Total .....	£334 9 4

T. SWIFT.  
J. WILLARD.

Mr. Veitch, in moving the adoption of the annual report and balance-sheet, said although they would have been glad to be able to put more applicants on the list of pensioners, they still had cause for congratulation, for although the number of applicants was larger last year than ever before, they had also been able to put on more than on any other occasion. Mr. Veitch emphasised the necessity of doing all they possibly could so as to reduce the number of unsuccessful applicants. They had had no complaints about the alterations in the rules; if the committee felt that at some future time the rules needed further alteration, then they would appeal to the meeting again. The chairman said how desirous it was that gardeners should join the institution when they were young, the younger they were upon joining the more votes they would have to their credit. They wanted more money for the Victorian Era Fund, as was shown by the fact of there being so many unsuccessful applicants. Mr. Veitch said how very grateful they were to Lord Ilchester for throwing open his beautiful gardens at Holland House to the public and giving the proceeds of the admission charges to the gardening charities. This year Lord Ilchester has promised to allow a local hospital to benefit, but in 1905 he promised that the gardening charities should again benefit. They were also very grateful to Mr. Sherwood for his liberality to unsuccessful candidates last year. The chairman referred to the valuable help afforded by the auxiliaries, to whom they were very grateful. Since the voting papers were issued two of the candidates had died, so they would ask for two others to be put on. Also providing Thomas Cridland, aged 74, blind and unsuccessful seven times, was not elected they would ask for him to be put on the list of pensioners. Mr. Veitch said that he had been invited to preside at the annual festival dinner in June next, and he hoped that he should have the full support of all members and friends. Mr. Arthur Sutton seconded the resolution (which was passed *nem. con.*), and said he thought it would be a good thing to put in the report the amount of money each auxiliary had forwarded; he thought this would act as an incentive, and be productive of increased help.

Mr. Arthur Sutton proposed that Mr. H. J. Veitch be re-elected treasurer of the institution, and that their best thanks be given to him for his services. Mr. Sutton eulogised Mr. Veitch's services to this institution, and said what immense help he had given. Mr. N. F. Barnes seconded this proposition, remarking that the interests of the institution were safe in Mr. Veitch's keeping.

Dr. Masters proposed the re-election of the secretary (Mr. G. J. Ingram). This was seconded by Mr. Vallance and carried unanimously.

Mr. Baker proposed that Messrs. W. Crump, M. Gleeson, James Hudson, A. Mackellar, R. Piper, S. Segar, N. F. Barnes, P. C. M. Veitch, and W. Y. Baker be re-elected members of committee, and that Messrs. J. H. Veitch and J. Laing. Mr. G. Monro seconded this, which was unanimously carried. The auditors, arbitrators, and scrutineers of the ballot, the latter being Messrs. Edmund Monro and Joseph Rochford, were then elected.

Mr. Arthur Sutton very generously offered to give a year's pension to one of the unsuccessful candidates, to be appointed by the committee, an offer that will undoubtedly bring great joy to the recipient.

**RESULT OF THE POLL.**

Henry Cross, 3,423; William Chambers, 3,545; Abram Stansfield, 3,444; Frederick Smith, 3,300; Eliza E. Doherty, 3,297; Richard Nisbet, 3,224; Jane Edwards, 3,186; Henry Rabbitts, 3,091; William Turner, 2,906; James Worthington, 2,955; Richard Skuner, 2,902; Edward Foster, 2,842; Andrew Armstrong, 2,838; George Dale, 2,796; William Smith, 2,784; and Thomas Cridland, 1,816.

There were 28 unsigned papers totalling 200 votes, and 3 papers giving 15 votes more than they were entitled to. Votes of thanks to the chairman and scrutineers of the ballot closed the meeting, and at 6 p.m. the

**ANNUAL FRIENDLY SUPPER**

was held in the hotel, Mr. Leonard Sutton of Reading presiding. Among those present were Messrs. Harry J. Veitch, W. A. Biley, Edward Sherwood, George Bunyard, George Paul, H. B. May, George Monro, G. Asbee, N. F. Barnes, P. C. M. Veitch, Arnold Moss, Peter Kay, S. Segar, Anderson, Morgan Veitch, E. J. Monro, Duncan Tucker, J. McIndoe, Denning, S. T. Wright, W. Roupell, H. Cox, G. J. Ingram (secretary), and others.

After the loyal toasts, Mr. Leonard Sutton proposed "Continued Success to the Institution." Mr. Sutton said that successful candidates would by now have had news of their election, and would feel unbounded gratitude to this institution for its timely help. The chairman referred to the Prince of Wales's famous speech at the Guildhall, in which he said that England must "wake up," and said that the gardening public should wake up and help this splendid institution. At Reading they had tried to do this, and had established a very successful auxiliary. The auxiliaries were very valuable, as they are a link between the committee in London and people in county districts. Mr. Sutton thought small amateurs were the people to get hold of, and he was glad to hear that a leaflet was to be put through the Journal of the Royal Horticultural Society. Only £3 per annum is spent in advertising the Gardeners' Royal Benevolent Institution, and Mr. Sutton said he would like to make a special subscription for advertising its claims, and about which he would consult with the secretary. He thought an enthusiastic committee as they had was one reason of the success of this institution. They were trying to get all the members of their Gardeners' Society at Reading to subscribe to the Gardeners' Royal Benevolent Institution. The chairman concluded by coupling the name of Mr. Harry J. Veitch with the toast.

\* Put on by committee in consequence of the death of two candidates since the voting papers were issued.

† One year's pension given by Mr. Arthur Sutton, Reading.  
‡ Placed on the list of pensioners by committee by a rule which gives them power to elect any unsuccessful candidate they may choose.

# THE GARDEN

No. 1681.—Vol. LXV.]

[FEBRUARY 6, 1904.]

## ROYAL HORTICULTURAL SOCIETY.

ON Tuesday next the Royal Horticultural Society will hold its annual general meeting. This is the hundredth year of its existence, and all who have the welfare of this great horticultural organisation at heart will enter into the spirit of the occasion, and allow the proceedings to pass off without anything in the nature of a hostile attack upon an overburdened and faithful council. This meeting should be one of peace, and a hearty vote of confidence to those who govern its affairs will do much to help the two great funds the council have in hand, namely, for the Hall and the Wisley Garden. It has been whispered, though perhaps there may be no truth in it, that the formation of a scientific department at Wisley will be hotly opposed, in the belief that all work of this character should be carried on at Kew. We have the greatest admiration for the botanical and other work accomplished in the Royal Gardens, but we cannot think that a scientific department at Wisley will cause the slightest jealousy at Kew. This department will be simply to encourage research in matters affecting the garden, diseases of plants and so forth, with no intention whatever of setting up an opposition shop.

Those who have the affairs of the society under their control would not place themselves in a position so ridiculous and impossible. The work would be similar to that undertaken in the Botanic Gardens at Regent's Park, and the more we have of such organisations for the encouragement of scientific study the better for our farms and gardens.

We are sorry to find that Baron Schröder has been compelled to issue a second appeal on behalf of the Hall fund. We hope his earnest efforts to reduce the still heavy outstanding amount or wipe it off altogether will meet with a liberal response; and the garden also will cost a considerable sum for its lay-out and up-keep. The more urgent of the two funds is that of the Hall, and visitors to the annual meeting are invited to inspect the new building.

The new Hall will prove a boon to the many special societies that are constantly appealing to the Horticultural Club for the use of its rooms at the Hotel Windsor. The club is a refuge for various societies and committees,

and requests for its use are frequently granted, sometimes with considerable inconvenience to the members. The rooms at the new Hall will, we presume, be the meeting-ground in the future.

The society during the past few years has flourished amazingly, for the simple reason that its watchword is "Horticulture." It is the great centre for horticultural exhibitions, lectures, and meetings, and the garden at Wisley will represent the practical side of its work in promoting trials of fruits and vegetables, developing the scientific department, and laying the foundation of a school for gardening, managed by practical men.

We must confess that raising the subscription to £2 2s. will not please the country members, and the council may expect some opposition from those who cannot enjoy the delight of visiting the fortnightly meetings and the great exhibitions, though we venture to think no society in the world gives so much for the sum of £1 1s. a year. The Journal itself is worth more than that, and it must be remembered, to repeat the words in the report, "Free advice" is given "on all ordinary garden subjects; investigation of plant diseases, &c., by the scientific committee; a share of plants at the annual distribution; facilities for chemical advice, &c."

## THE LILIES.

### LILIUM ELEGANS (THUNB.).

**VAR. ATROSAUGINEUM**, the Dark Blood-red *L. elegans*.—A form of the variable var. *fulgens*, grows 18 inches high, flower-buds and growth quite woolly, the leaves ascending. Flowers two to four, narrow petalled, not expanding fully, coloured blood-red, heavily spotted darker low down, the tips alone being free from spots. Flowers late in July. Common in cultivation.

**Var. Batemanniae** (Mrs. Bateman's Apricot Lily).—A tall-growing plant, suggesting hybrid origin. The stems are 2 feet to 3 feet high, clothed with narrowly lance-shaped, recurving leaves, and bearing four to six rich apricot-coloured, widely expanding flowers of great beauty, quite unspotted, and arranged in a pyramidal spike. The petals are broad, elegantly recurved, and their margins are undulating. A lovely Lily, blooming in late August. The bulbs are large, and much prized as an article of food in Japan. Common in cultivation.

**Var. Beautiful Star** is a newer garden form of *atroanguineum* type. Its stems are 18 inches high, and they bear three to six very large

orange-red flowers 6 inches to 7 inches across the petals.

**Var. Beauty** is a kindred plant; the flowers are of a paler orange shade, with reddish flushing near the tips. Both flower in July, and either variety is rare in cultivation.

**Var. bicolor** (Moore) (the Two-coloured *L. elegans*) is a dwarf variety; the season of flowering varies considerably. Stems 1 foot high, flowers one to three, broad-petalled, expanding fully, but thin in texture, the tips alone reflexing; colour crimson, buff below; a lilac sheen suffuses the inner surfaces shortly after they expand, and a few irregular splashes of crimson adorn the tips. A very beautiful variety, but very fleeting. Flowers in July, but a few stragglers bloom in August and September. Its colouring and season of flowering are uncertain. Common in cultivation.

**Var. bilijulatum**.—See var. *sanguineum*.

**Var. brevifolium** (Baker and Dyer).—The short-leaved *L. elegans* is a very difficult variety to manage successfully. Its growth is precocious, and the leaves and buds are often "bit" by late spring frosts. It does not grow well in pots, and as its flowers are small it is scarcely worth cultivating. It grows 12 inches to 18 inches high, and has cup-shaped flowers, the petals of which are narrow and distant; coloured a pale red, and dotted low down with black. Frequent disaster to the leaves in a young state gives the plant no opportunity of building up large bulbs that would flower well and develop their true quality. Flowers in May. Common in cultivation.

**Var. citrinum**.—See var. *armenaicum*.

**Var. coruscens**.—See var. *atroanguineum*.

**Var. E. L. Joerg** is a robust, large-flowered hybrid, 18 inches high; leaves stout, recurving, thickly arranged on the stems; flowers three to six, crimson, with a spoon-shaped patch of yellowish buff in the middle of each broad petal. The stems often travel several inches underground before appearing, and this feature, together with its large, deeply cup-shaped flowers and large bulbs, indicates var. *Wilsoni* as a parent. A fine garden Lily, blooming in late August. Common in cultivation.

**Var. fulgens** (Morren).—This is a very popular form on the Continent; in this country we find *atroanguineum* stronger and better. Its stems do not exceed 9 inches in height, and they bear two to five thin-petalled flowers, coloured a brick red, the petals being quite narrow and distant, and they expand fully. A dark chocolate spotting occurs near the centre of each, and a marbling of yellow suffuses the outside of the flowers.

**Var. flore-pleno**. Its double form is a singular plant, with the stamens partially transformed into petals; this coloured similarly to the type, but the filling of smaller petals in the centre is tipped with white. It cannot be recommended as a beautiful garden plant, but many would value it as a curiosity. It often finds its way to popular auction rooms as "the wonderful

Bird's-nest Lily of Japan," accompanied by a very lavish description of its beauty, and some romantic accounts of its origin. Common in cultivation. Flowers in July.

*Var. Horsmanii* (Horsman's L. elegans) is a very richly-coloured form, now very rare. The plant is none too vigorous, hence its scarcity; the flowers expand fully, their petals being broad and spoon-shaped, highly polished, and their colour is the deepest crimson-maroon imaginable. A splendid variety, but almost extinct. Rare in cultivation. Flowers in July.

*Var. Kikak.*—See alutaceum and marmoratum.

*Var. marmoratum* (the Mottled L. elegans) is an old variety, one of the earlier forms introduced from Japan. It grows 10 inches high, and bears two to four deep crimson broad-petalled flowers 6 inches across, tipped and spangled yellow on the inner surfaces, the outer colouring being yellowish buff and quite undecided, and the whole plant is woolly.

*Var. marmoratum aureum* (the Golden Mottled L. elegans)=*var. robustum* is a Lily of strong growth, and densely covered with a silky covering in a young state. Its stems are 18 inches high, and they bear three to six broad-petalled flowers that expand widely and are yellow in colour, densely spotted from tip to base with deep red; a few flecks of red and a little deeper shading occur on the outside. Heavy rains at the time of flowering bleach the petals badly. It grows very freely and increases fast, and its colouring is brightest when the plants grow in peat or heath soil. Very common in cultivation. Flowers in June and July.

G. B. MALLETT.

(To be continued.)

## NOTES ON HARDY PLANTS

### TEUCRIUM FRUTICANS.

ONE can hardly think that "S. G. R." will find *Teucrium fruticans* a suitable shrub for his group of blue plants. For one thing, it is not bright enough to be called a real blue, and the silvery appearance of the under sides of the leaves, the greyness of the upper part of the foliage, and the pale colour of the flowers would make it more suitable for a "grey garden." Then, with me it has never assumed a true, erect habit, although this may be partly owing to its being occasionally cut back by frosts. From what I have seen of it elsewhere it appears to be more suitable for a wall than for planting in the open. I have had it here for several years. It is pretty in every way, but hardly what is wanted by your correspondent.

### MITRARIA COCCINEA.

IN some respects gardeners are fortunate whose lot is cast in the warmer districts of the kingdom, for they can hope to cultivate in the open air many plants which those in the colder parts can only induce to grow when under the protection of glass. That this is a great advantage few will gainsay, as in the open these plants often look more at home, and are less liable to the attacks of pests than when under glass. Among the plants which are unmanageable in the open air in the greater part of these isles, but which thrive in such parts as the Exeter and coast districts of Devonshire or Cornwall, the south of Ireland, and in a few places in the west of Scotland, such as at Inverewe Poolwee, is *Mitraria coccinea*, which is not only well worth growing in these favoured districts, but deserves the protection of glass in colder places. It is one of the most brilliant of a number of showy plants which have come to us from Chili and its dependencies. It is a handsome evergreen shrub with

brilliant scarlet flowers. These are produced from the axils of the leaves on long foot-stalks, and, to use a familiar illustration, remind one in form of the blooms of a Foxglove, with the long style protruding from the mouth of the tube. The leaves are small, and of a pretty green. It usually begins to bloom late in May, and may continue until July if the weather is favourable. A good, well-established plant will grow to 3 feet or 4 feet in height. In the districts already mentioned the *Mitraria* may be cultivated against a wall, but it prefers some shade, so that this should be studied in planting. In especially favoured localities it may be cultivated as a bush, but this is not prudent everywhere. It likes a soil of good turfy peat and loam, either in the open or when grown in pots. It dislikes an arid atmosphere, either in the open or under glass. *Mitraria coccinea* is more easily propagated than many other plants of shrubby habit, as it may be increased by dividing the roots in spring, or by cuttings struck under a bell-glass in light soil in summer. It is a shrub which especially deserves some notice at the hands of those whose gardens are situated in the warmer parts of Great Britain and Ireland, and no one who succeeds with it will ever regret its possession.

### GALANTHUS CILICICUS AND G. OCTOBRENSIS.

THIS handsome Snowdrop flowered here in the autumn of 1902 from bulbs imported that year from its native habitats, but this year the same bulbs did not bloom until about the same time as those of your correspondent "F. H. C." Many newly imported bulbs flower earlier the first season than in succeeding ones, and thus it is hardly prudent to expect that *G. cilicicus* will again bloom in November with us. At the same time, it may be noted that in its native habitats *G. cilicicus* is in flower from November to March. As you remark in your editorial note, *G. cilicicus* is a species from Cilicia, and *G. octobrensis* a variety of the common Snowdrop. *G. octobrensis* has the white line down the centre of the leaf, which distinguishes most of the autumn-flowering varieties of *G. nivalis* from those which bloom in spring. My experience of these autumn Snowdrops is that they are gradually assuming the habits of the common Snowdrops, and bloom later and later almost each year. Even in the United States they seem to be adopting the same habit, as Mr. J. N. Gerard of New Jersey has a remark to this effect in a recent issue of *Country Life in America*. S. ARNOTT.

*Carsethorn, by Dumfries, N.B.*

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 8.—United Horticultural Benefit and Provident Society Committee Meeting.

February 9.—Royal Horticultural Society's Drill Hall Meeting; Annual Meeting at 3 p.m.; Horticultural Club Annual Meeting, 5 p.m.; Annual Dinner, 6 p.m. Sir John Llewelyn, Bart., chairman of the club, will preside.

February 10.—East Anglian Horticultural Club Meeting.

February 12.—Royal Gardeners' Orphan Fund Annual General Meeting.

February 23.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

March 8.—Royal Horticultural Society's Drill Hall Meeting.

March 9.—East Anglian Horticultural Club Meeting.

**The Horticultural Hall Fund.**—Baron Sir Henry Schröder, Bart., has issued a second appeal to those who have not subscribed to the Hall fund, and we hope the response will be a liberal one.

**Royal Horticultural Society.**—The next meeting of the committees will take place on Tuesday next, the 9th inst., in the Drill Hall, Buckingham Gate, Westminster. The annual general meeting of the Fellows of the society will also be held in the Drill Hall at 3 p.m. on the same date.

Fellows attending the meeting are invited to inspect the new Hall now building in Vincent Square. At a general meeting held on Tuesday, the 26th ult., 119 new Fellows were elected, amongst them being Lady Hindlip, Lady Wynford, and Sir John Aird, M.P., making a total of 172 elected since the beginning of the present year.

**The Royal Horticultural Society and the trade.**—We understand that since the issue of the Royal Horticultural Society's report, and the issue of an appeal for funds for the new Hall by Baron Schröder, the society's offices have been bombarded with letters to the following effect: "May I express a hope that those members of the trade who make such liberal use of the society, either at the Hall, or at the Temple, or Holland House, for their exhibits, should be called upon either to support the funds in a handsome manner directly, or be made to do so indirectly by having in future to pay for all space allotted to them at shows. For I have noticed in looking over the subscription list for the new Hall that several who are most constant and liberal in their application for space for their exhibits are equally conspicuous by the absence of their names from the list of subscribers."

**Rainfall in 1903.**—I have sent you the rainfall taken in these gardens. I began to make notes in the year 1879, but 1903 is by far the greatest fall for twelve months. The average for this part in fifty years is 24.95 for the twelve months, but in 1903 we got 41.14 for the year, and 171 days on which more or less rain fell.

Month.	Total	Greatest fall	Number of	
	depth.	in 24 hours.	days on which '01 or more fell.	
	Inches.	Depth.	Date.	
January ..	2.74	.64	4	17
February ..	1.40	.38	22	9
March ..	3.72	.52	6	19
April ..	2.32	.63	28	12
May ..	3.14	.62	3	15
June ..	6.69	1.25	15	9
July ..	3.19	.74	23	12
August ..	3.29	.75	11	19
September ..	2.28	.53	10	13
October ..	7.90	1.15	27	27
November ..	1.94	.87	27	12
December ..	2.53	.75	10	7
Year ..	41.14			171

—W. J. TOWNSEND, *The Gardens, Sandhurst Lodge, Wellington College Station.*

**The annual New Year gathering** of the employees of Messrs. J. Hill and Son, Lower Edmonton, took place at the residence of Mr. J. E. Hill on the 21st ult., when about thirty were entertained to dinner. After the toast of the firm had been enthusiastically honoured, Mr. Hill referred to the anxiety caused during the past year by the floods. Mr. Hill acknowledged his indebtedness to the men who so willingly and cheerfully helped him to overcome the difficulties they had experienced from time to time. He believed that 1904 would turn out better than 1903, and, with their help, hoped the firm would surpass all previous years. Remarks were also made by Mr. J. Maton, Mr. Worthington, and Mr. Stuart (foreman), the latter, in moving the best thanks of the employees to Mr. and Mrs. Hill for their kind entertainment, testified to the kindly feeling existing between master and men. Music followed, and a thoroughly enjoyable evening was spent.

**Damage by rain.**—The English farmer is in despair. After the ruinous floods of autumn he hoped for a good seeding time, but it is proving one of the worst within recollection. Where the constant rains are not washing away the seed they are rotting it or preventing its maturing. In Essex and Lincolnshire particularly the outlook is very gloomy. Several farmers in the former county have ploughed up large quantities of Wheat sown in the autumn, as there was no prospect of it growing. Greenstuff left standing for seed production is being similarly affected. Horticulturists also are complaining bitterly. "Somehow," remarked a leading Covent Garden dealer recently, "people's minds do not turn to flowers when the weather is dull and rainy. One would think that the gloomier the conditions outside the brighter the people would try to make their homes. But the contrary is the rule."

**The Woodland Plants of Scotland.**

The last monthly meeting of the Edinburgh Field Naturalists' and Microscopical Society was an unusually interesting one to many. A valuable paper on "The Rarer Woodland Plants of Scotland" was read by Mr. David S. Fish, of the Edinburgh Royal Botanic Gardens. It dealt in an exhaustive and able manner with the characters of the different woodland growth, and gave interesting details of the rarer plants to be found. Among the plants spoken of were *Pyrola niflora*, *Linnaea borealis*, and *Trientalis europæa*. Their liability to destruction by the cutting down of the trees under which they thrived, and the effect produced by the planting of other trees, were dealt with and illustrated with lantern views. The lecture was worthy of a wider audience. Another interesting feature of the meeting was an exhibit by Mr. J. Fraser of specimens of 250 alien plants collected by him last year, principally near the Leith Docks.

**A winter-flowering Wallflower.**

—Everyone appreciates Wallflowers in the spring, and there can be little doubt that the winter-flowering Wallflower will be made welcome. Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a small group of it at the last Drill Hall meeting of the Royal Horticultural Society. The name of this new Wallflower is *Cheiranthus kewensis*, a hybrid between *C. mutabilis* and the garden Wallflower; the flowers vary in colour, pale purple predominating, and they are sweetly scented. It will undoubtedly be largely grown when better known, for the Wallflower is such a general favourite that a greenhouse winter-flowering one cannot fail to be made much of.

**The Citron and Shaddock in vineries.**

—I note in THE GARDEN of last week, page viii., a report of Mr. Somers Rivers' lecture on the above family, and it is recommended to grow them on the back walls of vineries. Grown thus they give very little trouble indeed. When I lived in the Midlands we had them growing in this way, and they were much valued for preserving, making a delicious compôte for the winter dessert. Few plants thrive more freely in a narrow, shallow border if the back wall of the house is not too much shaded, as, though a little shade is not injurious, if there is too much the flowers do not set freely. I have also noticed that the extra warmth given to the Vines in the spring suited the plants when in bloom. I have frequently seen Orange trees fail to set simply because there was insufficient warmth. When the fruits are almost full grown they are, as it were, stationary, and less heat is required, but when new growth begins the trees repay liberal treatment. My reason for sending this note is to point out the value of the Citron for preserving, and the fragrance of its flowers is much liked by many, but it requires a shallow border. If grown in pots or tubs it should get ample drainage. I am unable to say if the Kumquat was noticed at the lecture. This is *Citrus japonicus*, and, though less seen than any of the others, it is useful for the cool house and will stand cold. We have fruited it in a cold house, and I have seen it growing freely in Cornwall and Devon in the open.

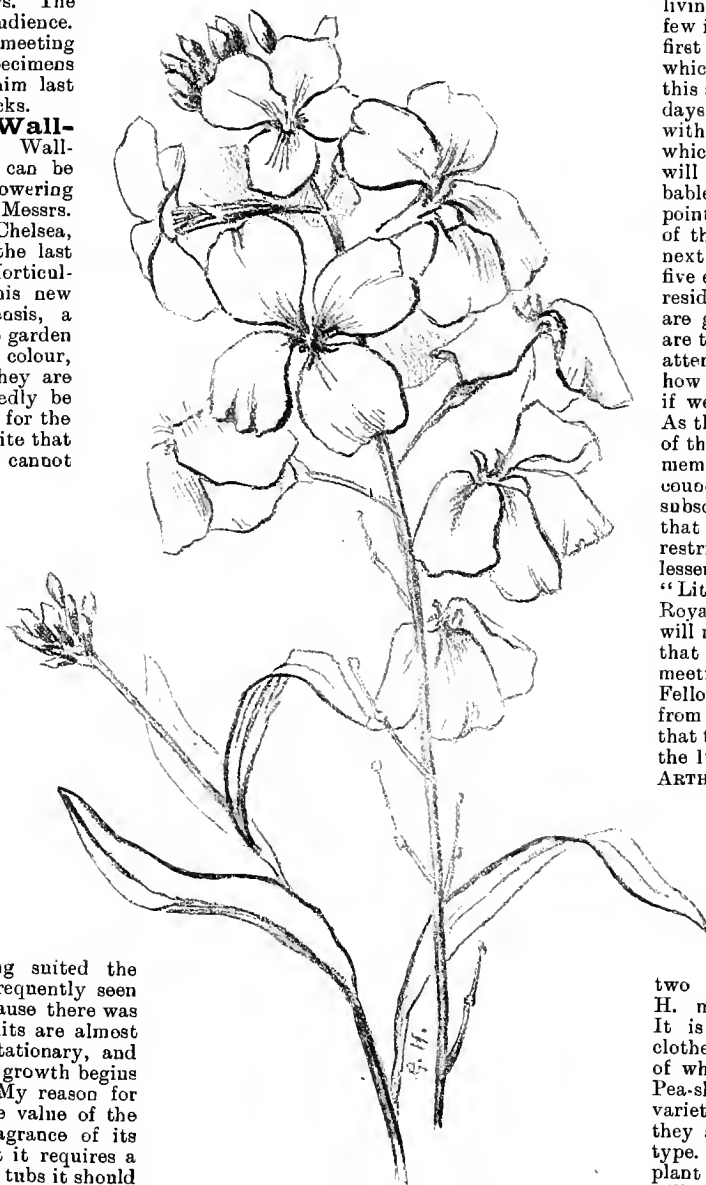
**The Gardeners' Royal Benevolent Institution.**

—The excellent leader in THE GARDEN, page 67, will, I trust, be read far and wide, and it should cause many who only know the institution by name to take a greater interest in its welfare. Your statement that only 1,000 gardeners are members shows the need of such articles and of forming auxiliaries in different centres. I am glad you appeal to the gardener, and if they note that 100 votes are given for each sub-

scription, it will be seen that they are well repaid when adversity befalls them. They will then find they have not invested their savings badly, and if they have only helped others by so doing they will have done good work. At times the committee is blamed because subscribers do not get enough consideration, but this is not so now. At the same time, we must not forget the term "benevolent," and that the widow of a subscriber receives full justice.—G. WYTHES, *Syon Gardens*.

**Dunfermline Carnegie Trust.**

—Many will watch with great interest the developments of the operations of the Dunfermline Trust, established through the munificence of Dr. Andrew



A WINTER-FLOWERING WALLFLOWER (*CHEIRANTHUS KEWENSIS*). (Natural size.)

Carnegie, and to many the horticultural side will appeal strongly. At a recent meeting of the trustees some progress was made in the direction of furthering this part of the work. Professor Geddes is engaged in the preparation of a report on Pittencrieff Glen and Park, and a first instalment of his report was considered and remitted to a committee for further consideration. A committee of five was also appointed to consider the giving of prizes for gardens, flower-plots, and window-boxes, and the advisability of holding special horticultural exhibitions in Dunfermline. A donation of £10 10s. was voted to the funds of the Dunfermline Chrysanthemum Society.

**The Royal Horticultural Society and its subscription.**

—Will you allow me to thank a number of correspondents who have written to me expressing their agreement with my views of the extraordinary reversal in the policy of the council in the last twelve months? So far only one of my correspondents disagrees with my views, and he asks why should new members who have paid nothing towards a hall which will cost over £40,000, and a garden which will cost £10,000, be allowed to join on the same terms as those who have, and receive each year £12 4s. 6d. in exchange for a paltry guinea? I am afraid that the table in the society's report, which was reproduced on page 68 of THE GARDEN, is not convincing to any Fellows living a good way out of London. I will analyse a few items just to explain what I mean. In the first place, take the Temple show, the value of which expressed in tickets is £1 13s. To secure this sum each Fellow must attend the show three days, and dispose of all his spare tickets; so also with the Holland House show, the tickets for which are put down at the value of £1 10s. We will suppose (which is, of course, wildly improbable) that three-quarters of the Fellows make a point of attending these shows as well as disposing of their tickets, and let the figures stand. The next item we come upon is £7 11s. 6d. for twenty-five exhibitions. Here I think that Fellows who reside a long distance from London (of whom there are great numbers) may well object. How many are there who can afford the time or the money to attend even half of the fortnightly meetings, and how much would it cost in fares and other expenses if we were fortunate enough to be able to attend? As the Editor has rightly said, the ordinary events of the society are of little interest to many country members. In a word, the future policy of the council is to force the country members to pay a subscription out of all proportion to the benefits that most of them can possibly receive, so as to restrict the membership of the society, and thus lessen its hold upon horticulturists. Surely this "Little England" policy is not worthy of the Royal (*i.e.* National) Horticultural Society. It will not be in any spirit of hostility to the council that I shall move an amendment at the general meeting that no alteration be made in the £1 1s. Fellowship for Fellows residing 100 miles or more from London, but because at the present time I feel that the right policy of the society was expressed in the 1902 report, to which I referred last week.—ARTHUR R. GOODWIN. [The Editor is not responsible for the opinions of his correspondents.]

**Hardenbergia monophylla.**

Though there are only two species of *Hardenbergia* in cultivation the list of synonyms is a long one, and besides this they are sometimes included in the genus *Kennedy*. Both of them are climbing plants, the less vigorous of the two being that at the head of this note—*H. monophylla*—which is just now in flower. It is of slender growth, and has wiry stems clothed with simple ovate leaves, from the axils of which are produced drooping racemes of small Pea-shaped rosy purple flowers. There is a variety (*alba*) in which the flowers are white, and they afford a decided change from those of the type. This is well suited for a pillar or rafter plant in a small or medium sized greenhouse, as it will not soon outgrow its allotted space, and does not obstruct much light at any season. The second species—*H. comptoniana*—is more vigorous, while the leaves are trifoliate, and deep shining green. The flowers, crowded together in racemes about 4 inches long, are bright purple, and a succession will be kept up for some time. As an early spring-flowered climber for a larger structure than the last, it is well suited. The culture of these *Hardenbergias* is not at all exacting, given a soil with a good proportion of peat and sand, for like many other Australian Leguminosae, a certain amount of peat is necessary. With regard to the synonyms mentioned at the beginning of this note, *Hungeli*, *digitata*, *Lindleyi*, and *makayana* are now classed under *comptoniana*; and *cordata* and *ovata* under the head of *monophylla*.—H. P.

**John Knox's Yew.**—All Scotsmen will be glad to know that the historic Yew at Finlayston, Renfrewshire, which is associated with the name of John Knox, the reformer, has not suffered from its removal some time ago. As many are aware, Knox conducted a communion service under it in the year 1563, when it was probably an old tree. It has attained a great size, and it was found absolutely necessary to remove it on account of some changes which were to be made in the grounds. The task was rather a difficult one, but Mr. A. Bald, the experienced gardener of Mr. Kidston, took every precaution, and the services of Mr. Barron were also enlisted. As the tree and the soil attached weighed 30 tons, much care was necessary; but Mr. Bald had everything properly arranged, and the venerable Yew was moved to its new position without any mishap. It has not suffered in the least, and this is a gratification to many besides Mr. Kidston.—S.

**Coronilla glauca.**—Probably owing to the fact that *Cytisus racemosus* is grown in thousands by our market nurserymen we do not meet with this *Coronilla* so frequently as formerly, yet the neglect into which it has now fallen is difficult to understand, for it is a delightful flowering shrub for the greenhouse at this season, while not only are the clear yellow flowers so different in arrangement and tint from those of the *Cytisus*, but the pretty glaucous leaves are quite unlike those of any of its associates. It is a native of the South of Europe, and is hardy in some of the most particularly favoured districts of the country, but it is as a greenhouse plant that it claims recognition. It is not difficult to strike from cuttings, and will grow readily in a mixture of loam, peat or leaf-mould, and sand. Careful watering is necessary, particularly in the case of large plants. There is a variety with variegated leaves, but it is less handsome than the type.—H.P.

**Eupatorium vernale.**—This *Eupatorium*, which Messrs. Veitch showed in such good condition among their group of flowering plants at the Drill Hall on the 26th ult., is, though bearing an uncommon name, apparently not a new species, for it is, I believe, regarded as the true name of the plant, which as *Eupatorium grandiflorum* has been in cultivation for some considerable time, though it is very little known. It is certainly one of the best of the genus, and not only is it useful as a pot plant for decorations, but large-sized bushes are valuable where cut flowers are required. The flowers keep well in water. The *Eupatoriums* are all of easy propagation and culture, for they strike readily in spring from cuttings of the young growing shoots, which, after being potted off, must have the tops pinched out and be shifted into larger pots when required. The latter half of the summer, when in their flowering pots, they may be placed out of doors and treated in much the same way as *Salvias*. Being liberal feeders manure water should, as the pots get full of roots, be supplied to all the *Eupatoriums*. For many years *E. riparium* was largely grown, but it cannot be compared with the species under notice, nor with *E. adenophorum*, grown at Kew as *E. trapezoideum*, nor with *E. probum*.—T.

**Colchicum montanum.**—As *Colchicum* sp. from the Taurus, a very pretty and distinct form of this species has been received from Mr. W. Siehe, of Mersina, and is now flowering in the Alpine house at Kew. With unusually short segments, which are very broad in proportion, the plant is quite different from the usual forms in cultivation, which have longer strap-shaped parts of the perianth. The pale purple flowers are globular in form, usually two to each corm, with a tube which is longer than the three broad glaucous green leaves. A native of the Mediterranean region, this species enjoys a wide distribution, and growing thus under various conditions, it is natural that it should vary a good deal. Several plants that have received specific names cannot be definitely separated from this species, being merely distinct geographical forms. Under this might be included the *C. libanoticum* from Palestine, which is usually a larger plant than the type, and coming into flower somewhat earlier. This is probably an

extreme form, and to many would justify its specific rank. Other *Colchicums* in flower are *C. Argei*, from the same source, and a somewhat similar plant, but deeper in colour. *C. hydrophilum*, also from Asia Minor, with dark purple flowers with narrow segments about an inch long; a very free flowering plant. *C. crociflorum*, the rare little *Crocus*-like species from Turkestan, shows a variety of marking in the different flowers, which are produced several to each corm, with three broad green leaves. Some of the flowers have a broad violet-purple line down the centre of the outside of the segment, others have narrow reddish purple lines, and others, again, have several faint lilac lines spread over the outer surface, while the inside of the flower is white. Another plant which is often met with under this name is simply *C. autumnale*.—W. IRVING.

**Iris reticulata Melusine.**—Last August I obtained from Herr Max Leichtlin three new forms of *Iris reticulata* under the names of *luteo-alba*, *Ariadne*, and *Melusine*. They were potted in sandy loam on August 3, and placed in a cool greenhouse. The variety that heads this note came into flower on the 30th ult., and of its exquisite beauty I can scarcely say too much. Herr Max Leichtlin first mentioned it in his "Notes from Baden-Baden" (see THE GARDEN, vol. lxi., page 192), where he describes its colour as "a bright sky blue." But sky blue is usually supposed to be almost a Forget-me-not blue, so that with this description I am not able to agree. The prevailing tone of colour in this *Iris* would be best described as a light mauve-blue, as in the type there is a rich orange stain in the centre of each fall. Around this stain are numerous white veins, while below it the mauve-blue colour deepens to violet. The plant is as deliciously fragrant as the type, and evidently very free, seeing that my one small bulb has produced two flowers. I am eagerly awaiting the flowering of the two other varieties named above, and, as I understand that Herr Max Leichtlin has other beautiful seedling forms to distribute, no doubt we shall soon have a much greater range of colour than we now possess. Indeed, a pure white variety (*Iris reticulata alba*) and an almost black one, which has been named *Negro*, are already promised us. It seems needless to sing the praises of the *Netted Iris*, and yet it is unknown in hundreds of English gardens. For the alpine house or cool greenhouse, as well as outdoors, it is indispensable, and as I write a few of its flowers are filling my room with their delectable scent.—ARTHUR R. GOODWIN, *Worcestershire*.

**A useful spring vegetable (Mercury).**—In the eastern counties Mercury is a favourite spring vegetable, and as it can be grown so readily it may not be out of place to note its culture. Botanically, it is known as *Chenopodium Bonus Henricus*, but its more popular name is Mercury. It is readily raised from seeds sown early in the spring in good land and in rows 15 inches to 18 inches apart, and the plants thinned to half that distance in the row. In rich land more space would give stronger material. At the start it is important to thin the seedlings early, as they soon get weak. The first season the return will not be great, but afterwards there will be a full supply. Plants lifted late in March or early April, and when the best portions are selected and these planted in deeply-dug and well-enriched soil, will provide good material for several seasons, especially if a rich top-dressing is given in the early autumn. This when applied liberally causes the shoots to thicken, and these, when cut under the soil like *Asparagus*, are delicious. Cutting generally begins in April and continues till the end of June. By many the plant is termed *Lincolnshire Asparagus* or *Good King Henry*. To grow it well it must have ample food, and it well repays liquid manure when in growth. The leaves may be used in the same way as *Spinach* when nearly full-grown, but I think the young shoots are much better when cut as advised, namely, in a young state.—G. W. S.

**The famous Kinnell Vine.**—The Vine at Auchmore, Killin, Perthshire, the property of the Marquis of Breadalbane, is reputed to be the largest in the United Kingdom, though there are several much older. It is of the *Black Hamburg* variety, and was planted in 1832. It was grown

some years previously in a pot, but planted out at this date in a small greenhouse. It flourished rapidly and soon became too large, and the house was extended at different periods till it now fills a house 171 feet long by 25 feet wide, and it would be good for the Vine again to enlarge the house, but, unfortunately, this cannot be done without pulling down a block of buildings. It has a clean stem of 6 feet, measuring 2 feet in circumference; then it branches off each way, and rods are trained up the roof, about 3 feet apart, gridiron-shaped, and it is a perfectly shaped plant. It produces about 5,000 bunches annually, and about 600 are left on to ripen. As far back as 1879 800 bunches were allowed to mature, but this was thought to be too heavy a strain on the plant, and for the last twenty years it has ripened on an average 600 bunches. Only 500 were taken last season, but the berries were large and well finished. The bunches averaged about 1½ lb. in weight, but several were cut 3½ lb. in weight. The total weight of crop in 1903 was about 700 lb. It will no doubt surprise many to hear of this monster Vine so far north, because its existence is not generally known.—W. W., *N.B.*

**Ripe Figs for ten months.**—Figs have long been esteemed as one of the most delicious summer and autumn dessert fruits, and of late years they have come into more general favour. This may to some extent be attributable to their more extended cultivation in pots. The greatest advantage derived from this method of cultivation is the much longer season in which ripe Figs may be had. I was recently much interested in the fine lot of Figs as grown by Mr. Sanders at Halton. During the last three months of the past year he was able to gather really nice fruits two and three times a week of such varieties as *Brown Turkey*, *Negro Largo*, *Bourjassotte Grise*, and *Black Ischia*. With three batches of plants in pots to be started at different periods for succession, ripe Figs may easily be had for about ten months of the year.—J. J.

**Grevillea rosmarinifolia.**—The bright coloured *Grevillea* mentioned in THE GARDEN, page 68, is one of the hardiest of this Australian genus, the only other species equal to it being that usually known as *G. sulphurea*, but of which *G. juniperina* is considered to be the correct name. In the south-west of England and in many parts of Ireland these two may be regarded as hardy shrubs, but in the greater part of the country they are greenhouse plants. This amount of protection is well repaid by many other members of the genus, some of which, in addition to their flowers, have very ornamental leafage. Among the best, in addition to those named, may be noted *G. alpina*, *G. Banksi*, *G. Forsteri*, *G. punicea*, *G. thelemanniana* or *Preissei*, and *G. robusta*. This last, which is well known as a foliage plant, I have never seen in flower, but in all the others the flowers are remarkable for their peculiar curved character. The uncommon *G. Forsteri* was very finely in flower in the temperate house at Kew last summer. This is a strong grower with handsome pinnate leaves, which are silvery in a young state. The flowers, which are borne in terminal cone-shaped racemes, are bright red, almost scarlet. Like most members of the genus the long style is very noticeable, being as brightly tinted as the rest of the flower.—T.

**Proposed big gardening exhibition at Regent's Park.**—It is proposed that a grand horticultural and gardening exhibition shall take place in the month of June this year under the auspices of the Royal Botanic Society. It is intended that the exhibition shall be held in the new exhibition grounds of the society, situated in the centre of their beautiful gardens in Regent's Park, the exhibition to be open for one week, or possibly longer. The proposed scheme embraces horticulture, forestry, botany, educational methods, nature study, and a special section for Colonial produce. In addition to the exhibition, lectures, conferences, and conversations are in course of arrangement. The president of the society is Major His Serene Highness the Duke of Teck. All communications respecting the gardens and exhibitions, &c., should be made to Mr. J. Bryant Sowerby, the secretary.

**Boston (Lines.) horticultural show** will be held on Wednesday and Thursday, July 20 and 21.—J. W. KILLINGWORTH AND SON, Secretaries.

**National Chrysanthemum Society.** The revised dates for the exhibitions at the Crystal Palace in 1904 are: Wednesday and Thursday, October 5 and 6; Wednesday, Thursday, and Friday, November 2, 3, and 4; Wednesday and Thursday, December 7 and 8.—RICHARD DEAN, Secretary.

**Eupatorium vernale.**—This little-known Mexican species is a most useful greenhouse plant, producing stiff, terminal corymbs of white flowers at the present time. It is easily propagated from cuttings rooted in spring, is somewhat shrubby in habit, and old plants may be grown for several years if cut back after flowering. Although quite distinct, it is sometimes met with under the name of *E. grandiflorum*, a North American species with reddish flowers, which is *Brickellia grandiflora* of "Index Kewensis."—A. O.

**A winter effect.**—One of the prettiest combinations of winter colour I have seen for some time consists of two patches of the Snowberry (*Symphoricarpos racemosus*) and the Scarlet-stemmed Dogwood (*Cornus alba*) planted close together and intermingling in places. They were planted in the ordinary course of work, without any idea of making them effective, but the result has shown what happy effects can sometimes be obtained quite accidentally. The scarlet stems of the Dogwood are strikingly shown up by the profusion of the white fruits of the Snowberry, and *vice versa*. The Snowberry, being the taller and quicker grower, should be planted in the background with the Dogwood in front, and from the middle of October until the New Year they will be found to give a cheerful bit of colour. The Snowberry begins to lose its fruits towards the end of December, but the scarlet stems of the Dogwood are still left to give a warm patch of colour. As both plants can be obtained very cheaply, anyone who has a spare corner in the shrubbery can fill it effectively at very little expense. In buying the Dogwood care should be taken to get *Cornus alba*, as it is often confounded with *C. sanguinea*, which is of no ornamental value, and only suited for cover-planting.—J. C.

**Functions of Museums.**—In the January issue of the *Popular Science Monthly*, Dr. F. A. Bather, of the British Museum, returns once more to his favourite subject—the functions of museums. After mentioning the chief functions of these institutions, the author gives some much-needed advice to the curators of local museums as to the necessity of firmness in refusing unsuitable specimens—if they do not wish the establishments under their charge to degenerate into mere curiosity shops. Small local museums are also warned that investigation is not their province—they are for education and the general public needs alone. Further, in larger establishments the investigation, the instruction, and the exhibition series must be kept apart. In the author's opinion, where museums have, as a rule, gone wrong is in exhibiting too much to the public.

**Clematis paniculata.**—This is so important a garden plant that it is a matter for wonder that it is not more generally known. Its merits may be best described by saying that it does even better for October what *C. Flammula* does for September. It much resembles *C. Flammula*, but is in every way a stouter and more vigorous grower. It may not be a plant for the cold Midlands, but anywhere south of London it is admirable. When once established the only trouble is its extreme vigour of growth. Unless it is somewhere where it may spread all round, as over an arbour or a mass of stout branching spray, it must be severely thinned in early spring or its multitude of branches become almost unmanageable. It is a native of Japan.—J.

**Character and Horticulture.**—In an address before the summer meeting of the Michigan State Horticultural Society, the Hon. Charles W. Garfield, of Grand Rapids, made an eloquent plea for the subordination of commercialism in horti-

culture. The strong tendency to measure success on all lines of work by the money standard cannot but be detrimental to the development of higher character in man; and students of sociology in all the centres of learning are also earnestly pleading against the undoubted results of this tendency in its deteriorating effects on the American people. In the evolution of character there is, perhaps, no broader field of influence than is offered by horticulture, and all the great names associated with its development have been men of marked humanity in its high and broad meaning. Notwithstanding these facts, however, it is to be noted that commercialism permeates the discussions in horticultural meetings to a serious extent, but it is a matter of congratulation to realise that the pursuit of horticulture as a calling compels the subordination of human intelligence to that higher intelligence which dominates all things, in a greater degree, perhaps, than any other line of activity, and so tends to develop the better manhood.

**The Chicago Parks.**—Extensive improvements are being planned for the Chicago parks for the coming year. Three sites for new parks have been purchased by the South Park Board at a cost of 283,000 dols. The largest of these includes 60 acres lying between 52nd and 55th Streets, and Loomis Street and Centre Avenue, and cost 183,000 dols. The other two are smaller, and were acquired at an expenditure of 50,000 dols. each. The West Park Board plans the construction of a new conservatory at Garfield Park to be the largest in the city. It will cost about 150,000 dols. The total expenditures for the West Side parks for the year were 682,000 dols., the total bonded indebtedness 1,260,000 dols.—*Park and Cemetery (America)*.

**Extension of fruit cultivation.**—Under the title of "Back to the Land: Is Fruit Farming a Solution?" an interesting lecture was delivered to a large audience in the Masonic Hall, Glasgow, on the 25th ult., by Mr. J. M. Hodge, a member of the special committee on fruit culture. The lecture favoured the movement for small holdings, with especial reference to fruit growing, and some interesting details were given with regard to the extent of the acreage under fruit, especially in the Blairgowrie district. At the close of the meeting a committee was formed to consider the propriety of forming a Scottish Small Holdings Association.

**Lectures at Dover.**—At Dover a society has been formed for the purpose of arranging a series of lectures on various subjects. On the 26th ult. the subject was "Seaside Gardening," and the lecturer Mr. T. W. Sanders. There was a good attendance, chiefly ladies, who evinced much interest in the subject, following the lecturer closely through the various points touched upon. And after the lecture was concluded many of the ladies asked various questions. It would seem that the ladies of Dover take special interest in their gardens, and one of their greatest troubles during the past season has been the plague of slugs and other vermin.

**A New Primrose.**—This beautiful yellow Primrose, Buttercup, of almost the exact colour of a Buttercup, may not be a new plant, but it certainly is newly found out, and now that it has been discovered is not likely ever to return to oblivion, as it has proved itself to be a variety of sterling merit. A plant in a 6-inch pot carries hundreds of blossoms, ranging in size from three-quarters of an inch to an inch in diameter. These are borne on spikes, which stand well alone. The foliage is something like *P. obconica*, but with the whole of the bloom distributed better up and down the stem. This latter might be a trifle stronger, as when in full flower the weight of the blossoms is apt to carry it over a little. Like many other sterling novelties, this comes to the trade through the medium of W. K. Harris, of Philadelphia, who discovered its good qualities. He disposed of a stock of 5,000 plants in two months. He says that it is the best thing sent out since *Begonia Gloire de Lorraine*. It grows readily from seed and is very easy to manage, requiring no special culture.—K., in the *American Florist*.

## THE ROSE GARDEN.

### ROSES UNDER GLASS.

**G**RAFTING will now be in full swing, and most interesting and simple work it is. If no Briars are to be had established in pots young plants with stems about as thick as a lead pencil, potted two or three weeks before grafting and placed in a greenhouse, will answer admirably. The scions should be well selected, thoroughly ripe, and must fit exactly, on one side at least. A little practice will enable the operator to make the bark upon both sides fit perfectly. The form of grafting usually adopted is known as whip grafting, but with Roses it is not necessary to make a tongue or to wax over the graft. A close-fitting frame or frames with bottom-heat must be made ready for the grafts. These frames should be placed on the side stage in a sunny position. Put about 2 inches of sand or coal ashes in the bottom of the frame and thoroughly water before placing in the grafts. If this be done and the Briars are watered before grafting they will require no water for the first five or six days after grafting. Many a graft has been spoilt owing to water finding its way between stock and scion. The temperature of the frame must be kept at about 80° to 83° night and day.

Shade with scrim or thin canvas from bright sunshine. No air must be given to the frames for the first five or six days, but after this raise the frame about 1 inch twice a day for half an hour, increasing this each day until about the fourteenth day, when the lights may be left up entirely. In about three weeks the plants are placed out in the stove house, taking care that they do not touch. When small white roots are seen at the bottom of the pots the plants must be potted on, and 3-inch pots are the better size, although many pot on direct from 3-inch to 4½-inch pots. Keep plants tied to small sticks, and carefully syringe under the foliage to disperse the red spider.

### FORCED ROSES

are now in various stages, some nearly ready to cut. Where buds are seen liquid manure may be advantageously applied once or twice a week, changing the diet now and then. Sheep manure and wood ashes make a fine manure, which is, perhaps, as good as the expensive manures advertised. Cow manure and soot will make a very safe and reliable liquid. Whatever is used it is well to remember that weak doses and often are better than strong doses at long intervals.

### CLIMBING ROSES,

such as *Maréchal Niel*, where growing in borders, must receive stimulants rather liberally. Presuming such borders received a dressing of bone-meal when plants were pruned, the plants may receive liquid manure about once a week as soon as the buds are formed. Do not encourage too many buds. Many fine plants of *Maréchal Niel* have been injured beyond repair in this way.

### ROSES FOR EXHIBITION

will now need pruning, and after this is done the branches should be tied out to lay the foundation of a shapely plant. Put a string below the rim of the pot, tie the raffia to those shoots that need tying out, and secure the raffia to the string. The finest Roses will be produced from the medium-sized, well-matured wood made last season, so that if quality is desired we must not hesitate to cut back hard. Ramblers and other Roses grown in pillar form make delightful objects for the conservatory, and should be found in every establishment. Many of the strong-growing Teas, such as *Marie Van Houtte*, *Anna Olivier*, *Medea*, &c., would also make beautiful pillars of medium height, and look far more graceful than the formal tied-out plants.

There is often a desire to obtain such Roses as *Bridesmaid* and *Catherine Mermet* as climbers for the roof. They will cover a considerable space in course of time, but if desired to do so more quickly such varieties could be budded into the young wood of an established climber. By suppressing

all the shoots of the climber another season the inserted buds would start, and very soon the desired object would be gained. There is frequently a demand for Roses during May, when the indoor plants are becoming exhausted. This demand could be met by placing a number of Hybrid Perpetuals and Hybrid Teas that were potted up last autumn into cold pits at once, prune early in February, and allow the plants to come on as naturally as possible. The plants should be plunged in ashes. Keep lights off night and day, unless frost threatens. When new growths start great care is necessary so that frost does not injure the embryo buds. The growth may be accelerated by closing up about three o'clock in the afternoon, previously lightly syringing them if the sun is shining.

#### FRANCOIS CROUSSE.

MANY growers do not know what a brilliant crimson Rose this is or it would be in great request. It is described as a climber, and as such is most useful, but it will produce its handsome buds when grown as a standard or isolated as a bush or pillar. We have none too many bright-coloured climbers or strong-growing Teas and Hybrid Teas that we can afford to have one overlooked, and I should strongly advise anyone to plant this Rose on a wall or fence or bud it as a standard. Some of its handsome buds were equal to those of General Jacqueminot in shape as seen this season, and altogether an excellent opinion was formed of its merits as a novelty, apart from the decided gain it is to our brilliant coloured climbers.

PHILOMEL.

### THE WILD PINKS.

(Continued from page 69.)

**D. MONSPESSULANUS** (syn. *D. alpestris*).—One of the prettiest and most effective of the rock Pinks; it is very free-flowering and easy to grow, succeeding in any open situation, forming tufts of grassy leaves, and producing numerous branching, few-flowered stems in summer. The flowers are red in colour and unbarbed. Growing from 6 inches to 12 inches high, this plant is found in high thickets and mountain pastures of the alps of South and Eastern Europe. Introduced in 1764.

**D. PLUMARIUS** (wild Pink).—This species differs from the wild Carnation in having a much smaller flower, and in having the petals deeply cut or fringed. It is also much hardier, and is seldom grown in pots. Pinks are, indeed, generally planted in the open border without any other care than that which is usually bestowed on hardy perennials. One of the most luxuriant in growth, quickly covering large spaces; a free seed-bearer, and crossing readily. Many of those Pinks bearing all kinds of names owe their origin to this species. With glaucous foliage and branching two to five-flowered stems; the bearded flowers vary in colour from white to purple, are deeply fringed and sweet-scented. It is found in Middle and Eastern Europe. Numerous garden varieties have been derived from this species, many of great beauty, and very variable in size and colour.

**D. REQUIENII**.—A dwarf, tufted species from the Pyrenees, with slender stems 6 inches to 9 inches high and solitary small rose-coloured flowers.

**D. SQUARROSUS**.—With flowers similar to those of *D. plumarius*, but with longer calyx segments and short, stiff, recurved leaves, the whole plant about 6 inches high. Introduced from South Russia in 1817.

**D. STERNBERGI**.—Similar to *D. monspessulanus* in habit and appearance, but smaller, with rose-coloured flowers having deeply-cut petals. From the mountains of South Tyrol and Carinthia.

**D. SUPERBUS**.—This very elegant plant is remarkable for its pleasing fragrance, its fringe-like petals, and the long, slender tube of the calyx. The colour of the flowers ranges from white to purple; it commences to bloom in August, and produces a succession for a long period. A short-lived plant; it ripens seeds freely. A very old garden plant; it has been in cultivation over three centuries, and has a very wide distribution, extending over Europe and Northern Asia to China. Very variable in size and habit; the larger forms come from the latter country, a plant flowering at Kew raised from seed collected in Central China reaching a height of 3 feet, with numerous flowers in branching panicles.

**D. WALDSTEINII**.—A native of the Eastern Alps of Europe. This may be described as a small monspessulanus.

W. IRVING.

### THE AURICULA— FEBRUARY.

As the season advances the plants begin to wake up from their winter's rest. During the month many varieties will be found in a state of active growth. Watering must therefore be attended to and applied according to the requirements of the plant. It may be more freely given than at any time since October. Should any suspicion exist as to the drainage of the plant, it can be quietly knocked out of the pot and examined, set right if necessary, and carefully replaced. The surface soil around the old plants will need to be stirred with a pointed stick, and this is the time to remove all available offsets and place round the edges of 3-inch pots, keeping them shut down close in a cold frame for a fortnight or so. After stirring the old soil some fresh, sweet potting material must be added where necessary, and well cover the neck or collar of the plant. This will encourage the formation of important rootlets which may break from it, and will also be of some assistance in forming a good truss of bloom. The plan adopted by the old growers of removing an inch or so of the old soil and replacing it with very rich compost is not thought necessary nowadays.

Presuming part of the crop of last year's seed has been sown in the autumn, the remainder may now be put in, and any young seedlings showing their first rough leaves must be shifted into fresh soil to encourage active growth.

The plants may now have all the sun that can shine upon them. Air must be freely given on all safe occasions, remembering that a cold north-east wind may injure the young foliage and cause a severe check.

In case of frost frames should be well matted over, and in the Auricula house slight heat given to exclude it, for although frost might not injure the plant, it may, even at this early stage of growth, cause damage to the truss of bloom, which is now rapidly growing.

Bishop's Stortford.

W. SMITH.

### THE CACTUS DAHLIA FOR EXHIBITION.

WHERE the best possible results are looked for in the culture of the now popular Cactus Dahlias, as well as in the other sections, no time should be lost in deciding where they are to be planted and in beginning the preparation of the soil, almost the most important item. Where the depth of good soil permits, the ground should be trenched and left rough, to throw as much surface as possible open to the frost. If trenching is out

of the question, dig it as deeply as it permits. Freshly grubbed or broken land will hardly need any manure at all, the Dahlia, like the Potato, revelling in fresh land; but where the soil is poor, a good heavy layer of horse manure, not too rotten, should be spread over and dug in early in February. This being done, the ground need not receive much more attention for the present, unless it be dug over again, and a fair coat of manure or, if heavy, ashes or road sweepings dug in. Plants for planting out may be obtained either by striking cuttings or parting the old roots or tubers. For the production of the best exhibition blooms the cuttings are almost a necessity, but if simply a large bush is desired, the old roots, to which several main stems are left, are best. Naturally, the striking of the cuttings is the more tedious of the two, but the cuttings are by no means difficult to root. In the first place all the old roots should be looked over, and broken or decaying tubers cut off. If any are rotting at all badly, cut out the affected part severely, dust over the moist raw portions with dry lime, and leave the root in a dry, warm place for a night or so. If the tubers are sound and healthy, and the old stems dry and dead, as they should be if properly treated during the winter, they are ready for starting. The grower may please himself as to the manner in which the roots shall be started for cutting production; they may be bedded in, in pits or borders in the greenhouse, or placed in shallow boxes near the hot-water pipes, or, if only a very few in number, potted. Whatever the method adopted, the temperature should be not less than 55° at night.

I may as well, perhaps, say a few words on bedding in the tubers. First, the soil may be composed of any fairly good stuff which may be at hand; siftings from the heap of old potting material are very good, with which a little well-decayed manure and a good sprinkling of sifted ashes may be added; such manure as that from old Mushroom beds is best. The tubers should have the old stem cut off to within 2 inches of the collar, i.e., the live part round the base of the stem where the eyes are clustered, and any old dry soil cleaned off; bed them in, just low enough to leave the collar clear of the surface of the soil, so that the base of the cuttings may be seen later on when taking them.

If the soil be moist when used, very little water will be needed for at least ten days, and if the tubers are dry and shrivelled care will be needed to prevent their rotting instead of starting root. In cases of this sort be very sparing of water as long as they show no sign of life. If kept in a temperature from 55° to 65° at night, cuttings will be long enough to take in about four weeks, and they should be taken near but not close down to the collar, unless only two or three are wanted of a sort; the nearer the base they are taken the more easily they strike, but fewer are produced. One cutting may be inserted in a long 2½-inch pot, an important point being the compost, two parts sweet loam, one part leaf-mould, and two parts best silver sand being a suitable mixture. Fill the pots before taking the cuttings, so that they may be inserted at once when cut off the tuber and before they flag. Put a good covering of sand on the surface of the soil in the pots. As soon as potted water them thoroughly, and stand them in a partially shaded part of the greenhouse where the air is buoyant, but the base of the pot standing on some material not too dry. The chief thing to avoid is a damp, stagnant, or a hot, dry atmosphere. If the cuttings keep fresh without being saturated daily they are in a suitable place, providing the temperature is not less than 55°, or 60° if possible. When the surface sand is dry sprinkle with a fine rose on the water-can, aiming at keeping the soil moderately moist. In three weeks the cuttings should be rooted, when they may be stood in a lighter and more sunny part of the house.

In striking Dahlia cuttings avoid hot-beds of manure, propagating pits, and hand-lights. On the whole these useful helps are not conducive to success in Dahlia work, except after a careful study of what one may or may not do. Simply root them in the open house, and if they droop



dew over gently on fine mornings. When the roots reach the sides of the pot, transfer them to large 3-inch pots in a compost of three parts loam, two parts leaf-mould and old manure, and one of sand, and soon after place them out in a frame to grow on sturdily for planting out. If the best plants are desired, another shift into a 4½-inch pot may be given at the end of April or very early May, which will keep the plants in a growing state till June. The old tubers may be left undisturbed for a time yet if they are simply to be potted or planted out as old roots, and I will leave them for the present.

EXHIBITOR.

(To be continued.)

## PRIMULAS FOR WATER-SIDE PLANTING.

The finest yellow Himalayan Primula for this purpose is the Sikkim Cowslip—*Primula sikkimensis*. The wet summer of 1903 suited well this beautiful plant. Many of the flowering spikes

will probably appear in September, but if the seed has been dried it will not germinate till next spring (1905). The seed may be sown in pans, boxes, or frames, for in the open the majority of the small plants would most likely disappear altogether during the winter. Once up the seedlings rapidly grow, and should be planted in their flowering sites in June or July. The flowers of *P. sikkimensis* possess a peculiar odour which is quite unlike the fragrance of most yellow-flowered Primulas. Perhaps it may be best likened to the odour of crushed Watercress—at any rate there is a good deal of pungency about it. As seed is so plentifully produced, it is best to raise plants every year rather than to frequently divide the clump that becomes so strong when left alone.

*PRIMULA ROSEA* does not care about a soil so heavy and pasty as does the preceding. It grows very freely slightly above water level, planted in the mossy ground that is often found near running streams, and seldom occurs in the vicinity of stagnant, dirty water. *P. rosea grandiflora* has flowers of finer colouring than the type. Neither will endure the drought that would little affect the European Mountain Primroses. Colonies may be

get cut down, unless a mild season ensures their safety. Yet in spring the plants, full of flower, appear to be no worse for their misfortunes.

*PRIMULA JAPONICA* is also an excellent wet soil plant, reaching in such 2 feet or so in height. The deep crimson flowers are arranged in whorls round the stem. The variety *lilacina* is also good, while the white form is far too little seen. *Primula japonica* has not the assured hardiness of the Indian Primroses. When naturalising these Primulas it is always best first to raise the plants in a frame, and afterwards transplant during the early summer of the first year. Even one ounce of *Primula rosea* seed does not go far when sown broadcast. If bought seed it may take a year to appear, so that it is best to have it under control.

*P. IMPERIALIS* is another large-growing bog plant, but until improved it is not equal to *P. sikkimensis* for the open air. There are several other species that may also be thus grown, although they, for the most part, need more care than the preceding. A bog is often unfitted for choicer plants, for some are mere holes filled with sour soil—sour because stagnant water abounds, and there are insufficient plants to take it up. The Botanic Garden at Cambridge contains a fine example of the treatment of water and water-loving plants, and included among the latter are many strong pieces of the best Primulas. D. S. FISH.

Royal Botanic Garden, Edinburgh.



THE SIKKIM COWSLIP (*PRIMULA SIKKIMENSIS*) BY WATERSIDE.

have borne hundreds of flowers, forming tassels 4 inches across at the apices of the 30-inch stems. Some of the stems show traces of a whorled arrangement of the flowers, which is so characteristic of *P. japonica*, *P. imperialis*, and the greenhouse *P. verticillata* and others. Probably this form might become fixed and improved by careful seed saving through several generations, but this could hardly result in a form more beautiful than the one we now have. Primulas that flower in spring and ripen their seed early do not greatly suffer from drought. But *P. sikkimensis* will stand nothing of the kind. When starved the flower-stems come down in height to nearly that of the English Cowslip. It flowers during the longest days of summer, and must, to be strong, have abundant watering and good heavy soil. Grown by the waterside the growth is very robust, and the flowering stems numerous and tall. It is best in partial shade, for strong sunlight causes the stems to flag, even when the roots are moist. Although it has been stated that this fine Primula rarely seeds in this country, here and in many other places it produces an abundance. Seed should be gathered before it is quite ripe, and sown at once. The seedlings

grown in moist woods that now only shelter and moisten our native Primroses. The hue of this Himalayan Primrose is an exceptional one in a genus of plants often containing peculiar mixtures of red and purplish shades in its flowers. The flowers of *P. rosea* appear in spring and continue for months.

*P. DENTICULATA* is another Indian Primrose that requires a moist soil. In the variety *cashmiriana* the undersides of the leaves are covered with farina; the var. *alba* has very fine white flowers, while in the var. *rosea* they are purplish rose. It is a mistake to raise imported seed of this plant, as this produces plants that are not equal to the above and other varieties grown in this country. All forms have a rounded head of blossom at the top of their stems. In the best varieties the flowers are close together in the head; in poor forms, they are loose, and of pale washy colours. Although *P. denticulata* was brought into this country more than fifty years ago, it never seems to have settled down to the English climate. As summer closes the plants are found with luxuriant foliage, that the first sharp frost totally destroys. Presently, the young, round flower heads appear in the hearts, and growing up also

## THE FLOWER GARDEN.

### SEED-SOWING NOTES.

NOW that the turn of the days has past, and the hours of light are lengthening, the hopefulness of spring is already stirring within us, and we are reminded that January begins the seed-time of the year. It is none too soon to make up our minds as to the materials we want for the season's campaign. When the seed-packets arrive to our order—be it given never so early—it will be quite time to make some of the first sowings under glass. Our present theme, however, is not so much about seed-sowing to be done in this coming springtide of 1904 as to chronicle the result of some seed-sowing that was done in the autumn of 1903. The note is made chiefly for the benefit of those who prefer to have sturdy seedlings reared without artificial heat, requiring little or no hardening off when planting time is at hand, while the gain of a season must also be taken into account.

The making of a new garden suggested the expediency of taking time by the forelock in preparation for filling empty borders in the coming year. The only regret now is that much more was not then put in hand. Seeds bought, saved, and given of many suitable kinds, however, were sown during August and September, and pricked off as they required it. At this present time, Hollyhocks, Pentstemons, Gaillardias, Ferulas, hardy Cyclamen, a new hybrid *Viola*, Pansies, and a good many more are amongst the number of capital little plants which are slowly coming on in an unheated greenhouse. This house is used for Tomatoes, planted in the raised side borders during the summer, succeeded by Chrysanthemums for cutting in the autumn, and occupied during the winter with pot Roses, bulbs coming on, and odds and ends, such as the seedlings of the hardy perennials just mentioned, all of which are the better for the shelter of glass, but need no artificial heat. No more useful type of glass structure can be added to the ordinary country house garden, especially in the interest of the working amateur of the family, for, as a rule, the gardener is not unwilling to relinquish his share in it as soon as the Tomatoes are over.

The middle to the end of January finds us fairly well to the fore in our preparations for the planting season. Flowers in pots are not altogether omitted, for, besides bulbs, Sweet Peas sown in July will come into bloom with the first blush of spring, and

the early Forget-me-not (*Myosotis disitiflora*) is beginning to open its flowers. In this latter respect, however, with more forethought much more might have been done.

Let it be urged, then, that spring, though it may be the chief, is not the only sowing time. And, should the retort be made that the advice comes a day too late for the fair, yet there is a good and valid reason why it should be given now besides the obvious one that the subject is uppermost in one's mind at the moment, viz., in order that we may reserve a portion of the spring seeds, so that they may be at hand to make the experiment in the autumn.

It is better still, no doubt, to procure freshly ripened seeds, but this is not always practicable. And, lest we forget to take advantage of such reserves when August does come, it is not a bad plan to insert—after the obliging custom of a bank at the approaching end of its cheque-books—a reminding fly-leaf in the garden diary which all good working amateurs keep, to the effect that in July we must look up our seeds for the autumn sowing; in fact, the shortest day and the longest day may both be taken as flying signals to warn us that there is this special garden work ahead, for which the time has come to make due preparation. This cap, of course, will not suit all heads, but haply it may fit one here and there of those who do not find it necessary to leave home during those two most uncomfortable months for travelling.

uncomfortable months for travelling.  
K. L. D.

### CLASSIFICATION OF SWEET PEAS.

IN THE GARDEN of the 23rd ult., you have given some very useful information about Sweet Peas. At the end of your report of the National Sweet Pea Society's audit, you give a classification of Sweet Peas made out by Mr. Hugh Aldersey of Chester. This list, although a very fair one, was criticised very much at the meeting of the National Sweet Pea Society by myself and others, and it was decided that it would be best left out of the annual report. I have made Sweet Peas a very great study for some years, and have written a little work giving the description of every known variety, and with your kind permission I should like to give your readers what I consider a better classification than that by Mr. Aldersey. This you will find enclosed, and with your kind permission also I will explain why I think this list is better for the general grower than that of Mr. Aldersey.

You will see in the class for whites I am of opinion that Dorothy Eckford is best. There is, and always has been, a great diversity of opinion as to which is the best Pea, Sadie or Blanche Burpee. I always give the preference to Blanche, because it has a more upright standard, whereas Sadie slopes too much to please me. Mr. Aldersey gives Emily Henderson as fourth. I really do not think we want more than three of any one shade of colour, but if I were to put a fourth I should give Mont Blanc in preference to Emily Henderson, because it is much earlier in coming into bloom, a full fortnight before almost any other white variety. In the blush I only give one variety, and I look upon Countess of Aberdeen as quite a variety of the past, and it is very rarely seen now on the exhibition table. I see it was only once in the first prize stand, and only five times exhibited out of 990 bunches at the last National show.

The class for cream-coloured varieties I consider somewhat misleading; we have no Pea which we could call a cream-coloured flower, they are all more or less tinged with buff. Mrs. Fitzgerald I look upon as nothing better than Stella Morse, but a flower of not much account, for it was only shown twice, and then only in those collections where a large number of varieties was wanted for variety's sake. Lottie Hutchins I consider is more



BEECH IN OPEN: NATURAL GROWTH (ABOUT 100 YEARS OLD).

of a fancy than a cream. It is very much like a pale Venus, with a slight blush at the back of the standard, and somewhat flaked with pale rose. To speak of yellow Sweet Peas is, I think, most misleading. We have no such thing as a yellow Sweet Pea yet, but we are all hoping for it, and I think the first who can raise it may be sure of getting £1,000 for his labour. It would be very much better to call them pale primrose, for seen at a distance they would be more often called white than yellow. Here Mr. Aldersey gives us four varieties again, and I think Mrs. Ormsby Gore may be well left out, for it would be a difficult matter to distinguish between that and Queen Victoria, unless they were seen side by side. Pink shades we agree upon, although he places them rather differently in order of merit. I always consider Prima Donna is a much better variety than Lovely.

To put Prince of Wales, Lord Rosebery, and Mrs. Dugdale in the rose section I think is very misleading, for the two former are totally distinct in every way from the latter, and I think my classification of it as a bright rose is more suitable. When we talk of Lady Mary Currie, Miss Willmott, and Chancellor as bright rose, I think this is also misleading, for these are more of a salmon or orange-rose than bright rose; to put Lady Mary Currie before Miss Willmott I should say was altogether out of place, and I think that is confirmed by the analysis in competition, when we see Miss Willmott was shown forty-four times, and headed the list, and Lady Mary Currie was only exhibited sixteen times. To include Gorgeous, Countess of Powis, and Meteor in the orange section is, I think, radically wrong, for all these are distinct bicolors rather than selfs, having orange standard and pink wing. Gorgeous has a much more intense standard than the other two. In the crimson, or I should say dark fiery crimson, we agree, and the same with cerise or dark salmon-scarlet. We also agree in the lavender section, but when we speak of dark blue and light blue, we again differ, for I consider Captain of the Blues is more of a light blue than a dark blue, and should be classed as such; and Countess of Cadogan should stand where Captain of the Blues does in Mr. Aldersey's list. In the violet section, I cannot see why the Duke of Clarence should be included, and when I look through the list I see it has only been exhibited four times, and is, therefore, hardly worthy of a place.

To class Mrs. Walter Wright, Dorothy Tennant, and Admiration in one section, is again misleading, in my opinion Admiration being quite a light and Mrs. Walter Wright quite a dark shade. In the dark maroon, or bronze, I see Mr. Aldersey still clings to Othello, whereas all the classifications show that Black Knight should certainly come first. To call Gorgeous, Lord Kenyon, and Calypso magenta, is, I consider, another error. Gorgeous is a bicolor, having a much paler wing than standard, and is what I should look upon as an improved Calypso, or a very dark Prince Edward of York. Lord Kenyon is more of a self, after the style of Lord Rosebery or Prince of Wales, but with more magenta. We do not differ a great deal in our bicolors apart from the comments made above, nor do we in our ideas of flakes. The Duchess of Westminster that Mr. Aldersey has included as a fancy is such a poor and indifferent flower and sports so much that it is very disappointing, and is hardly worthy of classification. I see it was only shown six times, and only once in the first prize stand. I should be glad to hear if any other lovers of Sweet Peas could give us their opinion as to these two classifications. It would be most interesting now the Sweet Pea is so very popular.

### MR. SYDENHAM'S CLASSIFICATION.

*White*.—Dorothy Eckford, Blanche Burpee, Sadie Burpee, and Mont Blanc for earliness.  
*Blush*.—Duchess of Sutherland syn. Modesty.  
*Creamy Buff*.—Countess of Lathom, Venus, and Gracie Greenwood.  
*Pale Primrose*.—Hon. Mrs. Kenyon, Queen Victoria, and Mrs. Eckford.  
*Pink*.—Prima Donna, Lovely, and Hon. F. Bouverie.  
*Bright Rose*.—Mrs. Dugdale, Royal Rose, and Apple Blossom.  
*Salmon Rose*.—Miss Willmott, Lady Mary Currie, and Chancellor.  
*Deep Rosy Crimson*.—Lord Rosebery, Prince of Wales, and Her Majesty.  
*Dark Fiery Crimson*.—King Edward VII., Salopian, and Mars.  
*Cerise or Dark Salmon Scarlet*.—Coccinea.  
*Lavender*.—Lady Grisel Hamilton, Countess of Radnor, and Lady Nina Balfour.  
*Blue (Light)*.—Emily Eckford, Captain of the Blues, and Mrs. Walter Wright (lavender-blue).  
*Blue (Dark)*.—Navy Blue and Countess Cadogan.  
*Violet*.—Duke of Westminster, Captivation, and Dorothy Tennant.  
*Dark Maroon or Bronze*.—Black Knight, Stanley, and Othello.

**BICOLORS.**  
*Rose and White*.—Triumph, Blanche Ferry, and Little Dorrit.  
*Orange and Pink*.—Gorgeous and Countess of Powis.

*Carmine or Crimson and Buff.*—Jeannie Gordon and Countess Jewel.  
*Carmine or Crimson and Pink.*—Prince Edward of York, George Gordon, and Calypso.

PLAKES.  
*Light.*—Mrs. J. Chamberlain, Aurora, and Jessie Cuthbertson.  
*Dark.*—Princess of Wales and Senator.

PICOTEE.  
 Lottie Eckford, Maid of Honour, and Golden Gate, cloudy ground.

ROBERT SYDENHAM.

Tenby Street, Birmingham.

EVERGREEN HOLLIES.

(ILEX.)

**H**OLLIES, as they are commonly known in this country, are so typically evergreen that the term "evergreen" in the title of this paper may to some appear superfluous. There are, however, numerous deciduous Hollies. *Ilex* is a large genus, to which probably upwards of 200 species are now known to belong. These are scattered widely over both tropical and temperate countries, being found on almost all the great land areas of the globe. About twenty species can be grown in the average climate of Great Britain, and eight of these are true evergreen Hollies. The deciduous ones belong chiefly to the group formerly known as *Prinos*, and are shrubs notable mainly for their handsome fruits; they are not, however, much grown nowadays. The eight species mentioned are as follow: European—*Ilex Aquifolium*; Asiatic—*I. cornuta*, *I. dipyrena*, *I. latifolia*, *I. crenata*, *I. integra*, and *I. Pernyi*; American—*I. opaca*. These Hollies have little flower beauty; the flowers are small, white or greenish. Their ornamental qualities are in their foliage chiefly, but some are also beautiful in fruit.

Hollies like a rich open loam to grown in, and on poor soils are greatly benefited by mulchings of rotted manure. Transplanting, or any other operation that involves root disturbance, should be performed in autumn (say during September if the weather is suitable), or in May, during showery weather if possible.

I. CORNUTA.

This interesting and distinct Holly was first discovered by Fortune, near Shanghai, and was sent home by him to the nursery of Messrs. Standish and Co. at Bagshot now over fifty years ago. It is still an uncommon plant in English gardens, although very handsome and quite distinct from any other species. It is apparently much dwarfer than our native Holly, and I have not seen it more than 7 feet or 8 feet high, although specimens much larger than that no doubt exist, in the gardens of the south-west especially. It is not suitable for the colder parts of the Kingdom, although at Kew I have not seen it seriously injured by frost. In habit it is a compact rounded bush, which, if left unpruned, is usually broader than it is high. Its leaves are leathery in texture, of a very dark glossy green, 2 inches to 4 inches long, and somewhat rectangular in outline. The terminal portion is armed with three large spines, and there are two also at the base. Usually, but not invariably, there is a decurved spine at each side near the centre of the leaf. The number of spines therefore is usually five or seven, but curiously Lindley and Paxton show only three in a figure in the first volume of "The Flower Garden." The fruit, which is not freely produced, is round, larger than the common Holly-berry, and red. Its attractions lie in its distinct and handsome lustrous foliage and in its shapely habit.

I. CRENATA.

Owing to its slow growth this curious Japanese Holly has never been largely grown by nurserymen, consequently it is but little planted in private gardens. It is a characteristically Japanese shrub, being close in habit, much branched, somewhat rigid and small-leaved. Sargent describes it as the most abundant and widely-distributed of the evergreen Japanese Hollies. Specimens 8 feet to 10 feet high exist in this country, and under cultivation in Japan it is frequently twice as high. It is, however, usually a low dense shrub not more than 3 feet or 4 feet high. Several forms of it are in cultivation varying in size of leaf, and the larger the leaf the more open is the habit and quicker the growth. It is, however, the typical, close-habited, rigid shrub that is, I think, so interesting and desirable. In this form the leaf is narrow, lanceolate, three-quarters of an inch long, and slightly toothed; on the whole the leaf is very like that of *Pernettya mucronata*. There are, however, other forms (var. *major* is one) with leaves much larger and more oblong in outline. Professor Sargent introduced one from Japan with leaves 1½ inches long and half as much broad. There is a variegated form in cultivation also, the leaves of which are more or less specked with yellow, but it has no particular merit. This Holly flowers frequently in this country, but does not fruit freely. The fruit is black. In Japan bushes of this *Ilex* are used as subjects for topiary work, just as Yew and Box are used with us.

I. DIPYRENA.

Coming from the Himalaya, this species is one of the less hardy Hollies. It is very rarely, however, that it is injured by cold. The fine specimen in the Holly collection at Kew, now 20 feet high and 12 feet in diameter, was not injured by the great frost of February, 1895, but I was told by the late Mr. True-love, who for many years had charge of the arboretum, that it had been once killed back to the ground level. It is an evergreen tree, 40 feet or more high, with a trunk sometimes 4 feet to 5 feet in girth; this, of course, in a wild state. The leaves are of a somewhat dull green, and not so dark as those of the common Holly; they are lanceolate, 2 inches to 5 inches long, the margins armed with thin spine-like teeth. As the tree gets older these marginal spines disappear. The fruit is one-third of an inch to half an inch in diameter, globose, and red. Whilst this Holly is not to be

recommended for general planting, it is worth the notice of those who are interested in rare trees, and especially of those whose gardens are in the warmer parts of the British Isles.

*Kew.* W. J. BEAN.

(To be continued.)

TREES AND SHRUBS.

FAGUS SYLVATICA.

**O**ur native trees none is more beautiful and characteristic than the Beech. A well grown isolated specimen, but still more an isolated group of trees, is one of the most pleasing features an English park can show. It is naturally a tree of rounded shape, with wide-spreading branches; sometimes the branches touch the ground, take root there, and ultimately form new trees—a bit of natural layering. The trunk of the Beech usually smooth and of a grey silvery colour but occasionally rough or corrugated, is, in specimen trees, short in proportion to its height. Drawn up, however, by companion trees, as in the illustration, the Beech will attain to heights of 90 feet to 100 feet, sometimes as much as 120 feet, with trunks clear to half their height.

While the Beech in its indigenous state appears chiefly to affect calcareous soils, often forming pure forests there, it will thrive in



BEECH IN PLANTATION: NATURAL GROWTH (ABOUT 100 YEARS OLD).

sandy or loamy soils. At Kew, growing on sandy soil, are many fine examples. Rooting nearer the surface than such trees as Oak or Ash, the clearing away of fallen leaves from under the Beech is a particularly ill-advised proceeding, resulting in enfeebled growth and thin foliage, even premature decay. On poor soils, indeed, the reverse process of occasionally mulching the roots with decayed leaves is to be recommended, especially in the case of isolated trees of great age.

Apart from the beauty of its trunk, the Beech in winter is less picturesque in branching than the Oak or Elm. It attains its greatest beauty, to my mind, in early June, when the young leaves have almost or quite reached their full size, but still retain that beautiful shade of pale shining green which is not quite like that of any other tree.

The Beech has sported into numerous varieties, the commonest of which is the Purple Beech. This tree, one of the most effective of our larger trees with coloured foliage, requires to be used in moderation in gardens, still more so in parks, for it does not accord well with masses of our ordinary British trees. Its foliage is very beautiful when young, being then of a pale claret colour. With age it acquires a heavy purple hue.

The best weeping varieties of the Beech, of which there are about half a dozen, are also very striking trees. None is superior to the common Weeping Beech (var. *pendula*), of which there are magnificent specimens in the British Isles, notably at the Knap Hill Nursery, in Surrey, and in the Lough Nursery, Cork. This variety forms a huge tent-like mass, the main limbs growing horizontally, while hanging from them perpendicularly are the smaller branches.

A new variety which is very highly spoken of is the Servian Beech or var. *Zlatia*, found on the mountains of Servia a few years ago. Its foliage when young is golden yellow, with all the delicacy of shade that belongs to the young foliage of the Beech in all its forms. As the season advances it turns to the ordinary green.

W. J. BEAN.

#### OLEARIA INSIGNIS.

THE various species of *Olearia* form a distinct group of Compositæ, and of the number *O. insignis* is at the same time one of the most interesting and distinct. It is a native of New Zealand, being found in the Middle Island at an elevation of 5,000 feet above sea level. It was first discovered about 1850 by Captain D. Rough, but though it has been known for so long it cannot be said to be

at all common. When growing well it makes a low, flat-headed bush, as seen in the illustration. The branches are about one-third to half an inch in diameter, and are covered with brownish felty hairs. The leaves are 4 inches to 6 inches long, elliptic, entire and thick in texture. When young they are covered on both surfaces with felty hairs like the stem, but with age much of this felt wears off the upper surface. The inflorescences are borne on long peduncles, and are axillary, or, in some cases, terminal. When axillary they come from the axils near the ends of the branches only. Each inflorescence is from 2½ inches to 3½ inches across, the ray florets being white, the dis-

temporary framework to which to train the trees till they have filled the space and formed the shape. In old days Hornbeam was the tree most used, and for a simple green alley nothing is better. Beech is also good. Several other of the smaller trees of weeping growth should be more used for this and the allied uses of training for arbours and other shelter spaces in the garden.

The Common Plane is much used on the Continent for green shelters; the trees are pollarded at about 8 feet high, and the vigorous young growths trained down horizontally to a slight framework.

It would be interesting to make a green alley

with two or, perhaps, three kinds of plants whose leaf form was of somewhat the same structure. For instance, a groundwork of Weeping Ash could soon be trained into shape, and *Wistaria* could be led to grow all over and through it. The more stiff and woody Ash would supply the eventual solid framework, and by the time the *Wistaria* was making strong growth (for it is a plant very slow to make a beginning) the whole would be well in shape, and might dispense with the framing of "carpenter's work" that is necessary for its first shaping. It would be best to plant the Ash zigzag across



OLEARIA INSIGNIS.

yellow. The peduncles, like the leaves and stems, are thickly covered with silky felt. When growing wild this *Senecio* is said to inhabit the rocky sides of rivers, the roots finding congenial conditions in fissures of rocks in which there is a deposit of rich, light soil. About London it has to be grown in a greenhouse in pots, and under these conditions it is rarely seen to advantage. In some Cornish gardens it is met with growing well, particularly in Lord Falmouth's garden, Tregothnan. Similar soil to that in which *Rhododendrons* luxuriate is most suitable for this *Olearia*.

W. DALLIMORE.

#### GREEN ALLEYS.

In the formation of green alleys there are flowering Cherries of weeping habit that would suit well for such treatment, and several other small trees of pendulous growth, such as *Laburnum*, Weeping Ash, and the large-leaved Weeping Elm. There is an important green alley at West Dean, near Chichester, of *Laburnum* only. The green alley differs from the pergola in that the pergola has solid and permanent supports, its original purpose, in addition to the giving of shade, being to support Vines. The green alley being made of stiffer and more woody growths only needs a

the path so that the main of the head of each tree might be trained across the path and down to the ground on the opposite side, when it would occupy the space between the two opposite trees.

It is important to further maintain the distinction between green alley and pergola by using in the green alley only things of a permanent and woody character; no *Roses* or *Clematis* or any other plants of which portions are apt to die or wear out. These are proper to the pergola, whose permanent substructure makes it easier to cut away and renew those of its coverings, whether structural or growing, that are liable to partial decay.

A great many delightful things may be done with these green alleys and green shelters. Much interest is already aroused in the pergola, and with it it is well to consider these other related ways of adding to the comfort and delight of our gardens. One thing, however, should be carefully considered. It should be remembered that where a path is made more important by passing under trained green growths it should have some definite reason for being so accentuated, certainly at one end, and desirably at both. It often occurs that in laying out ground the owner wishes to have a pergola, as it were, in the air, and when there is nothing to justify its

presence. It should not be put at haphazard over any part of a garden walk. If of any length, it should distinctly lead from somewhere to somewhere of importance in the garden design, and should, at least at one end, finish in some distinct full-stop, such as a well-designed summer-house or tea-house.

Another important matter is that a pergola or green alley in the usual sense should never wind or go uphill. We do not mean to say that shading coverings cannot be used in such places, but that they would want quite especial design, and it is altogether a matter of doubt if these could not be much better treated in other ways.

The circumstances of different gardens are so infinitely various that it is impossible to lay down hard rules; we can only offer general rules, and leave exceptional circumstances to be dealt with by exceptional treatment.

The illustration shows one of the most interesting features in the gardens of Hampton Court, namely, the Wych Elm Walk or Queen Mary's Bower; it is picturesque in winter with its interwoven branches, and in summer a grateful retreat from the heat of the day.

## ROUND ABOUT A GARDEN.

### THE MOST AMUSIVE GARDENING

**N**OW is the time when my favourite form of gardening—the only gardening, indeed, which I rejoice to do with my own hands—can be pursued with vigour and produces the best results per pound of energy expended. Leave the flower-beds, now in Apple-pie order—and something of mud-pie aspect—to the gardener who has marshalled underground your battalions of bulbs for their annual spring review, and betake yourself to the shrubby paths, or, better still, to the coppice or the spinney, with a large basket—a “skep” we call it in Norfolk—and a pair of shears. Everything is pushing ahead in the shelter of the Larches and the ever-greens, and now is your time to check the undesirables and give your favourites a splendid start in the race of the year.

### CHERISHED WILDINGS.

You commence operations in the grassy bay where your winding woodland path debouches like a little river upon the miniature green sea of the lawn. From here the gardener's mowing-machine sweeps always in a respectful curve, for he knows that the grass there is filled with Bee Orchids, Harebells, Dropwort, and other “field-weeds” which you cherish; and your shears are busy at once. The Winter Aconites, the Primroses, and the Polyanthus Primulas are already flowering bravely, and the Snowdrop

clusters are hastening forward; but the sticky Cleavers, the dead Nettle, and the Chervil have not been idle either, and “snip-snip-snip” go the shears, until in half an hour you have put all the weeds a month back in their growth, and in that month your flowers will have made great headway. Snipping carefully, too, for fear of cutting the green spikes of growing Daffedils, you have discovered all sorts of little woodland plants and delicate seedlings, which you had almost forgotten, and which would certainly have perished had you not come to their rescue.

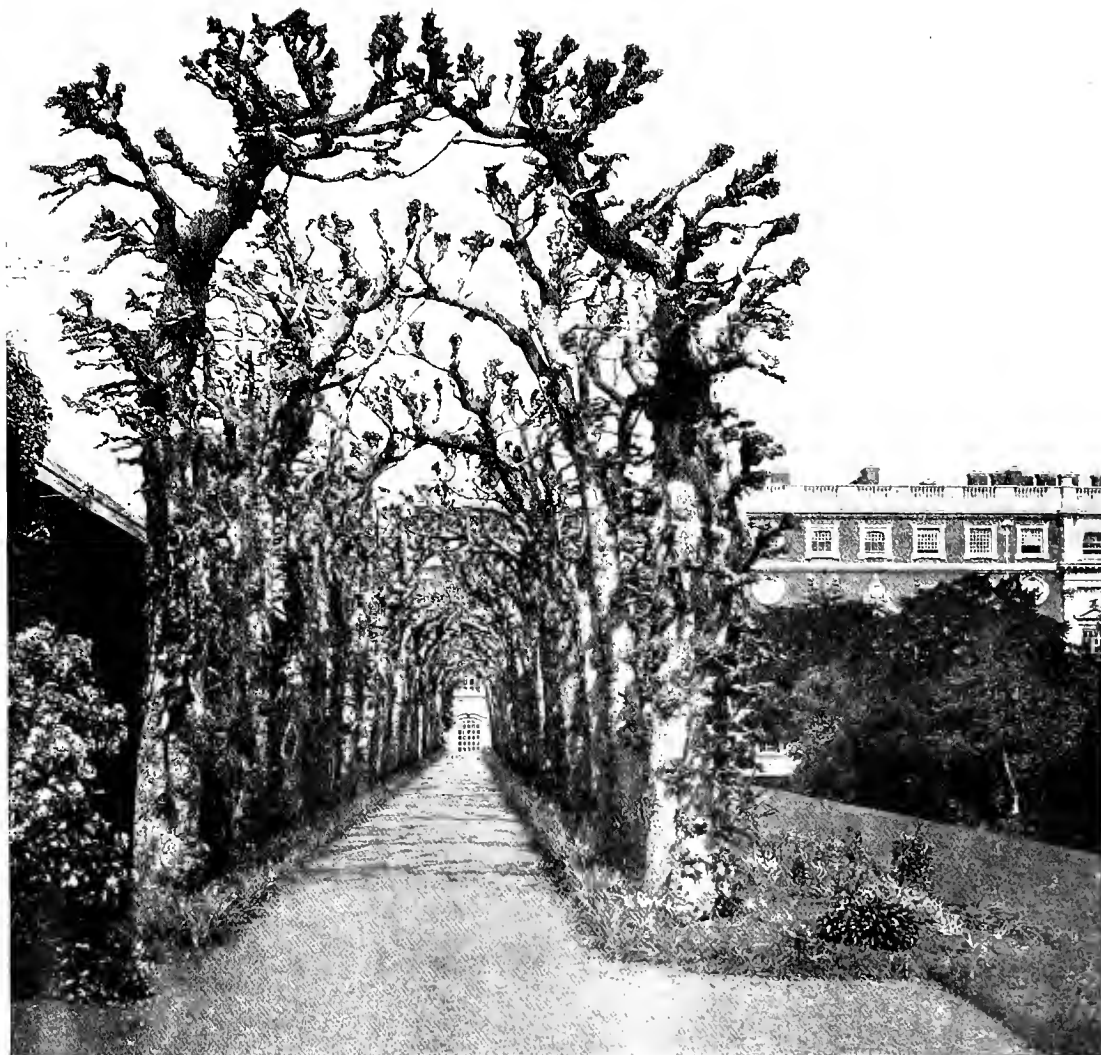
### GOOD WORK FOR WINTER.

One of the best features of this form of gardening is that you can carry it on with the best effect when no other gardening is possible. If the ground is frozen hard you cannot weed the flower-beds, even if you wish; you cannot dig; and you cannot even prune for fear of injury to the cut and exposed tissues. But in shrubby or coppice gardening this injury is a point in your favour. The more you injure the undesirable weeds of the woodland by shearing them close to the ground the better chance your flowers and Ferns will have, and

if the day is cold you can select the worst “jungly” bits for your operations, when, after clearing half a dozen square yards of tangle of last year's dead luxuriance of weed and Briar, you will be quite warm enough—even if you have not to carry your own “skep” to the rubbish heap every time that it is filled.

### MAKING NEW PATHS.

You cannot have too many paths in spinney or coppice, because, wherever paths diverge, you can take the weed-plants between in flank and rear, and create new oases of selected beauty. And it is only now that you can lay out your new paths with an unfettered mind. That thin, ragged stick, which is all that stands in the way of a delightful detour round the nook where the Lilies of the Valley bloom in season, would be a flourishing young Oak tree later, and shut out the vista of potential beauty. Now you can root it up—and a few “other things” of no value—without compunction; and, lo! you have a new woodland path ready for adornment. Here, as you shear the margins close, discovering more desirable plants and seedlings than you could have hoped for, you can mark at once with labels



QUEEN MARY'S BOWER AT HAMPTON COURT: THE WYCH ELM WALK.

the spots where choice woodland plants are to be placed, and—such is the value of experience—almost always happens that these newest paths in your coppice become in a few months the most beautiful of all.

#### FAMILIAR VISTAS.

But no æsthetic comparisons diminish your joy in the old paths. Here flourish in colonies the descendants of the scraps of plants which you brought back from holiday rambles—how many years ago!—in other lands. Here you know almost exactly how every inch of ground is occupied, and the “snip-snip” of your shears is almost caressing, as you trim away the grass and trivial weed-seedlings that find slender room to stand on 3-inch tip-toe between your well-established favourites. On the main, broad paths the belt of protected plants seems clear and compact throughout, but if you neglected it for twelve months what a jungle of wild weeds and coarse grass it would become! So you work at it slowly now, inch by inch and foot by foot, and each “snip-snip” of the shears reveals some self-sown seedling flower, which would have had no chance against the coarser infants of the weeds.

#### THE PESTILENT RABBIT.

In coppice gardening you must reverse the process of the rabbit—whom, by the same token, you must not admit to your woodland garden on any excuse whatever. He is amusing and frolicsome and all that, but where there is a rabbit there is no gardening worth the name. For the rabbit goes about deliberately devouring everything which is choice and soft and delicate. Burdock with its clinging hooks, Nettle with its rank invasion and its painful sting, Elder with its stiff and unsightly luxuriance, Cleavers twisting and tangling everything into disorderly confusion—these and a few coarse umbellifers crowd the coppice where the rabbit reigns. There are a few more or less ornamental “rabbit-proof” plants, such as Rhododendron, Daphne, Barberry, Box, and Laurel,

but almost all are stiff and lumpy plants, dimly suggestive of the grouped “ever-greens” in the bare flower-beds of a sooty London “square.”

#### AISLES OF BEAUTY.

But if you reverse the rabbit's process, using your shears—not, as he uses his teeth, to destroy the delicate, but to cut out the rank, the tangled, and the unsightly, you will, in an amazingly short space of years, achieve a coppice in every respect the antithesis of the unsightly warren. Each delicate and graceful plant has, with your help, found a niche which it exactly fills, and where your original plan was happy you will have on every side tier above tier of beauty from little moss-like creeping plants which star the ground with sprinkled blossoms to the tall, flowering bushes and hardy Bamboos, which fill all the spaces below the branches of the trees with grace and greenery, splashed here and there with colour. And all that is needed to attain complete success in woodland gardening is taste and judgment at the outset and unceasing activity with shears and scissors afterwards, especially from now onwards into spring.

E. K. R.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### TUB GARDENING.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—In answer to the queries of your correspondent “J. H. P.,” I will give our experience with tub gardening at Bessborough, County Kilkenny, where the idea was introduced several years ago by the Viscountess Duncannon, principally for the purpose of decorating the terraces during the summer and autumn months. Among the plants most suitable for this purpose are white Marguerites, which, if strong plants are prepared and planted in the tubs in good rich soil,

will give a fine display from the end of May till cut down by frosts in the autumn. These look particularly well if standing with a dark background, such as a Yew or Holly hedge. Agapanthus make splendid tub plants, also Myrtles, Camellias, Aloysias, Agaves, Geraniums (especially Ivy-leaved varieties for draping the sides of the tubs), Fuchsias, and Begonias. Cannas do very well, though looking rather stiff. Tulips (as suggested), Hyacinths and other bulbs, Wallflowers, &c., would be very nice in spring. Later, a few tubs of Arum Lilies could be tried in a sheltered position. Gladioli, the dwarf early varieties, would make a good show, but would require a groundwork of suitable dwarf plants. I have had no experience with Pæonies, but am doubtful if these would be a success in tubs.

The between-season treatment depends very much on the plants employed. The majority would require to be in a cool, light house for the winter. Plunging in leaves I do not see the necessity of. The most essential point in tub gardening is that the plants must never be neglected in the matter of watering. An occasional top-dressing is a very great help to a continual display (a little artificial manure, mixed with fine soil, is a good way of applying a stimulant), but if the plants in tubs are once allowed to flag for want of water they will never be a success, but lose colour in the foliage, cease blooming, and look altogether miserable. Regarding tins, if a great quantity are required it would save so many tubs, but all permanent plants, such as Myrtles, Agapanthus, &c., I should put straight into tubs, using tins for the softer things. Petroleum barrels sawn in two make very suitable and inexpensive tubs; they can be painted any colour, the iron bands being painted another shade if desired. If tubs were required in the winter, hardy evergreen foliage shrubs would have to be used. J. G. WESTON.

Bessborough, County Kilkenny.

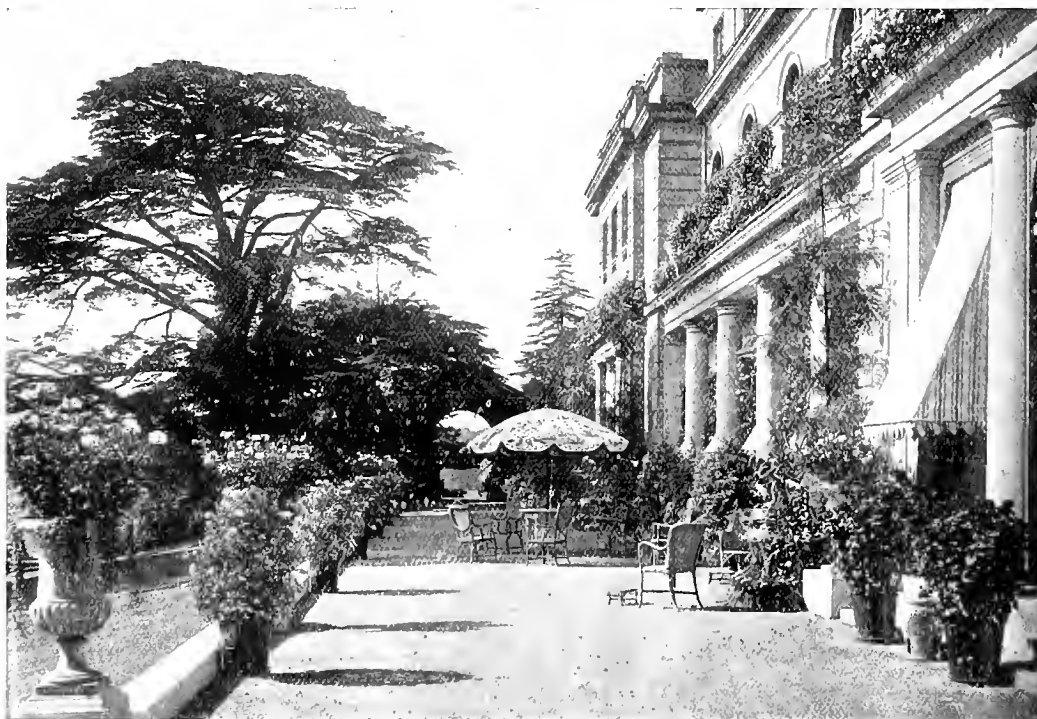
[TO THE EDITOR OF “THE GARDEN.”]

SIR,—In reply to “J. H. P.,” respecting tub plants, I will endeavour to give my experience of them. In the first place, I have never found it wise to plunge any of the tubs while the plants are growing, as the roots feel the effect after the tubs are exposed in their allotted positions, and, besides, plunging has an injurious effect upon the paint or varnish as well as rotting the tubs. With regard to zinc lining it is not to be recommended, but give preference to large pots and pans made to fit stationary tubs, as it is a well-known fact that any plant grows far better in potware than in zinc. Tub filled with perfectly hardy plants should certainly have litter or any suitable material placed around them in very severe weather; they are stored away in the reserve ground to rest. As to each batch of plants having separate tubs, this will depend on the plants used; for instance, those of spring-flowering plants, consisting of biennials and bulbs, should be emptied, well cleaned, and replanted with plants to flower in summer and autumn, these being ready in their turn to receive the same class of plants by October, while other tubs contain permanent plants, which I will give below. Taking the permanent plants first:

AGAPANTHUS, before very severe weather sets in, must be removed indoors, either to a light shed or cool greenhouse, just keeping the soil moist till growth recommences. When all danger of frost is over, stand out in a good position and water copiously with both manure and clear water.

CAMELIAS treat similarly, with the exception of manure-water, giving an occasional application of diluted soot-water instead.

HYDRANGEA HORTENSIS must be protected from severe weather in any cold house or like structure till spring. In



TUB PLANTS ON THE TERRACE AT GUNNERSBURY HOUSE, A RESIDENCE OF MR. LEOPOLD DE ROTHSCHILD.

the growing season give copious supplies of clear and liquid water. This plant is a noble one when seen in good flowering condition; it flowers in summer. *H. paniculata grandiflora* to be successful with should be pruned hard back in March to one or two pairs of buds, well fed, and top-dressed. This variety will not need indoor protection. It flowers in autumn.

**ERYTHRINA** forms one of the most handsome wooded plants we have. Its coral-like flowers are greatly admired, as they last long in beauty. It needs protection from frost, and should be pruned hard back in spring and grown rapidly on.

**BRUGMANSIAS** make charming tubs. Keep them dry in the greenhouse in winter. In February prune hard back, and start removing outdoors in May.

**ALOYSIA CITRIODORA** (Sweet-scented Verbena).—This is a delightful plant for tubs, growing into perfect pyramids fully 8 feet in height. Winter it in a sheltered shed or cold house and keep dry. In spring prune the dead points back, top-dress, and start, stopping the growths when they have made six or seven pairs of leaves. Repeat this to form compactness; then let them flower in autumn if desirable. Remove outdoors in a sheltered place in early May.

**PLUMBAGO CAPENSIS** requires similar treatment; it has lavender-coloured flowers. Fuchsias, perhaps, are the finest plants grown for tubs in their season; particularly during the last two years the double variety named *Mme. Corneillon*, red and white, being compact and literally covered with bloom was a most beautiful sight. Most varieties are well worth growing. They must be kept dry during the winter and free from frost. Start in February in gentle heat, prune back, and occasionally stop them, placing them outside in May.

**LILIES** are very useful for tubs, and are of easy culture. They should be planted as soon as obtainable, placing them away from excessive wet till they have made plenty of roots. When growth appears it will then be known that root-action has taken place. Remove them out in a sheltered spot in April or May. *L. auratum* and *L. speciosum* are two excellent sorts. *Rhododendrons* and *Choisya ternata* make two capital late spring-flowering subjects. Other plants suitable where foliage alone is admired and that break the monotony of flowering tubs are *Aloes*, *Phormium tenax*, *P. t. variegatum*, *Aralia Sieboldii* (grand), *Eulalia zebrina*, *E. japonica variegata*, and *Bamboos*.

The majority of the following plants are of annual and biennial duration; thus when flowering time is past they can be thrown away and the tubs again filled with spring-flowering plants, besides evergreen ones for the winter decoration if so desired.

**CALCEOLARIA AMPLEXICAULIS** is a most charming plant grown in tubs. I have known it to grow 5 feet high and as much through. It should be staked to a certain height, then allowed to fall and grow naturally. With its sulphur-coloured flowers in profusion it forms an object never to be forgotten. Its requirements are so simple, too. Strike cuttings in autumn, inserting them in boxes, and place in a cold frame. Pot up in January, place in slight heat, repot if necessary, stake the plants, and tub as soon as the spring flowers are over.

**SWEET PEAS** for summer blooming from June onwards are wonderfully effective and pleasing. Sow four or five seeds in a 5-inch pot in February in slight heat, grow steadily on, then harden off in a cold frame. Tub them in April with due attention as to feeding and watering, keeping the fading flowers picked off to prevent seed-bearing. They will bloom uninterruptedly well into the autumn. One variety in a tub is most effective.

**CAMPANULA PYRAMIDALIS** grown into flowering sized plants in pots can always be potted in late spring, or rather tubbed, even when the spikes are throwing up. They are, indeed, noble plants for the purpose, as they will flower in July and August.

**NICOTIANA SYLVESTRIS**, where furnished tubs are required in a short time, is a first-rate plant, growing fully 5 feet high, and crowned with beautiful heads of snow-white flowers; altogether a most stately plant. Seed should be sown in heat in February, prick off, and pot on as needed. Grow

rapidly on, harden off, and tub at the end of May, placing five plants in a tub.

**TROPÆOLUMS**.—Climbing varieties such as *Brilliant*, *Firefly*, and *fulgens* are perfect masses of bloom if treated as tub plants, placing a stake for each one to ascend. Sow at the end of February, pot off, and plant in tubs in May. *Marguerites*, both white and yellow, rooted and treated the same as for *Calceolarias*, form very effective tubs.

**LOBELIA CARDINALIS** for shady parts has no equal, growing fully 5 feet high; an uncommon sight with its brilliant spikes of bloom. Keep it in cold frames in boxes through the winter. In February divide, pot up singly the strongest plants, and finally tub in May or June. When established give large quantities of water, both liquid and clear. *Salvia splendens* and its varieties form brilliant tubs if struck early in February and grown on, tubbing in May.

**CANNAS** for such work must never be forgotten, the old dark variety growing fully 6 feet high, forming a perfect mound. Store away as for *Dahlias*, start in boxes in spring, and tub in June. Foliage plants such as the golden and silver *Abutilons* make most pleasing tubs. They can be grown on in large pots for reserve plants should they be needed, also the *Ricinus*, *Begonia fuchsoides*, and *B. Ingrami*. The groundwork on some of the tubs can be filled with advantage with such plants as *Begonia semperflorens*, *Iresine*, *Sweet Alyssum*, *Salvia patens*, &c. The tubs I have chiefly used have been paraffin ones cut in half, painted to suit the taste, with extra bands attached where necessary. These answer very well. I have used just two of the "Champion" tubs, strongly recommended by you, and must say they are a beautiful and highly-finished article, strong and lasting.

GEORGE ELLWOOD.

*Swanmore Gardens, Bishop's Waltham.*

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent "J. H. P." should certainly include *Lilies* in a collection of plants for growing in tubs. *Lilies* are everybody's favourites, and they will grow as well in tubs as in the border; in fact, they will often grow better in tubs than in borders, for the preparation of soil, &c., is so much more under control. It is an important matter in the cultivation of tub plants to have thorough drainage so that superfluous water can escape. Unless this is assured all attempts are sure to end in partial or complete failure. The three *Lilies* that are most usually grown in tubs are *L. auratum*, *L. speciosum*, and *L. tigrinum*, with their varieties, but I see no reason why the list should not be extended, and such sorts as *croceum*, *Hansonii*, *Brownii*, *longiflorum*, and many more included. In fact, those whose soil will not grow some of the beautiful swamp *Lilies* of America that need moist peat for their successful culture, might do much better with them in tubs than in the border; the conditions they need could more easily be given. *L. speciosum* and *L. tigrinum* will grow well in loam and leaf-soil, with plenty of silver sand, but *L. auratum* is all the better for an admixture of peat. *L. tigrinum* and *L. speciosum* are very valuable plants for late autumn, and the latter does particularly well in the shade. The best way is to start them into growth in the spring under glass, moving them out of doors to a half-shaded position when all danger from frost is over. *Lilies* in tubs appreciate applications of liquid manure and soot water. These add colour to the leaves, as well as vigour to the flower-stems. In order to produce a good display the bulbs should be planted fairly closely together in the tubs. The best variety of *L. tigrinum* is *splendens*, while of *L. auratum* and *L. speciosum* there are numerous good ones. *Sutton's Nemesia strumosa* will make a brave show in tubs, and so will *Carnations*, *Lobelias*, and *Ivy-leaved Pelargoniums*.

To grow the latter well all the plants must not be inserted in the top of the tub, but there must be holes made in the sides to receive plants also. The result is when the plants are fully grown that the tub is a mass of flowers and foliage. At St. Fagan's, Lord Windsor's Glamorganshire seat, tub

gardening is extensively and successfully practised. The tubs of *Carnations*, *Lobelias*, and *Ivy-leaved Pelargoniums* there are very pretty objects. The plants are put in around the tubs at intervals, as well as at the top, and the result is that the latter become masses of blossom. A pleasing colour for the tubs is sage green.

A. P. H.

## GARDENING OF THE WEEK.

### THE INDOOR GARDEN.

RICHARDIA ELLIOTTIANA.

**P**ERHAPS of all the early summer-flowering plants there is none to supersede the *Golden Arum*. For quite a fortnight the flowers will last in good condition when cut and put into water. Unlike the white varieties, the golden one is deciduous, and, after a period of rest, the corms by this time should be ready for potting up and starting into growth. Plant them in pots just large enough to receive them, using a compost of equal parts leaf-soil and fibrous loam, peat being added when the loam is not sufficiently fibrous, with a little dried cow manure and coarse sand. The plant is a free grower and a gross feeder, so that liberal treatment is necessary in aiming at good culture. It is a mistake after potting to place them in a strong heat, a temperature of 50° to 55° being quite high enough in which to start them. Exercise great care in the application of water until the plants are rooting freely, but immediately they have filled their pots with roots a more liberal supply will be necessary, and occasionally a dose of liquid made from sheep manure should be given. Shift into larger pots as the plants require it, and endeavour to grow them strongly, and produce, under these circumstances, a second lot of flowers.

The stages, paths, and about the pots should frequently be moistened to create humidity, a condition in which these plants always feel at home.

LACHENALIAS.

The most generally grown of these probably is one called *tricolor*, and whilst this may in various ways be useful for decoration, it can in no way rival the bright golden one called *Nelsoni*. Where there is only a limited stock it would be advisable to grow the plants well and strengthen the bulbs by frequent applications of liquid manure; and especially will this be necessary in the case of those that are situated in baskets suspended from the roof.

CALADIUMS.

Upon the purposes for which these beautiful foliaged plants are required will depend very much the methods to be adopted in their culture. In making an effort—and this should be done at once—to start the bulbs into growth, do so by laying them on cocoanut fibre that is thinly spread over the bottom of a shallow box. The bulbs, through being kept during the winter in a dry condition, will no doubt be somewhat contracted, and require developing into their normal condition before they can either make roots or start into growth. This requires a little time, and during that period exercise care in watering, for a too liberal supply would only end in causing the bulbs to turn soft and probably rot. Create a humid atmosphere by syringing about the paths, stages, &c., and afford a more liberal supply of water only when root activity has earnestly commenced. The largest and best bulbs should be potted up together for producing large specimen plants, the smaller ones being useful to pot up singly, or four or five together, to get plants that will be excellent for table and other decorative work.

J. P. LEADBETTER

*The Gardens, Tranby Croft, Hull.*

### KITCHEN GARDEN.

EVILS OF TOO EARLY SOWING.

The past fortnight has been exceptionally mild and without rain, almost tempting one to go on

the ground and begin sowing. A great deal is said and written nowadays about sowing early, but, as far as my experience goes, I have seen little advantage in sowing till the danger from frost and cold is over. Seeds sown when the soil has been warmed a little by the sun's rays show up favourably with those that have been in the ground for weeks and become weakened by rain and cold and thinned by vermin. Instead then of starting to crop during this mild spell, take every opportunity to push on all kitchen garden work as fast as possible. Plots containing Savoys, Brussels Sprouts, or any of this tribe should be inspected, and, if the crop has been well cut, the remaining heads may be lifted and placed in any handy corner, thus permitting every plot to be dug at once. Those that cannot be so treated may have the manure carted on or near them, building it into a tidy heap until it can be dug in. Any particular crop for which the ground requires special preparation should now be seen to. Where there is a difficulty in growing Carrots, this is a good time to prepare a piece of ground for them. It is very difficult to say exactly what should be done to ensure a good crop of this vegetable. The following method has been tried with great success: Choose a border inclined to be light and sandy and with, if possible, a western exposure. After deeply trenching, wheel on several inches of sharp sand, sea sand if obtainable. Spread evenly over the whole surface, allowing it to be washed in by the rains. A good sprinkling of soot at times through the winter will benefit. It should be lightly forked in before sowing.

#### MUSHROOMS.

Horse manure must be collected daily till sufficient has been got together to form a bed. It should first be thrown loosely into a flat heap 18 inches deep till it is heated. Turn every second day. In about eight days it should be ready for forming a bed. The bed should be 3 feet in width and from 15 inches to 18 inches deep. When the bed is being made up see that the soil is made very firm. When the temperature has fallen to 80° the bed is ready for spawning. The spawn, which should be fresh and of the best quality, should be broken into pieces 1½ inches square and inserted about 8 inches apart. When this has been done give the whole a covering of good sifted turfy loam about 1 inch thick, beating very firm with the back of a spade. The house may be kept at about 60°. Give a slight damping overhead morning and evening with tepid water. THOMAS HAY.

*Hoptoun House Gardens, N.B.*

#### FLOWER GARDEN.

##### SWEET PEAS.

SEEDS may now be sown on a warm border, choosing a fine day and making the drills a few hours before sowing. Mice do not usually ferret out Sweet Pea seeds so much as they do the edible varieties, but it is as well to take some precaution, such as rolling the moistened seed in red lead or putting a thin layer of ashes over the rows and occasionally syringing them with weak paraffin and water. Where seed was sown out of doors in the autumn the soil should be kept drawn up around the young plants, and if they are at all exposed to cutting winds it will be advisable to stick a few branches of Laurel or some similar evergreen into the ground around the rows. Seedlings growing in pots or turves should be moved into frames as soon as they are well out of the soil and gradually hardened off, afterwards giving air freely to promote a sturdy growth. It will soon be necessary to give some slight support.

##### THE SHRUBBERY.

Any planting that may be contemplated should be done without delay, so that fresh roots may be formed to provide nourishment to withstand the drying winds of March. A good mulching is even more necessary than when the planting is done in the autumn. Weeds are as rampant in the shrubbery as elsewhere, and, as hoeing is out of the question, it is a good plan to turn over the top soil 2 inches or 3 inches, carefully using a flat-tined fork.

All strong growers that are encroaching should be curtailed so as to give sufficient room to the choicer shrubs. Where *Hydrangea hortensis* is grown the shoots may now be cut back to a plump bud. *Hypericum calycinum* (the St. John's Wort or Rose of Sharon) makes a capital border to the shrubbery, or if a border is too formal a few clumps here and there in the front now are very effective and useful. It flowers well under the shade of trees, and is also very effective when used as a groundwork with a few of the taller *H. moserianum* as "dot" plants. The stock may easily be increased by lifting and dividing the clumps, taking care not to break the brittle under ground stems.

##### CALCEOLARIAS.

Cuttings of the bedding *Calceolarias*, such as *C. amplexicaulis*, *C. Golden Gem*, &c., which were thickly inserted in cold pits last autumn, will now require pinching. If the stock is short the tops will quickly root if firmly inserted in sandy soil and placed in heat. The pits should be kept closed for a few days after pinching, and when growth has again commenced air should be freely admitted on fine days. That old favourite *Gazania splendens* is amenable to the same culture. It is a most useful edging plant, and looks well until very late in the autumn. One of our most admired beds last summer was composed of pink Ivy-leaf *Pelargoniums* and a broad band of *Gazania* for groundwork, and *Lobelia cardinalis* Firefly planted at intervals of 15 inches. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

#### THE FRUIT GARDEN.

##### PINES.

THE earliest Queens, which were started at the beginning of last month, will now be showing fruit, and require more attention. The temperature may be raised to 70° on mild nights and 80° by day. Give a little air on bright days at 80°, and a further rise of 10° may be allowed after closing. Syringe the walls and paths. The bottom-heat must be carefully watched when hard firing is necessary to see that it does not exceed 90°; if it rises above this the plants should be shaken a little to allow the heat to escape. Examine them carefully, and if dry give weak warm guano water. Do not syringe the plants overhead at this season, but maintain a moist atmosphere by damping the paths and walls several times daily, syringing the surface of the bed when the house is closed. A slightly drier atmosphere should be kept during the time the plants are in flower, and 5° lower in very cold weather.

##### SUCCESSION PINES.

These will soon require to be repotted, fresh material added to the beds, the house washed and made ready for them. The soil should be previously prepared, and should consist of good fibrous loam, and, if heavy, a little lime rubble, wood ashes, or sharp sand should be added. Add also an 8-inch pot of soot and bone-meal to each barrowful of loam. This should be well warmed through before being used. Crock the pots carefully, using those of 10 inches and 12 inches diameter for the strongest plants. Place a little soot over the crocks, and see that the plants are not dry before potting. Remove a few of the short leaves and any loose soil with a pointed stick. Only those should be potted now that have plenty of roots. They should be potted firmly, without damaging the tender rootlets. Plunge in a bottom-heat of 80°, and keep the house a little closer for a time at a temperature of 65° at night, with a 10° or 15° rise during the day. No water will be needed until they are rooted through.

##### SUCKERS.

The strongest autumn suckers which are now in 6-inch pots should be transferred into 10-inch and 12-inch pots. The latter size is better for such strong-growing varieties as Smooth Cayenne and Charlotte Rothschild. Any smaller plants may be potted into 8-inch pots. Replunge the plants 2 feet apart in the house where they are to be grown during the summer. Do not water those

potted for a fortnight, or until rooted through. Remove any suckers from the old stools as soon as large enough, so that a constant supply may be kept up, and pot in 6-inch or 7-inch pots, according to their size.

*Impney Gardens, Droitwich.*

F. JORDAN.

#### CHRYSANTHEMUMS.

COMPLETE the propagation of all varieties required for decorative purposes as speedily as possible. These will include Pompons, singles, and late-flowering sorts. They may either be rooted singly in 2½-inch pots or inserted from three to five around the outside of a 3-inch pot, using a fairly light, gritty compost, and the pots should be well drained. They will at this season quickly take root if arranged on a bed of cinder ashes in a warm pit if kept fresh by frequently spraying them over during the day. Very little air except to prevent them from damping will be needed until roots and fresh growth are made, when more should be gradually applied. In a short time remove them to a cold frame to a light, open position. The value of all kinds suitable for supplying a wealth of bloom during the short, dull days of winter can hardly be over-estimated, and many of the newer kinds introduced during the past two or three years are well worthy of a place in all collections. Particularly fine are Allman's Yellow, a fine golden yellow, and Harry Whateley, a magnificent pure white of exceptional merit, both of which have been well and largely shown this season. Many of the singles are specially well adapted for late blooming, and by stopping these they can be timed to bloom in December and early January, when flowers are so much prized. Select those of a decided colour and which carry their blooms erect. For table and general decoration these are extremely useful and pleasing, and few things at that season last better in a fresh condition even in cold rooms.

Early struck cuttings which are now occupying 2½-inch pots should be sufficiently advanced to receive a shift into a 3-inch size. The compost should be prepared some days before it is used and turned over thoroughly to mix several times. A suitable mixture for this potting will be three parts good fibrous loam of a medium texture, care being taken to retain as much of the fibre as possible, one part well-decayed leaf-soil, Oak or Beech for choice, one part old Mushroom bed manure, adding a liberal supply of coarse silver sand with a dash of finely-broken charcoal and bone-meal.

Before it is used make sure that the compost is sufficiently dry so that it does not cake together when potting. The pots and crocks should be made quite clean and well-dried, and in the case of new pots soak them before using. Sufficient fibre should be placed over the drainage to prevent the soil mixing with it, and the young plants should be well watered before shifting. This potting should be done at intervals, as the whole of the plants are seldom ready at the same time, and much harm will accrue by overpotting, especially at this season of the year. The soil should be made moderately firm about the roots, and sprinkle a little sand over the surface as each plant is potted, and ensure each being correctly labelled.

The most suitable place to enable them to recover from the slight check which they must necessarily receive is a light pit with just sufficient piping to counteract frost. Arrange them as near the glass as possible on a bed of fine cinder ashes. Sprinkle them over several times during the day when the weather is bright to prevent flagging, and about the third day thoroughly water in, using a rose watering-can and tepid water. Fill up the pots at least three times; it is essential that every particle of the soil becomes thoroughly moistened. Fire-heat should be turned off during the day, and gradually admit more air as the plants begin to make root to encourage a stout, sturdy growth, and fumigate frequently to prevent the growths becoming infested with aphids.

E. BECKETT.

*Aldenham House Gardens, Elstree.*



## ORCHIDS.

## CYPRIPEDIUM INSIGNE.

ORCHID enthusiasts are numerous around Manchester and Liverpool, and the accompanying illustration shows the interior of a house of *Cypripediums* in the gardens of one of them, S. Gratrix, Esq., West Point (gardener, Mr. George Cypher). Most of the plants in the house are forms of *Cypripedium insigne*, and such good sorts are included as *C. insigne* Harefield Hall var., *C. i. Johnsoni*, *C. i. West Point* variety, *C. i. sanderianum giganteum*, *C. i. Sanderæ*, *C. i. Chantini Lindeni*, *C. i. Dorothy*, and *C. i. Laura Kimball*. As all have been awarded first-class certificates either by the Royal Horticultural Society or by the Manchester and North of England Orchid Society, some idea may be had of the value and rarity of the contents of this house.

## AT THE SALES.

At Messrs. Protheroe and Morris' auction rooms on Friday last there was a very fine display of Orchids in flower, and there was a better demand for them than on previous occasions, though prices did not run high. During the season a good many hybrid *Cypripediums* have been sold, and any distinct novelty has commanded good prices. On Friday one was sold for £5, and another for £3; a good piece of *Lælia anceps sanderiana* made 31s.; and a good plant of *Odontoglossum Edwardii* 18s. Some fine plants of *Odontoglossum crispum* in flower were sold, the highest price being 21s. *Lycaste Skinneri* in flower made only from 4s. to 7s. each, and *Lælio-Cattleya Charlesworthi*, in bud, 11s. each. Among the new and rare Orchids, which are always offered at two o'clock, was a splendid piece of *Cypripedium leeanum clinkaberryanum*, said to be one of the finest known; it was valued at 50 guineas, but the bidding only reached 40 guineas, and we understood it was not sold. A good variety of *Cattleya Trianae* sold for 5 guineas, and a fine yellow variety of *Odontoglossum crispum* also made 5 guineas. An importation of *Cypripedium insigne* sold well, some of the best pieces

or by cutting away the leads with one or two pseudo-bulbs attached. In both cases it should be done when new roots are being emitted from last year's bulbs. If so desired, make them into specimens again; they should be so placed that all the leads point towards the rim of the receptacle, taking care properly to balance the plant. Two or three leads placed together in a 7-inch or 8-inch pot or pan make very useful plants that can be potted on without disturbance. When the method of cutting off the leads is adopted, the old plant should not be disturbed if it is in fair health. New leads will soon be made, which could be treated in the same way next season. By this means the plants are made young, and if judiciously followed up the stock will be greatly increased.

## COMPOST AND POTTING.

A good compost consists of three-fifths fibrous peat, one-fifth good chopped sphagnum, and one-fifth good leaf-soil, well mixed together with some coarse sand. Pots or pans that have no side holes are preferable to teak baskets or perforated pans. Pottling should be done rather firmly, taking care to well work the material in between the severed



CYPRIPEDIUM INSIGNE IN THE GARDENS AT WEST POINT, WHALLEY RANGE, MANCHESTER.

I WAS much interested in Mr. Mark Webster's remarks regarding the treatment of this useful Orchid. We do not often hear of manure being recommended for Orchids, yet there is little doubt that not only *Cypripediums*, but many others are greatly benefited by the judicious application of manure at certain seasons. I have heard it said that they do not get manure when growing under natural conditions, yet it seems to me that they do.

The deposit left by birds may not have much effect in the dry season, but when the rains come it is washed in among the roots, and great benefit is derived at the season when it is most needed. I have experienced similar results to those recorded by Mr. Webster, but the manures I have used have been cow manure and soot. The cow manure must be procured from a source where no disinfectants are used. I have found that *Lycaste Skinneri* and its varieties succeed well when potted in good fibrous loam used in lumps and mixed with cow manure collected from fields and thoroughly dried before using. Potted in this and given liquid manure freely while making growth, they make large pseudo-bulbs and also flower well, the flowers being much larger than under the treatment they often receive.

A. H.

making from 7s. to 10s. each. There was also a good importation of *Odontoglossum harrayanum*, the first that had been offered for about ten years. These made various prices, 16s. being about the top price. A good many went at from 5s. to 8s. each.

## THE WEEK'S WORK.

## LÆLIA ANCEPS.

THESE desirable winter-flowering Orchids, with few exceptions, will now have ceased flowering, and a strict watch for evidence of new roots should be kept if the plants require repotting or if there is a desire to propagate. They do not like being disturbed more than is absolutely necessary, so when blooming is over give an annual resurfacing or pot on as the case demands. Although good plants are seldom seen, they cannot be called difficult to grow provided they are treated right. Many dwindle away by allowing so many useless back pseudo-bulbs to remain; in fact, I consider this the principal cause of many being lost. From time to time they must be rejuvenated. This can be done either by pulling the plants carefully to pieces and removing all back pseudo-bulbs, with the exception of two behind the leading bulb,

portions, keeping the rhizome of the plant on a level with the surface. Sufficient space should be left to allow of a good top-dressing of sphagnum.

## QUARTERS.

These being such sun-loving plants, they should be given the lightest position possible in the intermediate house. During the summer they only require a very light shade during the hottest part of the day. For some time they will not require much water; those that are rooting freely will require more than the others, but it is most important that the plants should be kept dormant as long as possible. Those that start into growth late generally give more flowering bulbs. Among the best varieties are *L. a. Stella*, *L. a. Dawsoni*, *L. a. Bull's alba*, *L. a. Wad-donensis*, *L. a. schroederiana*, *L. a. hilliana*, *L. a. sanderiana*, *L. a. hollidayana* (these are white forms), *L. a. Amesiae*, *L. a. Schroderæ*, and *L. a. chamberlainiana*.

## LÆLIA JONGHEANA,

now fast developing its beautiful flowers, will require a fair amount of water and be so placed that all light and sunshine may reach the plant. The intermediate house is very suitable, and they should be suspended.

## CALANTHUS.

The deciduous kinds should be given a rest as they pass out of flower. The best place for them is a shelf in a somewhat dry house where the temperature does not fall below 55°, so that they can have the advantages of all light and sunshine. They must be left quite dry. It is immaterial whether they are kept in their pots or shaken out and placed in dry sand. If the latter is done, keep the dormant eye above the level of the sand, and see that the labels are securely attached. W. P. BOUND.

Gatton Park Gardens, Reigate.

GRADING AND PACKING  
FRUIT & VEGETABLES.

(Continued from page 80.)

MUCH could be said in favour of boxes for fruits, and, where only small sizes are employed, they may be purchased or made so cheaply that they can be included in the price of the fruit, and thus all the trouble of returning or collecting empties is avoided. Their more general use under the right conditions would assist producers to avoid overstocking the markets in seasons of heavy crops, and, by facilitating direct communication with the consumers, secure better prices. In a small way, boxes can be made at home at a cost of 1½d. to 1s. each; on a larger scale, with the use of machinery, they may be turned out at about 8s. to 50s. per 100, according to the size, and boxes costing 1d. to 6d. can always be given with the best grades of fruit usually even with profit. Many of the leading railway companies have recognised this fact, and now supply boxes of varied sizes at 1s. 6d. to 5s. per dozen, while several manufacturers also supply to large orders at very reasonable prices.

Various materials are available for packing purposes, but much the best are the several grades of wood wool now prepared, the coarsest being suitable for large packages and heavy fruits, and the finest softest samples for the choicest and ripe fruits. But wherever it is to be in contact even with Apples and Pears only the softest make should be employed; the rougher samples can be used for the bottom, or filling up at the top. All choice and delicate fruits should be encircled with bands of folded soft tissue paper having a glazed surface, which must be in contact with the fruit. This is also required to place over the top layers, but a stronger paper is used for unripe Apples or Pears.

In the actual work of packing, an even layer of wood wool is placed at the bottom of the box or basket, this being covered with a sheet of paper, and upon it the fruits to be disposed of are placed firmly. The best Plums, Pears, or dessert Apples should never be in more than two layers, and in the smallest boxes, holding one layer, they travel in the finest condition. If only one layer of fruit is made, the packing material at the bottom, and that at the top, besides the folded paper band round each fruit, will be all that is essential; but if there are two layers, they must be separated by two sheets of paper, and sufficient fine wood wool evenly spread to prevent injury to the lower fruits and form a firm bed for the upper ones to rest upon. From one dozen to four dozen of the best dessert Apples, Pears, or Plums may be so packed in one box with safety for a long journey. Peaches, Nectarines, and Apricots must always be in single layers, and demand the utmost care.

## STRAWBERRIES

can be packed in from 3lb. to 6lb. of selected fruits, but the first-named quantity is the best for the finest fruit, and the smallest of the railway boxes just holds that amount conveniently, allowing for a little packing material at the top and bottom. The same size box will hold 4lb. of best Cherries, 3lb. of Raspberries without their stalks, 3lb. Red Currants (closely packed), or 4lb. of Black Currants; but the last two may be packed in 6lb. to 12lb. lots if not too ripe; the smaller quantities are, however, preferable and safer. The finest early Strawberries should be packed in 1lb. punnets, which may be either deep or shallow, round-plaited chip punnets, or square ones (with or without handles). The

round punnets are best packed in trays with lids, and those generally employed will take six punnets. They are only used for the earliest and choicest fruits, when prices are good. Crates can be employed to hold several such trays, those large enough for six being a convenient size and weight. The square punnets are packed more closely together on sliding shelves, or in trays like the others in crates. Grapes are packed in shallow or handle-baskets, the points of the bunches towards the centre and the stalks secured to the sides or rims, the top of the basket being covered with stout paper tied round the rim, or some handle-baskets are fitted with lids. The sides and base of the baskets are sometimes padded, but they are then always covered with a soft glazed paper. The great point is to avoid rubbing the surfaces of the berries and spoiling the "bloom."

In every case, besides ensuring the security of the finest fruit, it should be displayed to the best advantage, and if the grade is uniform, as advised, this can be done quite honestly by the aid of a little coloured or white tissue paper to fold over the sides when the box is opened, and by arranging the fruits with the coloured side uppermost. The question of

## BRANDING OR LABELLING

must be considered, for where good fruit only is being dealt with, the use of the words "Seconds" and "Thirds" is apt to give rise to a misconception that is unfairly against the seller's interest. For the finest samples "Extra," "Select," or "Special" may be employed. Some mark the next grade A 1 and the next No. 1, or if the letter X is employed, three would be used for the first grade, two for the second, and one for the third. Another method is to term the best Selected No. 1, and the other grades Selected No. 2 and Selected No. 3. Something of this kind is needed to indicate that the lower qualities are not refuse but properly graded fruits. A grower should adopt a uniform system, and adhere to it, so that his brand may become known and have a market value, and every package ought to have the name of the variety and quality boldly printed on the label. Growers who intend to make a substantial business, and who deal honestly in the best produce, should have their own names on the packages. This is sometimes objected to in a market, but if a grower cannot make his business through the ordinary channels he must try fresh ones. It is best to endeavour to supply the shopkeepers, or to develop a trade with private customers, and send direct to them. The reduced rates at owner's risk on the railways, and the parcels post afford ample means for enterprising men to work up a business in small packages of choice fruits if they take the trouble to do so, either by advertising, by circulars, or by trade letters.

In packing vegetables most of the general advice already given should be serviceable; but these are disposed of in larger quantities and therefore require a different class of packages. Bags of various kinds and sizes, with large light open baskets or crates, are more extensively employed than boxes. The majority of roots are sent in bags, but the best samples of Turnips, Carrots, &c., that are bunched are sent in crates, while Radishes and small roots are sent in baskets. Green vegetables, like Cabbages, are best in crates, as also are Broccoli and Cauliflowers, but the earliest and best of the last named are often packed in flat baskets or hampers and pay for every care. The best samples for salading, such as Lettuces, are usually packed in hampers, the rougher grades in crates. Peas and Beans are packed in baskets, bushels, or half-sieves, but, as previously noted, Peas when shelled are forwarded in small boxes containing about three quarts each. Half-sieves are also used for Brussels Sprouts, pickling Onions, and other small vegetables. The earliest Rhubarb is consigned in hampers; the later often goes to market in bundles loaded direct into the vans, or packed in crates, as also is Celery. For all early and high quality vegetables shallow baskets or boxes are useful. Cucumbers, Tomatoes, Mushrooms, and many others can be conveniently sent in this way, and where periodical consignments of general vegetables are sent to private customers this is

the best method. It is necessary to pack firmly as with fruits, and where green or perishable vegetables have to travel a long distance it is desirable to gather them as shortly before packing as possible, preferably in the early morning when quite fresh, but not when drenched with rain. They should not be allowed to remain exposed to sun or wind for some hours before they are sent off, as is sometimes the case, to the obvious disadvantage of the seller. Defective or decaying samples should on no account be admitted into the packages; the uniformity so strongly recommended as regards fruits should be maintained, and it will be found that the reputation gained is a satisfactory reward for the extra care.

## CONTINENTAL NURSERIES

HOW AZALEAS ARE PREPARED FOR  
THE ENGLISH MARKET.

FORMERLY by far the largest portion of the Palms used in this country came from Belgium, and though they are now so extensively raised and grown in some of our English market nurseries, a good many still come from that country.

The growing of Palms is one of the leading features of Mr. Petrick's nursery business, but during the last ten years America has been the best market. Only a limited number of sorts are grown, *Kentia forsteriana* and *K. belmoreana* taking the lead. *Latania borbonica*, *Phoenix canariensis*, *Areca Baueri*, *Chamaerops Fortunei*, *Corypha australis*, and *Cocos weddelliana* are the principal, and they may be seen in large numbers from small seedlings to large specimens. *Raphia flabelliformis*, which is only increased by offshoots, is also grown extensively. We depend almost entirely upon the Belgian nurseries for our supply of

## THE INDIAN AZALEAS,

and the growing of them is a most important branch in Mr. Petrick's extensive nursery business, very large quantities being grown both for this country and for America, and the collection includes all the most recent sorts, some of the newer ones being of his own raising. It is rather remarkable that the system of producing these Azaleas, as adopted by the Belgian growers, has never been followed successfully by our English growers. Our variable climate, of course, has something to do with this. In Belgium they are all planted out in the open ground. The soil consists of a mixture of sandy peat and leaf-mould, but it is evident that a liberal supply of manure is added; this, I believe, is chiefly in liquid form.

It will be seen from the illustration that they are planted in beds of convenient width for watering. The men engaged in watering each use two four-gallon cans, and these are both in use at the same time (that is, they do not stand one down while they empty the other). This is by no means an easy task, and would hardly suit some of our young English gardeners.

The well-flowered plants now being sold in Covent Garden Market are all from Belgium; they usually come over about September. As the masses of roots spread considerably, there is a little difficulty in getting them into pots small enough to suit buyers, and I may point out that it is better to reduce the roots by trimming them round with a knife than to ram them too tight into the pots. A little fresh soil round the roots is more beneficial than crowding in so much of the old. They are a little inclined to lose some leaves, but this is often caused through getting heated in transit, and with those who know how to pack this does not often occur. The varieties are very numerous, and Mr. Petrick's collection is very complete, from these he selects those most suitable for market and grows them in extra large quantities. *Apollo*, *Deutsche Perle*, *Empress of India*, *Niobe*, *Simon Mardner*, *Phœbus*, *Dr. Moore*, *Mme. Van der Cruyssen*, *Paul Webber*, *Hélène Thelemann*, *Sacuntala*, *Edmond Vervaene*, *Bernard André*, *alba*, and *Pauline Mardner* are among those most in demand. I may add that although many



HOW THE GHENT AZALEAS ARE GROWN FOR THE LONDON MARKET: SCENE IN A BELGIAN NURSERY.

the fine varieties now grown are of Continental origin, we are indebted to English raisers for the first of the improved hybrids, the late Mr. Kinghorn of Richmond being the pioneer. The first of his varieties received certificates from the Royal Horticultural Society about the years 1860 to 1864. Mr. Kinghorn was soon followed by Mr. Ivery of Dorking and Messrs. Smith of Dulwich, also others including Van Houtte and M. Vervaine. We also get some from Germany, Mr. Mardoer being the raiser of some of the very best we have at the present time; and, lastly, Mr. Petrick is adding further to the list of improved varieties.

#### AZALEA MOLLIS.

This and other hardy sorts also receive attention. Large numbers of seedlings are grown, also named varieties, and the fine hybrids which are remarkable for the varied and beautiful soft tints in colour. Both the double and single varieties are well represented, all the best named varieties being grown.

Camellias are not quite so popular as formerly, but hardy hybrid Rhododendrons receive considerable attention, a large collection of the most useful sorts for flowering in pots being grown. These find much more favour for forcing than formerly, and the compact Belgian-grown plants are particularly suitable for the purpose. The standard and pyramid Sweet Bays (*Laurus nobilis*) grown in tubs, which are now so frequently seen, all come from Belgium, and Mr. Petrick has a fine stock of most perfect specimens, which are quite an attractive feature in his nursery. *Araucaria excelsa* is another plant which succeeds so well under Belgian treatment. These are grown under a protection of lath-blinds. Mr. Petrick grows his stock from cuttings, the immense quantities of plants being dwarf and well-furnished. In addition to the ordinary form, he has a fine lot of the varieties *compacta robusta* and *glauca*. The last named is a very distinct and beautiful variety.

*Eurya latifolia* is another useful plant which receives considerable attention. I am surprised that this does not find more favour; it is certainly very useful for decorations, and lasts well indoors. *Dracæna Bruantii*, *D. indivisa*, and *D. lineata* are grown in large quantities for the English and American trade. *Citrus sinensis* (the Otaheite

Orange) is also largely grown, and with a great amount of success, the plants seen in the autumn carrying a good number of fruits.

Aspidistras, both green and variegated, grow luxuriantly planted out in beds under glass. The light, well-manured soil that they are planted in is particularly favourable to the production of large leaves. Tuberous Begonias are also grown in countless numbers.

Mr. Petrick started a new nursery about twenty years ago, and has been making steady advance ever since, and now holds a most important position among the Belgian horticulturists. He is President of the Belgian Horticultural Association, member of the committee of the *Chambre Syndicale des Horticulteurs Belges*, and associated with other societies. Previous to starting in business Mr. Petrick spent some time in England, and it was while he was at the Royal Horticultural Society's Chiswick Gardens that we first knew him, and we have had the pleasure of meeting him in England many times since. He is now represented in this country by Mr. A. Hemsley.

Mr. Petrick has about twelve acres under cultivation, and sixty greenhouses, with about 75 square feet of glass. Every year about 80,000 Azalea indica are grown, of which about 15,000 are of larger sizes. The ordinary size as grown for market take three years to make good plants; they are grafted on stocks struck from cuttings. The cuttings are struck from November to February, and the grafting is done from May to September.

## BOOKS.

**England's National Flower.\***—The national flower of England—the Rose—has received the praise of a hundred authors, and pamphlet succeed pamphlet, written with the object of pressing home the claims that so beautiful a flower has upon the gardeners of all climes, hence the author has correctly described his work as "a book for all garden lovers." All who love their gardens must

\* "England's National Flower." By George Bunyard. Published by Messrs. George Bunyard and Co., Maidstone, and Simpkin, Marshall, and Co. Price 3s. 6d. net; post free, 3s. 9d.

love the Rose, too; for is it not the flower of flowers? and the garden full of Roses is the one filled with the warmest perfumes and daintiest colourings. Of late years the Rose has invaded the whole garden, and we can surely possess no flower that gives a longer season of blooming or has colours in greater variety. Mr. Bunyard first begins with a page of verses, in which Jupiter, Flora, and the Rose are concerned, and then passes to practical advice. The chapters are carefully divided, and apparently nothing has been omitted. There are notes upon "Position and Shelter," "Preparation of the Soil," "Planting and Pruning," "Bushes," "Standards," "Border Roses for a June Display," and the same for July, August, and September to November; "Massing in Beds," "Arches, Pillars, and Verandahs," "Bowers and Pergolas, Banks, Rocks, &c." for scent and for making pot-pourri, besides other phases of Rose culture. The selections of varieties have been made with commendable brevity, and it is precisely this part of the book that will probably appeal most strongly to the Rose grower, especially the beginner, who is often non-plussed when a string of varieties is printed as to the most

worthy for the garden. It is not a large book, numbering thirty-one pages, but there is a certain brightness about it wanting in many similar publications. The printing is clear, and the illustrations excellent, all having a distinct teaching value. Though the author has not attempted a serious work, there is much useful information in the book, and it should be a welcome guide to those who, in a clear and concise way, wish to know the most beautiful garden Roses available. Mr. Bunyard acknowledges his indebtedness to Mr. E. A. Bunyard for the photographs, and to Mr. Finlay Sanderson for arranging the notes and letterpress. Against each illustration quotations are given from the poets suitable to such a book. In referring to Roses for September to November, the author considers the following varieties the most certain, and in view of the forthcoming autumn exhibition of the National Rose Society this list may prove of some practical worth: Antoine Rivoire, Clara Watson, Mme. Abel Chatenay, Mme. Cadeau Ramey, Grüss an Teplitz, Lady Battersea, Liberty, Marquise Litta, Caroline Testout, Grand Duc de Luxembourg, Killarney, La France, Viscountess Folkestone, Admiral Dewey, Hélène Guillot, Perle von Godesberg, and Kaiserin Augusta Victoria. We are pleased to see that the author strongly advocates the earthing-up of Tea-scented Roses to prevent injury from winter frosts.

## THE KITCHEN GARDEN.

### PARSLEY.

PROBABLY there is no plant in the kitchen garden more in demand throughout the whole year than Parsley, and few subjects are more beautiful during summer and autumn than a bed of a good strain well grown. By far the best results are obtained by sowing the seed now in boxes and raising the plants in a gentle heat under glass. Sow thinly and gradually harden off, when the seedlings should be ready for planting out by the first week in April. Parsley is a deep-rooting subject, and revels in a rich, deeply tilled soil. The plants should be put out at a distance of 1 foot

apart all ways, and frequent applications of soot should be given. By this treatment a plentiful supply will be ensured by the middle of the summer and towards autumn. If the whole of the growth is closely cropped off it will put forth fresh leaves and become thoroughly hardened to stand ordinary winters. E. BECKETT.

## THE INDOOR GARDEN.

### WINTER-FLOWERING ACANTHADS.

**O**F late years we have certainly not made enough use of the many Acanthaceous plants that are so valuable for their winter-flowering qualities, the reason in many cases being the fact that they are often spoken of as greenhouse plants (a most elastic term), while they really need an intermediate temperature—that is, one takes the greenhouse standard as a structure for wintering Pelargoniums, Fuchsias, Heliotrope, Begonias, and many other plants that flower during the summer months. For the average run of these Acanthads a winter temperature of 55° to 65° is most suitable, though in the height of the summer they may be grown in outdoor frames without any fire-heat. Through all vicissitudes the most popular Acanthad for many years has been the delightful blue-flowered *Dædalacanthus nervosus*, far better known by the name of *Eranthemum pulchellum*. This is too well known to need any description, as its beautiful Gentine-blue flowers at once single it out when associated with other plants. A second species of *Dædalacanthus*, viz., *D. macrophyllus*, is less common than the preceding, but for all that it is a very desirable subject at this season of the year. The individual flowers are about 1½ inches long, curved in shape, and of a purplish mauve tint, the lower lobes being of a deeper hue. They are disposed in terminal branching racemes, from whence a succession of flowers is kept up for about a couple of months.

Of all the Acanthads the one that has attracted the most attention within the last two or three years is *Jacobinia chrysostephana*, not because it is a novelty, as it has been grown in this country for over thirty years, but because Messrs. Veitch have of late grown and exhibited it in such a way as to show what a really good thing it is. The rich golden orange hue of its blossoms, disposed as they are in terminal clusters, are seen to particular advantage on a dull winter's day. This plant was formerly known as *Cyrtanthera*, then as *Justicia*, before being finally relegated to *Jacobinia*. Two other well-known plants are now included in the same genus, viz., *J. giesbreghtiana*, formerly known as *Sericographis giesbreghtiana*, with long, tubular, bright crimson flowers; and *J. pauciflora*, well known as a winter-flowering plant under the name of *Libonia floribunda*. Two more species of *Jacobinia* yet remain to mention, *J. coccinea*, with terminal clusters of scarlet tubular-shaped flowers, and *J. magnifica carnea*, better known as *Justicia carnea*, whose large clusters of pink blossoms are very attractive at this season.

The genus *Justicia*, once so comprehensive, contains now but very few species, only one of which merits attention for its midwinter flowering qualities. This is *Justicia calycotricha*, known also as *Justicia flavicoma*, and *Schaueria calycotricha*. In this the flowers are, as in many of its allies, borne in terminal clusters. They are of a canary yellow colour, while the segments of the calyx are long and narrow, thus giving to a head of bloom an uncommon and fluffy appearance.

*Peristrophe speciosa*, formerly *Justicia speciosa*, is a compact plant, and for some time in the depth of winter quite a mass of bright purple blossoms; it is worth looking after by those who have to maintain a display of flowers at all seasons. A good companion to the above is *Strobilanthes isophyllus*, known at one time as *Goldfussia isophylla*, whose pale lavender flowers are borne in equal profusion to the last. The *Apelandras* are, taken altogether, among the brightest of Acanthads, but as a rule their season of blooming is not limited

to any particular period of the year. One of the best for winter blooming, or indeed for any season, is *A. nitens*, with stout, ovate, leathery leaves, olive-green on the upper surface, and purplish beneath; the flowers borne in a terminal spike, as in most of the others, are bright scarlet.

The *Eranthemums* are a very beautiful class of flowering plants, and of those that bloom during the winter may be especially mentioned *E. Andersoni*, which, as a rule, begins to flower in the autumn. It is an upright plant furnished somewhat sparingly with oblong-shaped leaves, while the flowers are borne in long, closely-packed terminal spikes. The individual flowers are very showy, being 1 inch across, and pure white, except the lower lobe or lip, which is freely blotched with rich purplish lake that is in strong contrast to the purity of the rest of the flower.

Another species now in bloom is *E. tuberculatum*, a little twiggly bush with numerous flowers, suggestive of a white *Bouvardia*; and *E. albiflorum*, whose terminal spikes are not unlike small sprays of white Lilac.

*Ruellia macrantha*, one of the largest flowers of this order, is just now very showy and valuable for decorative purposes. The flowers, which are borne singly from the axils of nearly every leaf towards the upper part of the stem, are individually somewhat trumpet-shaped, slightly curved, from 4 inches to 5 inches long, and about 3 inches across the expanded mouth. The colour is rosy purple, veined with deep crimson. The interior of the throat is much lighter than the expanded lobes, and the reticulation is there more clearly defined. A second species, *R. Herbsti*, is a pretty and interesting plant, but its ornamental qualities are not equal to those of the preceding. The flowers, which are borne in small panicles from the axils of the leaves, are much curved, about 3 inches long, and of a rosy purple hue, the expanded mouth being almost white. It was at one time known as *Dipteracanthus Herbsti*. In this review of a few Acanthads one cannot fail to be struck with the changes in nomenclature that have taken place in them from time to time. H. P.

## NOTES FROM THE MARKETS.

### COVENT GARDEN.

**A** FEW weeks ago proceedings were taken against several flower sellers for hawking without a licence. At one court fines were inflicted, and at another the magistrate refused to convict, and expressed himself surprised that the police should interfere with the flower sellers. If it was enforced that all flower sellers should have a licence, it would considerably reduce the number of flower buyers, especially in the French market. I was reminded of the above when in the French flower market on a recent Saturday. There was then quite a crowd of this class of buyers all anxious to invest a few shillings in flowers to sell in the streets at a small profit; and these sellers find most of their customers among those who could not afford to buy at the florists' shops.

The supply in the French market consists chiefly of Violets, Paper White Narcissi, Mimosa, Roses, Anemones, yellow Marguerites, and Ranunculus. There is also a good supply of "French Fern" (*Asplenium Adiantum nigrum*), also cut Myrtle, and Eucalyptus foliage. I find that this market is not quite confined to imported flowers, some English-grown produce being on sale. In the open market there is a large supply of hardy green stuff. In Ivy there is quite a variety, from the bunches of small bronzy leaves to long bundles of the ordinary trailing form; the long trails of the small-leaved are very pretty. The short, thick shoots of the Tree Ivy are also brought in large quantities. British Ferns in bunches, *Polystichum angulare*, *Polypodium vulgare*, and *Blechnum spicant* all being very plentiful.

During the past week there has been a little revival in trade. There was a considerable increase

in the supply of Daffodils, yellow doubles and singles, also bicolors; the *Polyanthus Narcissi* are also very plentiful. The pot *Chrysanthemums* are now nearly past, but the supply of cut flowers still holds out. Dutch bulbs, both in pots and cut, are now getting over-plentiful. Marguerites are still very good, but they are not seen in such large quantities as they were a few weeks ago. White flowers are very plentiful, and the Daffodils make up a good supply of yellow; but bright colours (red Tulips excepted) are very scarce. For years past so much attention has been given to all white flowers that it would now pay growers to turn their attention to colours. *Begonia Gloire de Lorraine* gives one very good colour, and if it can be put in water before it flags it lasts well. Red Roses were scarcely to be seen last week. One commission man refused an order, even though price was not limited. A week or two later may see a considerable change, but until we get the first crops of the forced General Jacqueminot red Roses will be valuable, and good English Carnations will keep up their price for some time to come yet.

*Chrysanthemums*.—We have not yet quite done with these. Mlle. Louise Charvet, which was shown by Messrs. Henderson and Sons of Elmburst-Nursery, Chessnut, and gained an award of merit at the Royal Horticultural Society's meeting on the 26th ult., deserved the honour. I had previously noted this variety in the market, where it has been selling well, making from 6s. per dozen blooms. It is not quite a new variety, having been introduced from the Continent a few years ago. I believe that it first came over from Lemoines, and we should probably have heard little of it if it had not fallen into the hands of a grower who is always on the look-out for useful sorts, and knows how to grow them when he has them. Blooms before me now are of a lovely shade, and, though they have been cut for several days, look as if they would last a long time.

*Winter Cheer*.—This is another splendid late variety which also gained an award of merit. It is a sport from Mme. Felix Perrin, and is of a very rich shade. I have seen it on the stands of Mr. Low of Uxbridge, who also has the parent in such fine form. The flowers of *Winter Cheer* are only of moderate size, but they are very attractive, and sell readily at 4s. per dozen blooms. There has been some criticism on the merits of Mme. F. Perrin and its varieties, but those who have seen them as they are sent to market cannot fail to recognise their value. *Framfield Pink*, as Mme. F. Perrin is called in the market, has no rival in the same shade of colour. *Heston White*, which has been so good in Messrs. Cragg, Harrison, and Cragg's stands, is quite as good and commands top price amongst white varieties. A. H.

## OBITUARY.

### MR. JAMES MACDONALD.

**M**ANY will hear with regret of the death of Mr. James MacDonald, which took place at 1, Stanhope Place, Edinburgh, on the 25th ult. He was for many years gardener at Murrayfield House, Edinburgh, and his length of service showed his abilities as a gardener and the esteem in which he was held by his employers. The funeral took place at North Merchiston on the 27th ult.

### MR. WILLIAM TOLMIE.

An old and respected Scottish gardener has passed away in the person of Mr. William Tolmie, Brook Street, Broughty Ferry. His death took place suddenly at the house of his son, Mr. James Tolmie, Newton Bank, St. Andrew's, on the 26th ult. Mr. Tolmie was seventy-seven years of age.

### MR. WILLIAM BROWN.

MR. WILLIAM BROWN, gardener to Dr. Bell, Mauricewood, Penicuik, Midlothian died at Mauricewood on the 26th ult.

## SOCIETIES.

## DULWICH CHRYSANTHEMUM SOCIETY.

At a special meeting of this society Mr. Percy Waterer read a most interesting and instructive paper on "Sweet Peas," in which, after dealing with the history of the flower, he referred to the great variety of colour and many other good qualities possessed by the improved forms introduced since Mr. Eckford first began to take interest in them in 1879, and a few years later Mr. Burpee. The lecturer dwelt on the necessity for a standard in form, for example, the bold, upright standard of Black Knight and the hooded standard and wings of Lady Grisell Hamilton. The double form was hardly desirable, but the Cupid and bush varieties will no doubt become popular. The importance of four flowers on a stem is over-estimated, as they are seldom evenly developed. Early planting is strongly advised, good root action being encouraged by cool weather, and deep trenching is important. It is doubtful if chag of soil is so important as is generally considered, but a change of seed is occasionally desirable. Natural manures are advised in preference to artificial, especially in a liquid state. After giving a list of desirable varieties, the lecturer suggested a selection of eighteen, consisting of Dorothy Eckford, Blanche Burpee, King Edward VII., Hon. Mrs. Kenyon, Prima Donna or Lovely, Coccinea, Navy Blue, Lady Grisell Hamilton, Black Knight, Dorothy Tennant, Miss Willmott, Lord Rosebery, Prince of Wales, Triumph, Prince Edward of York, Lord Kenyon, Salopian, and America. The lecturer proceeded to advise planting seeds in pots the first week in February, growing on and planting out after the first week in April.

The difficulty in Sweet Peas not always coming true is probably to be traced to incomplete fixing, as experiments showed that a variety often varied through difference of soil. It may also follow on the visit of a species of bee which is more prevalent now than formerly. The Sweet Pea has advantages and disadvantages in hybridising and crossing when compared with other plants, as, for instance, the Chrysanthemum. When once a variety has been fixed it is practically inexhaustible, but of course it cannot be produced by bud propagation. The lecturer carefully explained the difficult points in cultivation, and incited his hearers to endeavour, at any rate by selection, to improve the existing varieties as far as possible. Many difficulties which had presented themselves to members were satisfactorily settled, and a vote of thanks to Mr. Waterer and to the chairman, Mr. Humphreys, who was evidently an enthusiastic Sweet Pea grower, closed the proceedings.

## LEICESTER CHRYSANTHEMUM SOCIETY.

The annual meeting of this society was held at the Victoria Coffee House, on the 25th ult., when a goodly number of members attended. The seventeenth annual report proves that the society is in a flourishing condition, competition in the various classes increasing year by year. Owing to the general trade depression there was a considerable falling off in the takings at the doors during the last exhibition, which had the result of producing a deficit of £1 0s. 7d on the year's workings. But fortunately the society is in such a sound financial condition that this will scarcely be felt. To commence the year 1904 the treasurer has a substantial balance in hand of £65 19s. 6d. The newly-appointed secretary is Mr. H. P. Appleton, Countesthorpe Road, Aylestone, Leicester.

## NATIONAL CHRYSANTHEMUM SOCIETY.

The annual general meeting of this society was held on Monday last, the 1st inst., at Carr's Restaurant, Strand. Mr. Charles E. Shea presided, and there was an attendance of about fifty, including Messrs. C. Harman Payne, R. Moorman, W. Howe, T. Bevan, Norman Davis, J. McKeerchar, J. H. Whitty, H. J. Jones, R. Dean (secretary), and others.

The secretary read the notice convening the meeting, the minutes of the last general meeting, letters of regret from Mr. D. B. Crane, Mr. S. Mortimer, and Mr. Cordwell, and the following annual general report and balance sheet:

## REPORT OF THE COMMITTEE.

The committee, in presenting their annual report for 1903, do so with some degree of gratification, having regard to the altered circumstances of the society at the commencement of the year, owing to the closing of the Royal Aquarium, which entailed the necessity of seeking a new building in which to hold the society's exhibitions. Under the circumstances, some amount of depression was naturally experienced. Happily, arrangements were made with the Crystal Palace Company, whereby the three exhibitions annually held at the Royal Aquarium could take place at Sydenham. Though owing to a diminished revenue the schedule of prizes had to be modified in the direction of reduction; and though, also, the generally adverse character of the weather during the season of bloom was hostile to full development, yet the exhibitions were, on the whole, decidedly creditable to the society, the trade generously contributing miscellaneous exhibits of a high order of merit. At each exhibition, entries had unfortunately to be withdrawn, owing to the prevailing atmospheric conditions seriously affecting the permanence of the blooms; and these withdrawals materially affected the large exhibition held in November. The effect of the display made on that occasion was distinctly lessened from the fact that the space placed at the disposal of the committee was far too contracted, by reason of other exhibitions occupying a considerable portion of the building. A promise has been made that this defect will be remedied in the future. The executive of the Crystal Palace Company made the best arrangements they could under the circumstances, and your committee are under an especial debt of obligation to Mr. George Caselton, the superintendent, for his most valuable help in many ways.

The floral committee held six meetings during the year—three at the Crystal Palace and three at the Essex Hall, the

suitability of the last-named place being acknowledged by committee and exhibitors alike. Nineteen first-class certificates of merit were awarded. Arrangements have been made for continuing the meetings of the floral committee at Essex Hall in the present year. The classification committee have also held meetings, and the results of their labours will appear in the annual report. A catalogue was issued during the past year, and will be supplemented by carefully prepared lists which are to appear in the annual report. The audit of blooms shown at the November exhibitions has been prepared by Mr. A. Taylor, and will be published in the annual report, together with a census of the varieties exhibited, prepared by Mr. C. A. Young.

The annual outing of the society took place in July last, a party of 207 persons spending a delightful day at Park Place, Henley-on-Thames, by the kind permission of Mrs. Noble. The arrangements made by the secretary were much appreciated. The warmest thanks of the committee have been given to Mrs. Noble for her ready acquiescence in the requests of the committee. The annual dinner, at which the president occupied the chair, was held on November 25, a goodly number of members and friends being present. Messrs. W. Cuthbush and Son, Highgate Nurseries, generously contributed plants for the decoration of the hall, and other friends contributed fruit for dessert and flowers for the decoration of the tables. A deputation from the committee attended the exhibition of the French National Chrysanthemum Society at Lille during November, and were most hospitably entertained. The report of the deputation will appear with the schedule of prizes. The financial position of the society continues satisfactory; there is a balance in hand of £69 9s. 11d., with liabilities amounting to £5 9s. The sum of £4 7s. 6d. has been paid during 1903 on account of 1904. The reserve fund amounts to £115 15s. 11d., £100 on this being on deposit. The committee regret the loss, by death, of Mr. E. J. Bentley, who subscribed annually to this fund. Special prizes were given by the president, who continues his special first prize of £5 5s. in 1904; by Messrs. Mackenzie and Moncur, Messrs. E. Webb and Sons, Mr. G. H. Richards, Mr. W. J. Godfrey, Mr. H. J. Jones, and Mr. Robert Sydenham, all of which proved very helpful. Mr. P. Waterer's silver cups were won outright, and are now the property of the winners.

Four officers, acting as a deputation from the committee, have interviewed the general manager of the Crystal Palace Company in respect of the arrangements for 1904; the company are willing to allow space for three exhibitions, as in 1903, and there is reason to believe that the sum given for the November show will be augmented in the present year. It is also hoped that some arrangement may be come to with the Crystal Palace Company by which cheap railway and admission tickets may be provided for members and exhibitors. Should such an arrangement be made, a special circular will be issued to members and exhibitors setting forth these advantages, and giving, as far as possible, the times of departure of trains from London. The matter of entrance fees will be considered, and on the recommendation of the finance sub-committee, the sum of £50 will be added to the November schedule of prizes; a considerable number of new special prizes will also be added. It is the intention of the officers to seek the co-operation of the secretary and manager of the Crystal Palace in endeavouring to secure better facilities for the conveyance of exhibits to and from the Palace. The suggestion that an exhibition of market Chrysanthemums be held shortly before Christmas is referred to the schedule revision sub-committee for consideration and report. The present number of societies in affiliation is 125; a few have ceased to exist owing to lack of local support. The present number of members is 631, viz., 75 Fellows and 556 ordinary members, in addition to the foreign subscribers. An increase in the membership of the society is urgently needed. Your committee give their hearty thanks to Mr. C. E. Shea for accepting the office of president, for his special first prize, and for presiding at the annual dinner; also to other donors of special prizes; they also beg to acknowledge their indebtedness to the auditors, Messrs. G. J. Ingram and R. Cordwell, for auditing the accounts of the society.

Mr. Norman Davis proposed and Mr. H. J. Jones seconded the adoption of the report, which was carried unanimously. The secretary said that the Ichthemic Guano Company and Mr. Seward of Hanwell had offered special prizes, and that £12 given by the Crystal Palace Company might go as the first prize in the vase class. Mr. Taylor proposed and Mr. Foster seconded a vote of thanks to the auditors.

Messrs. Kyberg and Lake were elected scrutineers, and Mr. Lake was elected as an auditor in place of Mr. G. J. Ingram (resigned), and Mr. J. W. Moorman was elected an honorary Fellow of the society.

The secretary then read the names of six proposed new members, four paying 5s. and two paying 10s. 6d. These were all elected.

Mr. Dean proposed that the Wanstead and District Chrysanthemum Society be elected to affiliation. This was seconded and carried unanimously.

It was stated that 110 donations of 5s. had been promised for the best blooms of each of 110 different varieties. The chairman and many others thought that the judging of these would be a matter of difficulty.

There was some discussion about an exhibition of market Chrysanthemums which should be held about ten days before Christmas, and the Essex Hall was suggested as the place. Mr. Harrison said he thought such an exhibition would be excellent and welcomed by market growers. He thought it should be held earlier in December, as market growers were too busy so near Christmas.

Mr. H. J. Jones thought that early in December would be more suitable to the market growers, and finally the market growers voted December 14 to be the best date.

The following were elected to fill the fifteen vacancies on the committee. The respective number of votes is given with each candidate: W. Howe, 56; R. C. Pulling, 55; E. F. Such, 54; T. L. Turk, 52; J. T. Simpson, 51; A. E. Stubbs, 48; J. W. Moorman, 46; F. Gilks, 44; George Cuthbert, jun., 43; J. B. Linford, 43; T. Smith, 37; F. G.

Oliver, 37; G. Gover, 33; W. B. Shearn, 32; H. T. Wooderson, 30. A vote of thanks to the scrutineers was passed unanimously.

Mr. C. Harman Payne said that the National Chrysanthemum Society was to be represented on the committee of the Jubilee Exhibition of the Piedmont Horticultural Society. As already announced in THE GARDEN, the committee are particularly anxious to have exhibits of garden implements.

The usual votes of thanks terminated the meeting.

## CROYDON HORTICULTURAL SOCIETY.

AN excellent attendance of members assembled at the society's rooms, George Street, on Tuesday, the 19th ult., when the first of the new series of papers for the coming year was read by Mr. H. J. Jones, Ryecroft Nurseries, Lewisham, who took for his subject "Chrysanthemums," and for upwards of two hours he described in detail the cultivation of this popular flower. Mr. Jones is well known in the horticultural world as an expert, and his reputation as a grower was sufficient to create a lively interest in those present, who listened with great attention to his remarks, so that when his paper was concluded the applause of appreciation was unanimous. His opening remarks were on the propagation, recommending boxes for this purpose as being preferable to pots. The cuttings should be struck about December and January in slight heat, giving plenty of light; in fact, right throughout his paper the one essential thing he emphasised to secure good plants was plenty of light at all stages of growth. Passing on to the repotting, this should be done when the plants are ready, and though February and March are good months for this operation, yet no fixed dates can be laid down, but simply governed by the plants themselves. The best compost for this purpose, and also that required for each shift, he recommended, together with the different sizes of pots for each repotting. The plants should be gradually hardened off for placing outdoors about the first and second weeks in April, and the final potting off should be completed by the end of June. Due regard was paid to the drainage, and the all-important treatment of watering; also the application of stimulants by means of artificial manures were dwelt upon. The disbud operation received explicit instructions, and his concluding remarks were on the removal of plants to the houses, and antidotes to the many diseases and insect pests prevalent to these plants. From first to last he advised that to secure good blooms for decoration or exhibition the grower must give attention to the smallest details. Time would only allow a short discussion, and what questions were asked Mr. Jones replied to clearly.

Mr. W. Torney, Station Road Nurseries, Croydon, staged well-grown Primulas, and Mr. P. F. Bunyard exhibited a new plant label, the "Eclipse." Several new members were elected.

## LONDON DAHLIA UNION.

THE annual meeting of the subscribers to the union took place at the Hotel Windsor on the 26th ult., Mr. John Green, chairman of the committee, presiding over a good attendance. The minutes of the last meeting having been read, a financial statement, duly audited, was submitted by the secretary, Mr. R. Dean, which showed that the receipts from all sources amounted to £58 8s. 6d., and the expenditure to £58 6s. 1d.; but since the accounts were made up and audited an additional sum in the form of unpaid subscriptions had been received, showing a balance in hand of £2 10s. In moving the adoption of the report, the chairman congratulated the subscribers upon the very fine exhibition held at Earl's Court in September last, and said that the authorities at Earl's Court had already been approached as to arrangements for holding another exhibition there in September next, which they were desirous of taking on again. The chairman pointed out that almost without an exception the supporters of the union were members of the National Dahlia Society, and their object in holding a show was to afford an opportunity for the new Cactus Dahlias to be exhibited when they were in their best character. There was no thought or intention of antagonism to the National Dahlia Society, the president and secretary of the latter giving a cordial support to the union. The balance sheet was adopted. The secretary read a long list of names who had promised support to the exhibition in the present year. Mr. John Green was re-elected chairman and Mr. R. Dean secretary. Several special prizes were announced, and the chairman made the gratifying statement that a gentleman of position in the horticultural world had been approached with a view to becoming president of the union with much prospect of success.

The arrangements for the 1904 exhibition were left in the hands of the chairman and secretary, and the proceedings closed with a vote of thanks to the chairman for presiding and to the secretary for his services.

## LIVERPOOL HORTICULTURAL.

THE twenty-fifth annual meeting of the above was held on Saturday last at the society's office, Victoria Street, Liverpool, when Mr. T. Foster presided over a limited attendance. Mr. Harold Sadler read the annual report, which shows a considerable falling off compared with the previous year. The admissions to the spring show were, by ticket 1,707, and by payment 312; at the autumn exhibition, 1,481 by ticket and 1,299 by payment, the total being 4,889, against 6,854 for 1902. The best thanks of the association were tendered to the following for special prizes, Messrs. Thomas Davies and Co., Messrs. John Cowan and Co., Mr. H. Middlehurst, Mr. W. Rowlands, the Boundary Chemical Company, and Mr. Harold Sadler; also to the nurserymen who arranged various beautiful groups not for competition.

The statement of accounts submitted by the sub-treasurer gives the income of the spring show £32 1s. 3d., autumn show £84 1s., subscriptions £325 11s., bank interest and advertisements £20 13s. 7d. The expenditure included £173 17s. 6d. for the spring show, £265 11s. 7d. for the autumn, and £83 11s. 1d. general account, leaving a balance

in favour of the society of £195 10s. 10d., against £253 4s. 2d. at the beginning of the year. The loss is accounted for to some extent by the fact that St. George's Hall was not available for the Chrysanthemum show, which was held at the Drill Hall, Edge Lane, and although the entry of exhibits proved a second one, the attendance was much below the average. The usual donations of three and two guineas were voted to the Gardeners' Royal Benevolent Institution and the Gardeners' Orphan Fund respectively. It was arranged that the society should hold a spring and autumn exhibition during the ensuing year. The election of officers resulted as follows: President, the Right Hon. the Lord Mayor of Liverpool; treasurer, Mr. W. F. Rogers; sub-treasurer, Mr. G. Blackmore; secretary, Mr. Harold Sadler. A vote of thanks to the chairman concluded the proceedings.

#### TAYPORT HORTICULTURAL ASSOCIATION.

The annual meeting of this association was held on the 25th ult., when a satisfactory report of the finances and condition of the society was submitted. In addition to a working committee, the following office-bearers were appointed: President, Mr. James Donaldson; secretary, Mr. Alexander Melville; treasurer, Mr. A. Robertson; chairman of working committee, Mr. W. Dowie.

#### CARDIFF GARDENERS' ASSOCIATION.

A MEETING took place at the Grand Hotel on the 26th ult., Mr. H. E. Farmer in the chair, and Mr. E. W. Davy delivered a lecture entitled "Orchids." At the outset he dealt largely with the history and quotations by various authors; also upon the adventures of collectors in various parts of the world, and defining in general the natural habitat of the various species, and strongly advised cultivators to adopt those principles in this country as far as practicable. The lecture was so much appreciated that Mr. Davy was asked to repeat it at another date to be arranged for that purpose. By way of illustrations the lecturer had brought fifty hand-painted sheets representing the various types of orchids. The best thanks of the association were accorded Mr. Davy.

#### URR AND DALBEATTIE HORTICULTURAL SOCIETY.

THE annual meeting of this society was held in the Town Hall, Dalbeattie, N.B., a few days ago. Mr. A. Tait, Spottes Gardens, presided over a good attendance. Mr. Q. Aird, secretary and treasurer, presented a favourable report, which showed a moderate balance to the credit of the society. The following office-bearers were appointed: President, Rev. David Frew, Urr Manse; vice-presidents, Mr. A. Tait, The Gardens, Spottes, and Mr. John Jack, Dalbeattie; secretaries and treasurer, Mr. Q. Aird, Mr. Slater, and Mr. J. Turner. The prize list was revised, and preliminary arrangements made for the show which is to be held in Dalbeattie on August 13.

#### LOCHEE (DUNDEE) HORTICULTURAL SOCIETY.

A VERY successful social festival—an annual event—took place, under the management of this society, in the United Free Church Hall, on January 29, when there was a crowded attendance, every seat being occupied. The chair was occupied by ex-Bailie Macdonald, the president of the Dundee Horticultural Society, who fulfilled his duties admirably. The principal feature of the programme was of a musical nature, and, as the artists all acquitted themselves well, the audience enjoyed themselves thoroughly. The prospects of the society for the coming year are highly promising.

#### FELTHAM, BEDFORD, AND HANWORTH HORTICULTURAL SOCIETY.

AS a result of a course of six letters given by Mr. J. Weathers, Middlesex County Council Horticultural lecturer, the above society has been formed. The efforts have so far been very successful, and there are already fifty members.

#### SYLLABUS FOR 1904.

February 10, "Ferns," Mr. Spencer; February 17, "Primulas," Mr. Hinton; February 24, "Some Gardens I Have Visited," Mr. J. Gregory; March 1, "Carnations," Mr. Buckley; March 9, "Narcissi," Mr. Mercer; March 16, "Shrubs," Mr. Hinton; March 23, "Wild Flowers," Mr. Dobin.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Heating conservatory** (W. S. W.).—There must be something wrong with the stove, and we fear some of the smoke escapes into the house. Do you "fire" too hard? If so that would account for the dry heat. Standing the plants upon tan, which must be kept moist, would be useful, and also frequent syringing, but that cannot be carried out at

all seasons. We should be inclined to think that you keep up too large a fire. The tan would not smell disagreeable. We should like a few more particulars about the stove—how it is fixed, and so on.

**Cyclamen culture** (WALES).—It is rather late now for sowing seed of greenhouse Cyclamen. August is the best month to do this. An exhaustive article on Cyclamen culture appeared recently in THE GARDEN, which you would do well to read.

**Melon culture** (H. WILSON).—Yes, seeds may be sown now in a warm house. Keep them near the glass and put two seeds in each small pot; if both germinate retain the stronger seedling only. When fairly well rooted in the small pots, plant out in a bed of loam upon a hot-bed. Further particulars will shortly be given in THE GARDEN.

**Shrubs for shaded ground** (K. L. M.).—The quarter of an acre of land is evidently very unfavourably placed, but the following shrubs would succeed, and in some cases flower, while the berries would make the place bright in autumn and winter, as well as provide food for the birds. As you desire Lilacs and Laburnums, you might try a few of each. If small seedling plants are put out they would in time hold their own. The Japanese and Scotch Roses associated with the wild Dog Rose and Sweet Briars would succeed well. Other useful shrubs are the Mountain Ash, Mahonia, Blackthorn, Barberry, Rubus laciniatus, Cotoneaster, Periwinkles, with Ivies.

**Rose Liberty in winter** (J. C. DAWKINS).—This splendid and brilliant Rose has now fully established itself as the best crimson for winter blooming. We may, perhaps, wish that its blossoms were larger, but much can be done to remedy this by judicious pruning. If long-stemmed, good quality flowers are desired then one must prune hard. Fewer flowers will result, but the quality will be much superior. If the variety be planted out plant rather close so as to allow of this hard pruning, or if in pots then provide more plants so that the yield is well maintained. Bone-meal is a great factor in the production of good quality of blossom in this and in most forced Roses, supplemented by liquid manure at intervals. Mildew is now so completely mastered by the use of the Sulphur Vaporiser now on the market that this one-time dreaded fungus has now no terrors. Most of the large growers of Roses for market are now using these vaporisers.

**The Butcher's Broom** (B.).—Formerly the genus *Ruscus*, to which the Butcher's Broom belongs, was more comprehensive than it is now, for the Alexandrian Laurel, so long known as *Ruscus racemosus*, and that vigorous greenhouse climber grown under the name of *Ruscus androgynus*, are now placed in separate genera. By far the best-known member of the family is the Butcher's Broom (*Ruscus aculeatus*), of which a fruiting spray was recently illustrated in THE GARDEN. It is a native of Britain, and takes its popular name from the fact that the shoots were at one time tied in bundles and used by butchers for sweeping their blocks. The foliage, or, rather, cladodes, for they are not true leaves, are dark green, and strictly evergreen, and serve admirably as a setting to the bright red berries, which in some districts are borne far more freely than in others. From the planter's point of view the great value of the Butcher's Broom is that it will thrive in shady spots and under the drip of trees, conditions that suit few other shrubs. There is a variety (*angustifolius*) in which the cladodes are narrower than in the ordinary form. *R. hypoglossum*, with oblong-shaped cladodes 3 inches to 4 inches long, is remarkable from the fact that a small leaf-like one is produced from the centre of each large cladode. The entire plant, as a rule, only attains 1 foot to 18 inches high. Like the preceding one, it will grow well in shade. *R. hypophyllum*, of much the same height as the last, and with broad cladodes, on the under sides of which the flowers are borne. The berries are red when ripe, as in the others. This is a native of the Mediterranean region, and has been long known in this country.

**Danae Laurus** (B.).—This was formerly named *Ruscus racemosus*, known as the Alexandrian Laurel, and is an ornamental little shrub. It is altogether more graceful than the Butcher's Broom, and its slender shoots reach a height of 3 feet to 4 feet. The cladodes are about a couple of inches long, and of a deep shining green. An established clump presents much the appearance of a Bamboo of small growth. It succeeds best in a partially shaded position, and looks bright throughout winter. At that season its slender shoots are valuable in a cut state for indoor decoration, under which conditions they remain fresh and bright a long time.

**Arrangement of Rose beds** (H. M.).—If two of the beds on one side are devoted to Mme. Laurette Messimy and Mme. Eugene Resal respectively, and the arch between these is to be clothed with William Allen Richardson, we think it would be a mistake to use any crimson Roses such as Fabvier and Longworth Rambler as you suggest on the opposite side of this small Rose garden. For the other arch we should most certainly employ Alister Stella Gray, which is quite the loveliest and most satisfactory variety for this purpose. As regards the two remaining beds, Jean Bach Sisley and the pink Monthly would be a beautiful combination and almost approximate in growth. Another lovely China Rose which you might use in place of the old Monthly is Mme. H. Montefiore. This grows quite as well as Mme. Laurette Messimy, and though its buds and flowers are very small they are of exquisite shape and beauty. The colour is salmon-yellow, shaded with apricot and carmine; the foliage is very pretty, and the plant a free and continuous bloomer. We ought to warn you that two Roses have been sent out under this name, and that the one we are referring to was raised by A. Bernaix of Villenarbane, near Lyons, France. The other variety distributed under this name is a Hybrid Tea of no value, sent out by Messrs. Soutper and Notting in 1890. As regards the hedge of perpetual-flowering Roses we should only use one variety. You could not do better than select Bonquet d'Or, which, taking everything into consideration, is the best of the Dijon Teas for this purpose. Next to this we should select Reine Olga de Wurtemberg,

because of the fact that it is evergreen and thus provides good shelter. It makes a good hedge, but is not so suitable as the first-named nor so free in autumn. The four arches going through this hedge should look very pretty, and we should recommend you to use François Crousse, Mme. Alfred Carriere, Dorothy Perkins, and Noella Nabonnand for these. All are perpetual except Dorothy Perkins, but this is late-flowering and of such lasting character—besides being the perfection of a climbing Rose—that you could not possibly afford to leave it out. François Crousse and Noella Nabonnand are both superb additions, and we fancy that they will prove pretty hardy. With us they have made splendid growth. We should most certainly prune the newly-planted hedge of rugosa Conrad F. Meyer very hard this spring. All strong-growing Roses intended to form pillars, hedges, climbers, &c., should be pruned very hard the first season after planting. The reason is that in transplanting these Roses it is quite impossible to prevent their roots being shortened and damaged, and before they can thoroughly recover themselves from this check they have to replace those small fibrous roots which are the ones that generally suffer. But if last season's growth is left intact this cannot take place, because the balance between root growth and stem growth is unequal. In fact, the Roses are partially disabled by producing flowers and sustaining growth disproportionate to the strength of their roots, and often enough a whole season is lost in this way, and the nurseryman who supplied the plants gets the blame.

**Shrubs for lake margin** (A. E.).—There are no flowering shrubs that we can recommend for such a position indeed, the only plants of a shrubby character likely to succeed are Willows. One of the best, from a foliage point of view, is the Rosemary-leaved, while the Cardinal Willow and the Golden Willow are remarkable for their bright-coloured bark, that of the Cardinal being red and the other yellow. All of these should be cut back each year before growth recommences, as it is the young shoots only that are so brightly coloured. Of shrubs that thrive where so situated that their roots have access to water, but at the same time are not entirely covered, may be mentioned Berberis Darwini, B. Thunbergii, Cornus alba and its varieties, Dog Roses, double-flowered Bramble, Spiraea Douglasi, Tamarisk, and Guelder Rose. You might throw up a mound clear of the water and plant the above thereon. Of herbaceous plants that would thrive in boggy soils we can recommend the Sweet Flag Water Plantain, Arundo donax, Butomus umbellatus, Caltha palustris, Iris Kempferi and pseudo-acorus, Osmunda regalis, Spiraea of sorts, particularly *S. aruncus* and *S. gigantea* (*Kmschatica*), with the stately Eulrush (*Typha latifolia*).

**Seeds in a frame** (MEDICUS).—Whilst all the various vegetable seeds you name will, if properly sown, germinate in a cold frame, most certainly quicker and better growth will result if you have a manure bed which creates some warmth. Growth, too, will be slow until the sun attains to greater strength about the end of March. Of course, something would depend also on the general condition of the weather and temperature. If you can have a manure bed, collect all the stable manure you can and put it into a heap, having first shaken out from it all the long straw. If it takes you several days, or perhaps a fortnight, to collect enough manure, you must keep the heap turned every five or six days to prevent its heating. You must also keep it fairly dry, as, if once saturated and chilled by rain, the heat will be gone entirely. The quantity of manure required would depend upon the size of your frame, and should be sufficient to build up a solid, well-trodden bed 15 inches deep in front and 18 inches behind, also be all round 6 inches broader than is the frame. A single-light frame would for that purpose need a good cartload of manure, and a double-light one, of course, much more. It is important that the heap, until enough to make a proper bed is collected, should be often turned and mixed; also, if apparently dry, be lightly moistened with water. By keeping the manure from fermenting in the heap, though it will get warm, the heat it contains is preserved, and when the bed is made up, the frame put on, and soil put into it, the heat generated is milder and far more enduring. A bed quickly made gives a violent heat; then all is soon over. If you sow your seeds on the soil you must fill up to within 6 inches of the glass. If you sow in shallow boxes or pans you can fill up the frame one-half its depth with ashea, and on those stand the boxes. In no case sow thickly, and just cover the seeds. Sow lawn grass seed in moderately dry weather early in April, well rolling it in.

### QUESTION.

**The best market Chrysanthemums.**—Will some reader of THE GARDEN kindly state which are the twelve best varieties of Chrysanthemums to grow for market?—T. S. W.

### GARDENING APPOINTMENT.

MR. HENRY LOW, late foreman under Mr. Robert Glen, gardener to J. H. N. Graham, Esq., Ladbroke House, Stirling-shire, has been appointed gardener to Lady Fowler, Braymore, Ulthapool, N.B.

### PUBLICATIONS RECEIVED.

"The Principles of Gardening in Australia," by C. Bogue-Luffman; "Laws," by Sutton and Sons; "Index Seminum in Hortis Musei Parisiensis," "Les Roses," and "Journal of the Department of Agriculture of Victoria," etc.

### CATALOGUES RECEIVED.

*Flower and Vegetable Seeds.*—Messrs. Thompson and Morgan, Ipswich.

\*\* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

# THE GARDEN

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[FEBRUARY 13, 1904.

## ROYAL HORTICULTURAL SOCIETY.

THE annual meeting of this society, held on Tuesday last at the Drill Hall, was a memorable one. It occurred in the centenary year, and is the forerunner of several events which will mark a great epoch in the life of this historic and flourishing society for the promotion of horticulture. The meeting was presided over by the president, Sir Trevor Lawrence, Bart., whom we never knew to be absent from these annual gatherings, and the majority of the council were present. There is little to record beyond what has already appeared in *THE GARDEN*. The meeting was peaceful, and, with the exception of the question of raising the subscription to two guineas, without incident. In 1804 the Royal Horticultural Society was established at Hatchard's, the bookseller's, in Piccadilly. The house is still standing, and it is interesting to compare the position of the society now and then, and to think of the vicissitudes through which it has passed. To-day it is strong, and gaining strength year by year, with the prospect of a new home in the Horticultural Hall next June and the opening of the garden at Wisley. And this has been accomplished by simply sticking to horticulture, making it solely a "gardening" society in the most liberal sense of the word. When a society steps outside its legitimate sphere and caters for the lighter pleasures of the people, it loses its influence and degenerates into an organisation which no one can understand. This was the source of trouble at South Kensington, and will happen again if future councils alter the policy that has been adopted with such signal success since the Rev. W. Wilks became the secretary and made Horticulture the watchword. The society never had so large a surplus as last year, when the sum was £3,641; in January of the present year subscriptions amounted to £5,757. The present financial position was clearly explained by Mr. Gurney Fowler, the treasurer. Sir Trevor Lawrence, in reply to a question asked by Mr. Elwes, stated that the invested funds of £17,500 would not be touched for the purposes of extinguishing the sum of £15,000 still required to relieve the Hall of debt, but it was hoped that before the opening day a large part of this amount would be raised.

Mr. Elwes also recommended that the Journal be charged extra to the Fellows;

the answer to this naturally was that many subscribed to the society simply for the purpose of these valuable quarterly volumes, but Sir Trevor hoped that those who were indifferent about the Journal would kindly say so, and in this way help towards reducing the expenses entailed in its production. Mr. Gurney Fowler gave the following information regarding the new Hall Fund: Donations received, £22,561; interest on temporary investments, £451; and promised subscriptions, £2,113; which made a grand total of £25,125. The sum of £12,124 has been spent, and the balance in hand is £10,888, excluding the promised subscriptions. This leaves a balance of £12,001 to meet present liabilities. The contracts were £34,780, of which £10,379 has been already paid. The balance to pay is £24,401. Towards this there is a sum of £13,001, therefore the deficit is £11,400. It is proposed to raise a loan at the bank with the investments as a security until the subscriptions come in, or if necessary get a mortgage from an insurance company to be met out of annual surplus; it is satisfactory to know that in January of this year over £1,500 was subscribed.

We mention this to make it quite clear that, although the total sum required has not been subscribed, there are strong hopes that this happy state of affairs will not be delayed many months. The Fellows should make a determined effort to collect this sum before the new Hall is opened, and relieve the council, who have worked loyally and unselfishly to mark the centenary year in a way future generations can never forget. With regard to the Wisley garden no strong appeal was made for funds, and this is wise until the new Hall has been paid for; but we may remind those who have not subscribed to the Hall—for the reason that they considered a new garden a better way of marking the centenary—that the secretary will be quite willing to receive subscriptions towards its lay-out and upkeep. Those who wanted the garden have an opportunity of giving practical effect to their desire; the garden has been *given*, but money is wanted to establish the great horticultural work we expect to see carried out in those sixty acres. Sir Trevor Lawrence said that the surrender of the Chiswick lease would realise the sum of £5,000, and this is to go to the Wisley garden expenses.

The event of the afternoon was the question of doubling the annual subscription. This would have been hotly and rightly opposed, for the good reason that country members have

few opportunities of visiting the fortnightly meetings and the large shows. An amendment was proposed by Mr. H. J. Veitch to the effect that a charge of one guinea entrance fee be made, except to Fellows paying two guineas and four guineas, and in the case of *bona-fide* gardeners and Fellows residing abroad; this was carried unanimously.

No one can grumble that an unjust change has been made in adopting the system of almost every club and society in the world. A Fellowship carries no distinction. A man who is ignorant of the commonest wild flowers may be an F.R.H.S., and to improve his faint horticultural knowledge by joining the society is worth the initial subscription, for after all we want the general public as well as the more professional element. The Royal Horticultural Society is a teaching society, and its affairs are never likely to be ruled over except by men of experience. The list of the members of the various committees shows how earnest a band of workers is guiding the society and encouraging gardening at home and abroad.

## KEW AND THE ROYAL HORTICULTURAL SOCIETY.

I OBSERVE that you state in *THE GARDEN* of the 6th inst. that "it has been whispered, though perhaps there may be no truth in it, that the formation of a scientific department at Wisley will be hotly opposed, in the belief that all work of this character should be carried on at Kew." Certainly, as far as I am concerned, and I do not know who else has a right to express an opinion in the matter, there is no truth in it. And you are only stating a plain fact when you "cannot think that a scientific department at Wisley will cause the slightest jealousy at Kew."

There never was a time when as a nation we stood more in need of the aid which science can give to industrial effort. The intensive cultivation of the land has fallen behind an attainable standard. The policy of Kew, working under the Board of Agriculture and Fisheries, far from attempting to centralise research in one establishment, or even in the neighbourhood of London, has consistently aimed at encouraging it in as many centres as possible.

Personally, I should like to see a horticultural Rothamsted. The munificence of Sir John Lawes endowed agriculture with £100,000; where shall we find the man who will do something comparable for horticulture?

Having stated my official views, I may be permitted to speak in my private capacity as

one deeply interested in the welfare of the Royal Horticultural Society, to which three generations of my family have supplied Fellows. I have never wavered in the opinion that the provision of a suitable hall, offices, and library is absolutely indispensable to the society's continued existence and prosperity. In my judgment it would be wise to dispose of that before embarking on a new enterprise. If the society is to create "a scientific department" it must be organised on an efficient basis, and animated by a far more vigorous and intelligent spirit than has for many years been pursued at Chiswick. The suggestion that has been made of providing a log hut with a microscope and an expert at £300 is hopelessly inadequate. I must also be permitted to have my own opinion as to whether Wisley from position and soil is the place best suited for the proposed horticultural station.

*Kew.* W. T. THISELTON-DYER.

## RIVIERA NOTES.

OLD-FASHIONED gardeners like myself are apt to rebel against the constant changes in the names of plants, so often as it seems without adequate reason. Why, I wonder, is that fine shrub or tree *Senecio Ghiesbreghtii* or *arborescens* now called *grandifolius* when there is already and for many years the well-known *S. macrophyllus*, now distinguished only by a difference in tongue and not in name? To those accustomed to see this grand and massive tree-like shrub growing in the open and glowing with enormous flower-heads it is astonishing to hear it is best grown annually from cuttings! Like the *Poinsettia*, it does make a decent show with one head on one stem, but I hope those who have room will plant it out and see what it can then do. I think no one will regret it, and the long continuance of subsidiary flower-heads is another reason for so doing.

The early *Narcissus intermedius* (*Tazetta*) is always delightful at this season. I suppose it must have some of the tenderness of the Paper White *Narcissus* in its constitution, or it must long ago have been in every English garden, where it would flower as early as the ever-welcome *N. pallidus præcox*, which loves the shade and shelter of Bamboo clumps as much as *N. intermedius* loves a dry, sunny bank among the Aloe suckers. *N. intermedius*, however, is quite able to take care of itself anywhere, while the dainty and delicate *N. pallidus præcox* will only grow where it has shade, shelter, and undisturbed possession of its own particular nook. The very plant for the careful amateur.

What a curious similarity there is sometimes between different plants was brought to my notice the other day by a visitor, who exclaimed on seeing a bush of the pretty Cape shrub *Diplopappus fruticosus*, now in full flower, "What a delightful *Michaelmas Daisy* bush you have there, and why don't we grow it in England?" The reason is not far to seek, for pretty as it is, it is no prettier than most *Asters*, and it requires a drier air and warmer climate than England affords, while as a pot plant it is apt to be straggly, as is also the bright yellow *Senecio pinnifolius*, which flowers with it and enjoys the same conditions.

*Lachenalia pendula aureliana* is certainly a very fine thing, and should be taken care of by those who possess it. A clump or two of it among white *Primulas* is a thing to remark on wherever it may be, and its habit of flowering in January before the very earliest *Tulips* are

out makes its colouring the more noticeable. It is quite unaffected by any bad weather here during the last two years, and seems a plant really worth growing.

Each winter I think I admire more and more the continual flowering of *Illicium anisatum*. Its starry heads of slightly fragrant white flowers, its bright Apple-green leaves, with red-barked, arching stems, make it most attractive in a damp and shaded corner, where it is most at its ease. Because it takes some years before it shows its beauty it is but little grown. Its straggling stems need some support when weighed down with the clusters of flower. Perhaps it might do well on a wall in England. Can anyone tell of one that has succeeded?

*Nice.*

E. H. WOODALL.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 23.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

March 8.—Royal Horticultural Society's Drill Hall Meeting.

March 9.—East Anglian Horticultural Club Meeting.

**The Royal Horticultural Society and the special societies.**—In your interesting leading article, on page 88, you say: "We are sorry to find that Baron Schröder has been compelled to issue a second appeal on behalf of the Hall fund. . . . The new Hall will prove a boon to the many special societies that are constantly appealing to the Horticultural Club for the use of its rooms at the Hotel Windsor." There is an intimate association in the train of thought that prompted these two paragraphs. Is the Royal Horticultural Society quite sympathetic towards the special societies? If so, how comes it that it has recently pressed such onerous conditions upon the National Dahlia Society as to drive it back to the Crystal Palace? It can scarcely be doubted that this unhappy event—small in itself, perhaps—has had a share in checking the flow of subscriptions to the Hall fund. The special societies are too numerous and too strong to be treated in a cavalier way. They would be loyal to the great parent society, and a strong bulwark of support to it, if they were sympathetically dealt with. Let me add, sir, a word of grateful acknowledgment of the kindness of the committee of the Horticultural Club in connexion with the use of the club room at the Hotel Windsor for the committee meetings of the various societies.—WALTER P. WRIGHT, *Secretary, National Potato Society.*

"Nous n'irons plus au bois, les lauriers sont coupés."

Then come away! The woods are cut;

There is no beauty now;

No fragile flower on trembling stem,

No swinging branch in sunset glow.

The ships that started fresh and fair

Come home bestript of sail and mast;

The bluebell ghosts, just here and there,

Bespeak of springtime glory past.

Then come away! We will not spoil

The memory of what has been,

But onward patiently will toil

To other woods, still fresh and green.

M. C. D.

**Proposed excursion to Shrewsbury horticultural fete.**—A number of horticulturists and others interested living in Scotland having expressed a wish to visit this popular show, negotiations have been opened with the railway companies for such an excursion, which will be organised if sufficient support is promised. Excursionists might leave Edinburgh late on Tuesday night, and return from Shrewsbury on Wednesday night, or have an option to remain a day or two longer. Intimation, or application for further particulars, should be made to the undersigned, and it will greatly facilitate arrangements

if early intimation can be given. Such intimation does not bind anyone to go if, later, circumstances should prove unsuitable.—P. MURRAY THOMSON, *Secretary and Treasurer, Royal Caledonian Horticultural Society, 5, York Place, Edinburgh*; PETER LONEY, *Secretary, Scottish Horticultural Association, 6, Carlton Street, Edinburgh.*

**Royal Horticultural Society.**—We understand that an assistant secretary has been appointed at a salary of £200 a year, and we think it is quite time the present secretary, the Rev. W. Wilks, received substantial assistance in his work, which has increased greatly of late years. Editing the "Journal" itself is a serious burden.

**Forestry in the United Kingdom.**—On Thursday, the 25th inst., at 8 p.m., Professor Schlich will give a lecture in the Carpenters' Hall, London Wall, on "The Forestry Problem in the United Kingdom." The Carpenters' Company have arranged this lecture, and will be glad to welcome all interested.

**Future of the Manchester Botanical Gardens.**—Stretford's recent decision against the purchase of the Botanical Gardens, Old Trafford, was the subject of some discussion at the annual meeting of its proprietors, the Manchester Botanical and Horticultural Society, held on Thursday, the 4th inst., in the Town Hall, Albert Square. The report of the council expressed regret that the past year had been unsatisfactory from a financial standpoint, which was ascribed to the almost entire absence of summer-like weather during the season. A great portion of the report is taken up with a description of the negotiations between the society and the Stretford Council in reference to the suggested purchase of the gardens, a question which last week's poll decided against. The balance-sheet showed that an expenditure of £3,606 was made, and there was a deficit of £1,518 upon the year's working. The Lord Mayor, in moving the adoption of the report and balance-sheet, referred to the bad results of the year, largely due to the weather. This could not go on. The council could not face losses year after year, and the sooner something was done the better. Of course, the gardens had been offered to Stretford on what were considered reasonable terms, but by the vote of the people the purchase had been declined. Mr. John Wainwright said he still thought it a pity Stretford did not buy the gardens. He believed they were hardly aware of the value of the property. The land was worth 1s. per yard, which meant £80,000, and at the end of twelve years it could be used for building purposes. A resolution was adopted on the motion of Mr. Bowden, authorising the trustees and council, should they consider it expedient for the purposes of the society, to sell and dispose of the gardens of any part thereof. The resolution also authorised an increase of the security for a bank overdraft.

**"One and All" Gardening, 1904.**—This popular annual reaches its ninth issue this year. A first edition of 100,000 has been prepared to meet the growing demand. There are 200 profusely illustrated pages. The price is continued at 2d. Amongst the notable articles are "The Garden of Consolation," by the editor, Edward Owen Greening; "A Policeman's Roof Garden," "Board School Children's Flowers," "Floral Evolution," by James Scott; "Shakespeare's Plants" and "Shakespeare Weather Lore," by the Hon. H. A. Stanhope; "Appreciations of Gardening," by Louis Wain; "J. M. Harvey, the Actor-Manager," and numerous illustrated cultural articles.

**Gold-laced Polyanthus Mrs. Holden.**—A new introduction to the limited group of new varieties is always welcome. This new Polyanthus bears the name of Mrs. Holden, and was raised from seed from Mrs. Brownhill by Mr. G. Thornley, Middleton, Lancashire. It first appeared a few years ago, and, being full of promise, Mr. Thornley worked up a stock of it, and it is now being offered to the public. As the northern growers are freely buying it, it may be assumed that it possesses excellent qualities. It is a black ground flower with a clear yellow centre and lacing, and though I have been able to judge of its character from pips produced in winter, yet I am



sanguine it will not disappoint expectations. We shall doubtless have a chance of seeing this variety in London in April next, as the Midland and Northern growers will no doubt stage it. A correspondent, writing to me from Ireland, recently stated that he has a collection of more than a dozen varieties, and is adding to them as opportunity offers. In the moister climate of a portion of the Sister Kingdom the Gold-laced Polyanthus can no doubt be grown with a greater degree of success than in the south, where it by no means flourishes, despite the care which may be bestowed upon it. Our southern climate appears to be too exacting in summer, though the last two moist summers have been more favourable to its well being. Yet time was when named Gold-laced Polyanthus were most successfully grown round London.—R. DEAN.

**A new Raspberry—Queen of England.**—The Raspberry is so much liked in all households that any addition, and especially a superior fruit, to those we now possess will be found valuable. This fine seedling is the result of a cross between the well-known Raspberry Superlative and *Rubus laciniatus*; the first-named is a somewhat recent addition to the red sorts, and is a splendid cropper and very vigorous. It should be an excellent parent on that account; but it is strange that the *Rubus* should have given a golden fruit, as the Queen is a large rich yellow, and with a distinct foliage; the latter is studded with spines, in the way of the *Rubus*, and the foliage is in three divisions instead of five like the ordinary Raspberry. The fruits are in clusters like the Superlative, and borne later than the other white Raspberries, and the growth is much stronger. This is a great gain in light soils; indeed, I think it will prove of great value where other sorts fail to crop freely. It was given a first-class certificate when placed before the fruit committee, and the vote was unanimous, thus showing it was much liked. Since then I have been able to grow it by the side of older varieties, and am much pleased with it. I feel sure it will become a favourite, and doubtless the introduction of the Blackberry blood will give it increased vigour, as the latter parent is one of the best of the section, being very free and of good quality.—G. W. S.

**Soil work.**—The rainfall for the first month of the year was greatly increased by the continuous rains of thirty-six hours' duration on the last two days, and must have produced a degree of saturation of soil, following, as it did, on one of the wettest years remembered, that has rendered working not only difficult, but in many places impossible. That this excessive rainfall will be disastrous for cultivators of all descriptions there can be little doubt. Even light porous soils are having all plant nutrition washed out of them, as also being beaten very hard, just when ample aeration is so badly needed to sweeten them. Planting is terribly hindered still, as it has been from October onwards. When at Belfast last year Sir Norman Lockyer stated his belief that the third season of the wet cycle, because of the greater density of the sun spots, would be worse than either of the preceding ones; the statement perhaps did not secure the attention it deserved. The first month of the new year was so bad that it may well predict all that has been intimated.—A. D.

**Fruit culture in Scotland.**—It is interesting to find that, as mentioned on page 71, a material extension of fruit culture is to be promoted in Scotland. It may have been that the Northern Kingdom suffered less from rain and absence of sun than England last year, hence the enterprise mentioned. It would be unlikely that any material extension of fruit culture will be developed in the south, having regard to last year's bitter experience. Apart from that, the continuous rains render planting a matter of such difficulty that few will care to undertake it largely. We sadly need in the south a really good fruit season to give those who may wish to extend fruit culture here heart and hope. The mild and exceedingly wet winter so far is not conducive to do much, and we may well look forward with grave anxiety. It has been said that the failure of fruit bloom generally last year was largely due to

the effects of several very dry seasons on tree roots. That dryness no longer exists. Fruit buds on trees are plentiful. More now depends on the strength and fertility of the embryo, probably, than on anything else.—A. D.

**Derbyshire Horticultural Society.** The annual show will take place on September 14 and 15. The entries close for stock on August 12, implements on August 30, and for horticulture on September 7.

**A note from Ohio.**—I enclose a few little prints which may interest you. The Anemone, the single white, is the handsomest clump I ever saw anywhere. Last autumn it was considerably over 6 feet high. The reason for its success in this trying climate, where the thermometer goes to 20° below zero in winter, with sudden thaws perhaps a week after, when the thermometer rises to 60° above, is merely, I think, that the clump stands at the head of a tiny slope so that it is well drained, that it grows in rich heavy clay, and that Peach and Cherry trees grow so near that they protect it during blooming time from our early frosts and the fierce noonday sun. The double Whirlwind and the Queen Charlotte varieties do equally well, but I have no clumps so large. The Rose is a Queen of the Prairie, trained on a trellis along a back street. It here, too, likes a heavy clay soil. Neither of these plants get much attention in the way of mulching or fertilising, a ring of manure in the autumn is all.—(Miss) LUCY E. KEELER, Fremont, Ohio, U.S.A.

**A note from Worcestershire.**—The weather, though wet, keeps unseasonably mild for the time of year, and as a result the flower harbingers of spring have appeared earlier than last year in some cases. Cyclamen coum is especially good, and seems to have benefited by the incessant rain. *Iris unguicularis (stylosa)* has so far failed to flower. The last two summers it has missed its accustomed baking, and, though planted in a gravel walk at the foot of a warm wall, has produced a wealth of luxuriant foliage at the expense of the flowers. *Saxifraga burseriana major* is thickly beset with tiny buds, but I have to mourn the death of *Saxifraga Grisebachii*, which has succumbed to damp. *Anemone hepatica angulosa atrocærulea* is also just coming into flower, while Christmas Roses, *Erica carnea*, Winter Jasmine, and the little Winter Aconite are all in full bloom. *Narcissus pallidus præcox* does well on my light sandy soil, and promises to be in bloom earlier than usual this month. *Lithospermum prostratum* is a most random blooming plant. It is in bud now, indeed scarcely a month passes in which one could not gather some of its delightful flowers. Its relative, our native Gromwell (*L. purpureo-cæruleum*), grows slowly from seed. I sowed some in my cool greenhouse last year on February 15, and the hard shiny white seeds began to germinate early in January of this year. Canon Ellacombe, in "In My Vicarage Garden," remarks that when visiting Switzerland in September he was very interested in the fruits of this Gromwell, which he found in some of the woods in great abundance. "The interest," he tells us, "lay in this, that much of the shagreen from which our grandmothers' spectacles and etui cases were made was a manufactured article from asses' skin, into which was pressed hard seed, chiefly of the *Lithospermum*. As this is rather a rare plant in England I never could understand where the supply of seeds came from; but now, having seen it in such abundance in the woods of Switzerland, I can well fancy that the supply may have come from thence." Of Snowdrops I have now quite a large collection, but the rain splashes have sadly marred their purity. *Galanthus byzantinus*, of which I send you a few remaining flowers, was my first. It is a pity it is not more known, as it is very beautiful, and my real object in sending it is the hope that you will draw attention to its value. I believe I am right in saying that this species comes from around Constantinople. You will notice that its glaucous leaf closely resembles that of *G. plicatus*, while the narrow green and white tube, which is such a marvel of Nature's handiwork, reminds one of *G. Elwesii*. I send you this latter just for comparison. Most of the other Snowdrops, such as

*G. Fosteri*, *G. Imperati*, *G. Elwesii unguiculatus*, *G. Elwesii Erythrae*, and others are not fully out to-day (February 1), but a week hence should see them at their best. My plant of *G. Imperati Atkinsii*, which was figured in THE GARDEN last spring, has made good increase, and is already in flower. Two *Corydalis* species are in bud—*kolpakowskyana* and *angustifolia*. This latter was distributed last summer by Van Tubergen, and though an old plant, being first described by Bieberstein in his "Flora Taurica," vol. ii., page 146, under the name of *Fumaria angustifolia*, is very rare in cultivation.—ARTHUR R. GOODWIN.

**Clematis calycina.**—This Clematis is comparatively common in the south-west, where it grows to a considerably greater height than the 10 feet mentioned in the note on page 11. I know cases where it has reached the eaves of houses fully 20 feet in height, and in a friend's garden it has clambered up a tree to a height of over 25 feet. The greenish white flowers with their internal spotting of purple are not particularly attractive, their chief value being their advent in midwinter, for in most seasons expanded blossoms may be found in December, while during January and February they are produced in abundance. This Clematis is better known by the name of *C. balearica*, which indicates its native habitat. In the note referred to the specimen at Rosehill, Falmouth, is mentioned. This is growing over a trellis in company with another Clematis often confounded with it, namely, *C. cirrhosa*, a native of Southern Europe. This flowers considerably later than *C. calycina*, and its blossoms, of the same greenish white, are unspotted, while its foliage is not so deeply cut. When at Rosehill I was able to compare one of the last flowers of *C. calycina* with the earliest of *C. cirrhosa*, and also the foliage of the two respective plants. The illustration of *Clematis cirrhosa* in Nicholson's "Dictionary of Gardening" is apparently, from its deeply-cut leaves, a representation of *C. calycina*.—S. W. FITZHERBERT.

**The flowering of Bamboos.**—During the past season several notes have appeared recording the flowering of Bamboos, *Arundinaria Simoni* being the species referred to in almost every instance. This Bamboo flowered very generally in the south-west during 1903, and specimens now present a wretched appearance, being apparently sheaves of dead and brown canes. However, this species is said to recover after seeding, so that it is to be hoped that its disfigurement is only temporary. This, unfortunately, is not the case with some other species, which die after seeding. The splendid clumps of *Arundinaria nobilis* at Menabilly, which are over 25 feet in height, are the progeny of the original plant raised from seed sent from North China. This died in 1872 after thirty-three years of life. These are now thirty-two years old, so that it is to be feared that their lives will not be much further prolonged. I lately saw a specimen of *Phyllostachys boryana* in flower, and have heard that plants of *P. Henonis*, to my mind the most beautiful of all the Bamboos, have flowered in Cornwall, but this is merely hearsay evidence, which I have not been able to verify. It is to be hoped that the report is incorrect, for the death or even the temporary disfigurement of fine specimens creates a sad blank in the Bamboo garden.—S. W. FITZHERBERT.

**Edinburgh market gardeners and railway rates.**—As was reported in THE GARDEN some time ago, the market gardeners of the Edinburgh district were threatened with a serious hindrance to their business by the proposal of the local railway companies to introduce new regulations regarding the conveyance of their produce. The combined action of the Market Gardeners' Association and the Scottish Chamber of Agriculture led to the matter being laid before the Board of Agriculture, from which a letter was read at the meeting of the Chamber of Agriculture on the 3rd inst. It was stated, however, that the companies had not put the proposed regulations into force, and it was thought that the agitation of the market gardeners and others had thus been productive of some benefit. As they have not been withdrawn, however, it is recognised by all interested that there is yet some danger that the

regulations may be enforced to the great injury of the market gardeners, whose industry requires the frequent dispatch of small quantities of produce.

**Jasminum nudiflorum.**—During the past month the clear gold of the Winter Jasmine has formed an attractive picture on sunny days, at a time when little bright colour is to be found in the garden landscape with the exception of the cardinal and golden Willows and the ruddy bark of some of the Dogwoods. In a recent note it was recommended as a companion for Ivy, since the dark, shining leaves of the latter showed off its bright flowers to such advantage. Such a combination is certainly a very effective one, but I doubt if a more perfect associate for the winter Jasmine can be found than *Cotoneaster microphylla*. In a remote Devon village I saw, one Christmas, a thatched cottage with its front entirely covered with the mingled growths of these two plants, both at the zenith of their beauty, the Jasmine a veil of clear yellow, and the thickly clustering crimson berries of the *Cotoneaster* forming a glowing background for the flowers. It was a picture as charming as it was unique, for there are but few who, for the sake of brightening the midwinter days, would forego the wealth of summer beauty provided by climbing Roses, Passion Flower, Solanum, and other flowering creepers. However, when such an instance is met with, its originator deserves the thanks of all lovers of the beautiful for having had sufficient strength of mind to dispense with a summer flower-clad wall in order that the dull December days might be brightened by a cheery display of colour. In large gardens the same restrictions do not apply, for, while the cottage has but one front wall, there are many sites that may be chosen in spacious gardens where the two subjects here alluded to may be associated, and where their lengthy season of ineffectiveness may be rendered immaterial by the growth of summer-flowering climbers in their immediate vicinity.—S. W. F.

**The Baxter Park, Dundee.**—A number of improvements are at present in progress in this park, and the total cost of these is estimated to amount to at least £1,200. They are being carried out under the supervision of Mr. Carnochan, the Parks Superintendent, and when completed will add much to the beauty of the park. A considerable amount of pruning trees and shrubs has had to be undertaken, and the result will be that the natural forms of the plants will have room to develop so as to show their real beauty. It has been found necessary to remove a number of trees and shrubs, so crowded together were they in some places. New flower-beds are being made and others remodelled, while the pavilions and their accommodation are also being considerably improved.

**Royal Caledonian Horticultural Society.**—This society has issued the prize-list and rules for its spring and autumn shows, to be held in the Waverley Market, Edinburgh, on May 25 and 26 and September 14 and 15, copies of which can be obtained by application in writing to the secretary, 18, Waverley Market, Edinburgh. The changes of importance from the prize-lists of last year are not numerous, but two of these deserve special mention. The first, which is of the highest importance, has been made possible through the munificent gift of Mr. W. H. Massie (of Messrs. Dicksons and Co., Waterloo Place), of a silver challenge trophy of the value of 50 guineas for a Grape competition, the trophy to become the property of the exhibitor who wins it three times. The conditions have been drawn up after consultation with several of the best Grape competitors, and the trophy is to be competed for at the autumn show. The schedule stipulates eight bunches of Grapes, not more than two bunches of any variety, and the prizes are: First, the challenge trophy (to be won three times), with £15 in cash and a gold badge; second, £10; third, £5; fourth, £3. Each bunch will be judged on its individual merits and points awarded. A maximum of ten points may be given to Muscat of Alexandria; a maximum of nine points may be given to all other Muscats and Black Hamburgs; a maximum of eight points to all other varieties; the bunches to be staged singly, if possible, and the whole arranged on a table space

6 feet by 4 feet in two tiers, 2 feet in width. For the purpose of this competition Bowwood Muscat, Charlesworth Tokay, and Tynninghame Muscat cannot be shown as distinct varieties with Muscat of Alexandria. Gros Maroc and Cooper's Black are also considered synonymous. Superior cultivation and finish will be considered of the greatest importance. Each collection must be decorated; flowering or foliage plants (in pots not exceeding 5 inches in diameter), also cut flowers or foliage in glass or ware, or loose, allowed at the exhibitor's discretion. There is little doubt that the competition for this Scottish challenge trophy for Grapes will be of the highest interest to horticulturists in the kingdom. Of less importance, but a change in the right direction so far as the larger vegetable growers are concerned, is the abolition of the classes for collections of vegetables and the substitution of a class for a display of vegetables, with a table space of 6 feet long by 6 feet wide for each collection, and with prizes of £4, £2 10s., and £1 10s. The prizes are to be awarded for points as given in a maximum scale in the schedule.

**Grants to horticultural objects in Scotland.**—At a meeting on the 3rd inst. of the Lord Provost's committee of the Corporation of Edinburgh it was agreed to recommend that a grant of five guineas be made to the funds of the Working Men's Flower Show of Edinburgh. Few corporations are more disposed to assist horticulture in this manner than that of Edinburgh, and the show in question has done much to interest many in the city in the cultivation of plants and the brightening of many a court and dingy street. The schedule of the society is a most comprehensive one, and prizes are offered for plants not often seen at shows. One valuable special section is that confined to dwellers in what may be called the "congested districts" of the city. The other grant we have to record comes from what is known as the Glasgow Public House Trust—a body formed for the establishment of licensed houses on the Gothenburg principle—which means to devote the profits, after payment of a reasonable fixed rate of interest to its shareholders, to public objects in its sphere of operations. The trust has an ale and porter license in the village of Hallside, Newton, and from the profits of last year £10 have been given for prizes at the village flower show and as premiums for the best kept gardens.

**Corydalis angustifolia.**—Although the early flowering species of *Corydalis* are not so free and lack the brighter colouring of those which flower later in the season, they are interesting and useful on account of the earliness with which they come into bloom. Hardy tuberous rooted perennials, they are generally found in their native habitats in rather moist and shady positions, so that a similar position should be assigned to them in the rock garden or Fern border. They are also useful for growing in pans for the alpine house. The above species is a native of the Caucasus and Armenia, and was exhibited at the last meeting of the Royal Horticultural Society by Messrs. W. Cutbush and Son. It reaches a height of 4 inches to 8 inches, and has tuberous roots. The root leaves are biternate, on long, slender petioles, the divisions of the leaves being long and linear. The stem leaves are two in number, also biternate and again deeply divided. Laxly disposed in a short raceme with bracts, which are divided to the middle into three divisions, the flowers are somewhat cream coloured, with a long spur. Other species now in flower are *C. kolpakowskyana*, from Western Turkestan, a plant that has been in cultivation since 1879, with glabrous, much-divided leaves, and stems about 6 inches high, bearing racemes of pink or purple flowers with long spurs. *C. ledebouriana*, also introduced in the same year, is remarkable for its peculiar, ternately divided, glaucous leaves, which are arranged whorl-like about one-third of the way up the stem, which is 6 inches to 9 inches high. The flowers have been described as deep, vinous purple with pinkish spurs, and have entire ovate bracts. It is a native of Siberia.—W. I.

**Catalogue and Culture Guide of the National Dahlia Society.**—Mr. W. P. Tulloch, hon. secretary of the National Dahlia Society, writes: "Owing to the rapid

revival of interest in the Dahlia during recent years, due to the development of the Cactus flowered type, my society, as the leading authority on all Dahlia matters, has prepared and issued the enclosed booklet, with the object of affording assistance to growers both in the matter of culture and choice of varieties. The comparative ease in obtaining the best results from the Cactus Dahlia as compared with the older show and fancy types, brings it within the reach of all, but, in spite of this, no work on its culture has yet been issued." To all interested in the Dahlia this book will be indispensable. Mr. Edward Mawley (president of the society) contributes an introduction, and there follows "The Bibliography of the Dahlia." Among the many useful and practical articles contained are "Situation and Soils," "Propagating and Management under Glass," by Mr. Tulloch, assisted by experts; "Manuring, Watering, Lifting, and Storing," by S. Mortimer; "Enemies of the Dahlia," by H. L. Brousson; and "Raising Seedlings," by J. T. West. Mr. Tulloch further writes upon "The Popularity and Rapid Development of the Cactus Dahlia"; and the "Culture for Exhibition," by J. Stredwick; "Exhibiting," by J. Burrell; "The Cactus Dahlia for Garden Decoration," by J. T. West; and "The Cactus Dahlia for House Decoration," by F. G. Treseder, are also good reading. The above chapters chiefly concern the Cactus Dahlia. Show and Fancy, the Pompon, and the Single are treated by experts. Full descriptive lists of varieties of all sections are given at the end of the book, so that the Dahlia grower will find instruction upon all possible points.

## RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for February contains portraits of

*Lysichitum camtschatcense.*—Native of North-East Asia and North-West America. This is also known under the synonyms of *L. camtschaticum*, *L. camtschatcensis*, *L. japonicum*, *Symplocarpus kamschaticus*, *Arctiodracon japonicum*, *Pothos camtschaticus*, *Dracontium foliis lanceolatis*, and *Dracontium camtschatcense*. An exceedingly handsome and conspicuous flowered aroid, with large gold-coloured spathes resembling those of *Calla elliptica* and marbled foliage like that of a *Maranta*.

*Bulbophyllum auricomum.*—Native of Burma. Also known under the synonyms of *B. feniseccii* and *Dendrobium tripetaloides*. An inconspicuous and small white-flowered Orchid of little beauty.

*Corydalis Wilsoni.*—Native of Central China. This is a beautiful golden-flowered fumitory raised from seed sent to Messrs. Veitch by their collector, Mr. E. H. Wilson, and named after him.

*Sauromatum brevipes.*—Native of the Sikkim Himalaya. Also known under the synonyms of *Typhonium pedatum* and *T. brevipes*. A curious and rather ornamental aroid, producing very freely a number of slightly spotted, cream-coloured flowers with carmine centres, and rising out of the ground without any kind of foot-stalk. This interesting plant bloomed for the first time in Europe in the University Botanic Garden at Cambridge in 1902, whence it was sent to Kew by their curator, Mr. Lynch.

*Melaleuca uncinata.*—Native of temperate Australia. Also known under the synonyms of *M. hamata*, *M. Drummondii*, and *M. semiteres*. This is a rather inconspicuous white-flowered shrub of little beauty.

The first number of the *Revue Horticole* for February gives a group of four varieties of the new race of Dahlias originating in the Botanic Garden of the Parc de la tête d'Or at Lyons and known as Dahlias à collerette. The varieties figured are named respectively President Viger, Maurice Rivoire, Mme. Le Page Viger, and Massange de Louvrex. These flowers are a distinct new break in single Dahlias, and are very showy and free-flowering. Two varieties were sent out by Messrs. Rivoire of Lyons in 1902, two more in 1903, and this year six more are offered by the same firm.

The *Revue de l'Horticulture Belge* for February contains a portrait of a double-flowered Indian

Azalea named Rose de Noel, which is a very good variety, but hardly worth figuring on a coloured plate where some new or rare plant might have been portrayed.  
W. E. GUMBLETON.

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

ACACIA ACINACEA, A. baileyana, A. Drummondii, A. glaucescens, A. pubescens, A. verticillata, and others; Camellia reticulata, Eupatorium versale, Loropetalum chinense, and Rhododendron grande.

Palm House.

Acokanthera venenata, Clavija macrophylla, Dracaena reflexa, and Saraca indica.

Orchid Houses.

Arpophyllum spicatum, Cœlogyne macrobulbon, C. sparsa, C. sulphurea, Cynorchis compacta, C. lowiana, C. villosa, Cypripedium nigrum, C. rothschildianum, and others, Dendrobium Andromeda, D. burfordiense, D. eusmum, D. nobile, D. primulinum, D. speciosum, D. superbiens, D. wardianum, Lælia virens, Lycaste lasioglossa, Masdevallia polysticta, Odontoglossum Edwardii, O. pardinum, Oncidium macropetalum, O. tetrapetalum, Ornithidium coccineum, Phaius Blumei, Platylinis arachnites, P. glumacea, Saccolabium bellinum, Selenipedium cardinale, S. klotzschianum, S. Roezlii, S. Sedeni, S. Sedeni var. candidulum, Spiranthes plantaginea, and Trias picta.

Range.

Æchmea glomerata, Calathea picta, Caraguata cardinalis, Euphorbia fulgens, Pitcairnia corallina, Plectranthus crassus, and Sonerila peperomiaefolia.

Greenhouse.

Acacia obliqua, Cheiranthus kewensis, Coleus thyrsoides, Iris reticulata, Magnolia stellata, Primula obconica, P. sinensis vars., Pyrus floribunda, Senecio petasites, Tulips, and many other things.

Alpine House.

Anemone blanda, A. coronaria var. syriaca, Bulbocodium vernum, Colchicum crociflorum, C. hydrophilum, C. montanum, Crocus alataviens, C. ancyrensis, C. biflorus, C. chrysanthus, C. Olivieri, C. reticulatus, C. Sieberi, Cyclamen Coum, C. ibericum, Eranthis cilicica, Iris Histrio, I. reticulata var. Krelagei, Primula megaseefolia, Saxifraga Albertii, and S. burseriana var. major.

Herbaceous Ground and Rock Garden.

Adonis amurensis, Crocus Fleischeri, C. pestalozzei, C. Sieberi, S. suaveolens, and others, Iris Danfordiae, I. Histrio, I. histrioides, I. stenophylla, and I. Tauri.

Arboretum.

Chimonanthus fragrans and var. grandiflora, Hamamelis japonica, Lonicera fragrantissima, and L. Standishii.

TREES AND SHRUBS.

ULMUS PUMILA.

OF the many species of Ulmus in cultivation, this is one of the most distinct, especially during early winter, for long after all the leaves of other Elms have turned yellow and fallen those of U. pumila remain quite green. In early December not a single leaf on a fine specimen in the Elm collection at Kew showed signs of decay, while all the other species and varieties in the vicinity were leafless. U. pumila is a native of Northern Asia, and is said to vary considerably in stature in the various places where it is found. Sometimes it is met with as a fair sized tree, at others

as a mere bush 2 feet or 3 feet high. At Kew the largest specimen is upwards of 20 feet high, with a symmetrical, well-balanced head. The branches are fairly thin and twiggy, and, together with the small leaves, give the tree a graceful habit. The leaves are ovate, or ovate-lanceolate, with serrated margins. They vary considerably in size, some being barely half an inch long, while others are nearly 2 inches long and nearly an inch wide. In colour they are deep green, and in texture they are thicker and firmer than those of most Elms. For gardens where small-growing trees are desired this Elm would be a suitable one, its leaves hanging so much later than those of most deciduous trees.

W. DALLIMORE.

SHADE TREES.

OAK.

So far as experiments have shown, Oaks are the best shade trees for cities. They are strong, durable, and beautiful, and have few enemies. Owing to a popular notion that Oaks grow slowly, they have heretofore been little planted on streets, but several cities are now beginning to make use of them. The oldest Oaks are to be seen in Hamburg, where the city has encroached upon the ancient forest. An avenue of this same species (Q. pedunculata) has been recently planted in Cologne, which, so far as I have observed, is the only city in Europe that has made use of the Oak for street planting. In this country the oldest Oaks may be seen in Washington, where the Red Oak and Pin Oak in particular have been very successfully grown. Red Oaks have also been recently planted in Boston between Franklin Park and Huntington Avenue. The best species of Oak are probably the Red Oak, the Pin Oak, and the Scarlet Oak; but there are several other species almost as good as these, though none of quite so rapid growth as the Red Oak. The White Oak is somewhat objectionable on account of its slow growth, and because its leaves remain upon the tree after they are dead. The number of Oaks given in the list might be much increased. Those selected are of various sizes, and have been given a trial.

SYCAMORE.

The Sycamore is an excellent shade producer, the leaves appearing at the proper time in this latitude and remaining on the tree as long as could be desired, when they give place to the persistent and graceful fruit. With a little protection it passes the northern winters uninjured, and develops rapidly into a splendid and shapely tree, large enough for the widest avenues or capable of being adapted by pruning, to which it most readily submits, to very narrow streets. Such is the activity of its young wood and bark that the stem is at times completely girdled without appreciable injury, and the outer layers of its cortex are annually sloughed off during late summer and autumn, leaving the new layers beneath entirely free from soot and dirt accumulated during the summer. It is partly due to this, perhaps, that it enjoys, with the Ailanthus, the distinction of being best adapted to parts of cities where smoke and dust abound.

The only serious enemy of the Sycamore is a fungus which attacks its shoots and young leaves in early summer, greatly disfiguring the tree. In some cities of Southern Europe complaint is made of the thick hairy covering which becomes detached from the young leaves and twigs and gets into the nose and mouth, producing an inflammation known as the "Sycamore cough." This tree is, however, most widely and abundantly employed in the cities of India, Persia, and Europe, while in America it is deservedly growing more popular as a street tree every year. In London it is considered by many to be the only tree that will thrive in the dirt and smoke of so large a city.

Of the two common species of Sycamore, the Eastern is smaller and of closer growth than our native species, though less hardy and less beautiful in form. It was for some time thought also that the Eastern species was less subject to attack by the Sycamore fungus, but this is probably not the

case. In this country the Oriental Sycamore is usually preferred, while in Paris the Western species is used exclusively, since it seems to conform better to the style of pruning adopted in that city.

AILANTHUS.

The Ailanthus is another importation from the Orient, less common than the Oriental Sycamore, and, on account of some especially objectionable qualities, very unpopular with the public. Some of these qualities, however, are not serious faults, and may be entirely corrected with proper care. For example, the unpleasant odour at blossoming time is confined to the male flowers, and trees bearing these flowers need not be cultivated. The habit of sprouting profusely at the roots, though dangerous to pavements, renders the propagation of the Ailanthus extremely easy, and also makes it possible to select only the desirable trees. Those who object to the odour of the male flowers for two or three days, however, must endure the sight of the ugly brown fruit clusters which often hang upon the tree throughout the winter. A fault which cannot be remedied is the early maturity and disfigurement accompanying rapid growth. When young the Ailanthus is vigorous and shapely if properly trained, and its large leaves are green until frost, but most of the old trees I have seen present a very scraggy and unsightly appearance. There are fine avenues of this tree in Paris, where it is unrivalled for vigour and general thriftiness. When these trees show signs of failing they will be cut down and the avenues replanted. The qualities which make the Ailanthus especially desirable as a shade tree are its ability to grow in even the most barren soil and to thrive in the midst of smoke and dust and other adverse surroundings peculiar to city streets. When the question is not what tree would be the most ornamental, but what tree would live and grow in a particular locality, then the Ailanthus should certainly be considered.

W. A. MURRELL, in Bulletin of Cornell University. (To be continued.)

CHRYSANTHEMUMS.

MINIATURE POMPON CHRYSANTHEMUMS.

WE have one section of the decorative Chrysanthemums of which little is known, so much that there is a risk of many charming sorts being lost sight of. I refer to the small-flowered Pompoms, such as Snow-drop and Primrose League. There are few gardens in which these miniature-flowered Pompons are grown. Chrysanthemum growers, in their haste to get the large blooms of other sections, appear forgetful of the existence of these small-flowered sorts, and seldom are the flowers represented at the exhibitions.

The list of miniature-flowered Pompons is a very short one; more's the pity. The fact is this: the varieties have been introduced at different periods during the last twenty years, and, because there has been no competitive class for them at the shows, the orthodox grower has disregarded them. A careful perusal of the trade catalogues shows that there is only one firm who make a special list of these "small, well-formed flowers," and in this respect the unique list is the catalogue of Messrs. H. Cannell and Sons has much interest. Some of the better kinds are met with here and there in others, but none of them compare with the one I have just named. These small-flowered Pompons should find a place in all collections which have to provide a quantity of cut flowers in November and December. Their small size, dainty form, together with the graceful sprays in which they may be gathered, have much charm. For dinner-table decorations the sprays are excellent, and for the numerous smaller receptacles so frequently in use for all forms of indoor decoration these sprays only need to be seen to be appreciated.

No one seems to talk about these flowers, and yet they are unequalled in many respects, for the

## THE LILIES.

## LILIUM ELEGANS (THUNB.).

*(Continued from page 88.)*

conservatory as well as for use as cut flowers. A vase of freely-flowered sprays of some of the sorts, contrasted with a bloom or two of some large exhibition Japanese variety, is a sight worth seeing.

The present is an excellent time to insert the cuttings, and these, when rooted, should be potted up without delay. When established in their small pots the young plants should be topped or pinched, and this work repeated at each succeeding 4 inches to 6 inches of growth. Pinch the points out of the plants for the last time about the middle of July, from which point they should be grown on to their terminal buds. The terminal buds should be well thinned out, so that the flowers are not too crowded. Plants treated in this way invariably give a handsome reward. Those worth growing are the following:

*Snowdrop.*—As the name implies, this is a beautiful white variety, and very free. The flowers are sometimes described as button-like; but when well grown, they are almost globular. At its best in late November. Height 3½ feet.

*Primrose League.*—This variety is sometimes spoken of as Yellow Snowdrop. As a matter of fact, it is a primrose-coloured sport from Snowdrop, and in every respect but colour is the same as the parent variety.

*Miss Gertie Waterer.*—This is another sport from Snowdrop, the colour in this instance being a pleasing flesh-pink shade. Some years ago it was exhibited before the floral committee of the National Chrysanthemum Society, and, I believe, then received a first-class certificate. Since that date, however, some of the stock appears to have reverted to the original. Where the true stock can be procured, it is worthy of inclusion in the smallest selection.

*Katie Manning.*—In this variety we have a small-flowered Pompon of comparatively recent introduction, and one that has a good future before it. The flowers are freely produced, and are also of good form. The colour may be best described as rosy-bronze. In bloom in early November. Height about 2½ feet.

*Purity.*—This is another pure white sort, somewhat similar to Snowdrop, but less sturdy in growth. The sprays make up into handsome bunches for vases. Very dwarf.

*Lune Fleurie.*—This is a curious, though extremely interesting plant. The numerous pretty little globular blooms are fimbriated, and their colour is a deep bronzy-orange. This variety was introduced in 1889, and received a first-class certificate from the National Chrysanthemum Society.

*Model of Perfection.*—Introduced by the late Mr. Forsyth in 1873, and still a distinctly pretty little Pompon. As the name suggests, the form of the flower is exquisite, being neat and globular. Colour rosy-lilac. A November-flowering plant. Dwarf.

*Victorine.*—A French introduction of 1889, having small blossoms, rosette-like in form. Colour maroon-crimson. To be seen at its best the plant should be disbudded rather freely. Dwarf. In flower in November.

*Little Pet.*—Another delightful miniature of globular form and prettily imbricated. Colour orange-red, passing to chestnut, with a golden reverse to the florets. There is also another variety bearing the same name, that the distributor describes as a small, neat, blush flower.

*Yellow Gem.*—This is a pretty October-flowering Pompon that succeeds as well in the open border as in pots. The flowers are small, neat, and globular, and the florets are fimbriated. Colour deep yellow. Height 2 feet. Bushy habit.

*Dolly.*—Although not quite so small as some of the others, this is a very charming little flower that pays for good culture. The colour is a clear canary-yellow, and the blossoms are of good form and beautifully finished. In flower in late October. Nice habit.

*Little Dot.*—By several the blooms of this variety are regarded as the smallest of the family. They are quite distinct from all others. Colour yellow, edged red and brown.

Others might be added, but this selection of a dozen sorts is quite enough for beginners.

D. B. CRANE.

*VAR. ORANGE QUEEN.*—One of the best Lilies of this type, and a valuable garden plant, bright in colouring and refined in form. It has stout stems above a foot high, clothed with broadly lance-shaped, reflexing, glossy green leaves, and bearing one to three flowers, the petals of which are broadly spoon-shaped, the tips rounded, and remarkable for their texture and finish. Colour a rich orange-buff, almost unspotted, and of a uniform tint throughout. A grand Lily, vigorous, free in growth, and very hardy. Common in cultivation. Flowers in mid-July.

*Var. ornatum* (the Ornate L. elegans).—A great rarity, best described as a glorified *alutaceum grandiflorum*.

*Var. purdinum.*—See var. Wilsoni.

*Var. Peter Barr.*—A fine Lily of the *alutaceum* type, new to cultivation, coloured a pale orange-buff, the petals very long but narrow, and lacking the finish and texture of petal that is so important a feature of this type of Lily. Flowers in July.

*Var. pictum.*—See var. bicolor.

*Var. Prince of Orange.*—A very robust, many-flowered form of *alutaceum*, with stout stems, and about a foot high; the flowers are a soft shade of buff in colour, and sparsely spotted internally, and generally arranged in umbels of three to five. As a garden plant it excels many of its fellows in vigour of growth and freedom of flowering. Common in cultivation. Flowers in July.

*Var. robustum.*—See *marmoratum aureum*.

*Var. staminosum.*—See *fulgens flore-pleno*.

*Var. The Sultan.*—A counterpart of Prince of Orange in habit, but coloured very dark crimson, and spotted black low down internally. The best sombre-coloured dwarf Lily for general purposes. Not common in cultivation. Flowers in July and August.

*Var. Van Houttei* (Van Houtte's Crimson L. elegans).—A very popular and valuable variety for every garden use. Its stems are stout, 12 inches high, and bear two to three rich crimson-scarlet flowers; the petals are exceptionally broad, expanding fully but not reflexing. They have scarcely any tube, but spring at right angles from the stem, and they span fully 6 inches across. A few linear spots of black occur low down each petal, and the extreme base is yellow. It is the nearest approach to the rare *Horsmanii* known to us.

*Var. venustum.*—See *armenaicum*.

*Var. Wallacei* (Wallace's L. elegans).—A strong-growing plant with globose bulbs 2 inches in diameter, stems 2 feet to 3 feet long, slender, the leaves linear and ascending. Its flowers are borne in umbels of three to five, coloured a deep coral red, darker near the tips, and spotted internally with brown; they reflex as fully as in *Batemannia*. The bulbs are often compound, and thrive in a deeply tilled moist soil. Common in cultivation. Flowers in late August.

*Var. Wilsoni* is a wide variation of L. elegans, and with a peculiar habit of its own. It has large bulbs resembling those of L. tigrinum. The stems travel under ground some distance before they pierce the surface, and they bear several bulbils along the covered portion. Height above ground 2 feet. Leaves broadly lance-shaped, thickly clothing the stems, and covered with a cobweb-like covering in a young state. Flowers in a short spike of ten to fifteen, each 5 inches across, deeply cup-

shaped, the petals broad and very straight, coloured rich orange, spotted internally with crimson low down the funnel. A very vigorous form. Common in cultivation. Flowers in August.

**CULTURE AND USES.**—The elegans group of cup-flowered Lilies are good, all-round border plants, mainly of very dwarf stature and suitable for associating with low growing herbs in the forefront of beds and borders. They are also well adapted for pot culture. With the exception of *Wilsoni*, *Batemannia*, *Wallacei*, and E. L. Joerg, whose culture we will describe later, all may be treated similarly. They require good cultivation to maintain their flowering strength, and we have found a liberal dressing of leaf-soil to the staple the best rooting medium of all. They grow well in a sunny exposure or in shade, preferring a light, well-drained soil of deep tilth. They make quantities of stem roots, hence deep planting should be the rule, and, in order that the rooting bases may be screened from drying winds and strong sunshine, they should be planted either closely together or with a carpet of *Aubrietia* or similar plants about their stems. We have seen them used effectively in small colonies amid shrubs and in association with Bamboos and other grasses, and they are magnificent in beds; but their season of flowering is too short in its duration to warrant extended use in this direction. They make excellent pot plants, and when grown carefully they develop into fine plants under glass. Large and roomy pots are more satisfactory than smaller ones, as these admit of six to twelve bulbs being grown together—the only way in which these dwarf Lilies can be fully appreciated. Even in border culture small colonies associated with other plants are much more effective than scattered units. *Batemannia*, *Wilsoni*, and E. L. Joerg require a strong soil. These Lilies grow but slowly, and ripen late in the season; they require warm situations and plenty of water in dry summers, or their leaves will become disfigured before the flowering season and their bulb development will be slight. L. *Wallacei* succeeds best in rich vegetable loam; its best situation would be in the drier places of a bog garden. It succeeds well with *Iris Kämpferi* on the margins of waterways.

*L. excelsum* (Hort.).—See *testaceum* (Lindl.).

*L. Fortunei.*—See L. *tigrinum Fortunei*.

G. B. MALLETT.

*(To be continued.)*

## WINTER FLOWERS AT EXETER.

## NORTHERNHAY PUBLIC GARDENS.

IN the duller part of the winter, with scarcely a day without rain, and an almost complete absence of sunlight, so that no inducement has for weeks been offered to the native vegetation to brighten our hedgerows, except by an occasional group of the lesser Periwinkle and a few berried shrubs, it was a pleasant change from sloppy streets to suddenly come upon quite a bright show of Primroses in a sheltered border of some considerable length in the public gardens at Northernhay, Exeter, on one of the wettest days possible in the first week in January. In these well-kept grounds, which may be correctly described as being situated in the centre of the city, is a border thickly planted with Primroses mixed with Ivy, and at the time specified every clump was full of the favourite yellow flowers and buds.

Northernhay is a favourite resort of the citizens of Exeter, hands playing here during the summer evenings. The place receives careful attention

from the corporation, and the rock plants, with a backing of shrubs, which is a special feature in the centre of the grounds, have all been recently named with neat iron labels painted black with white letters and fixed in the ground with two strong wire prongs. These labels have the advantage of being permanent, are quite unobtrusive, and cannot be distinguished at a short distance. For the most part the names are correctly spelt, but in a public garden it should be made impossible for even a single error to occur.

From these grounds, looking across the valley where is situated the South-Western Railway Station, and through which the line runs from Waterloo to Plymouth and North Devon, the glass houses in the nursery of Messrs. Robert Veitch and Son are distinctly seen. Making our way thither in the hope of seeing some floral brightness, the dwarf hedge of *Cotoneaster microphylla*, which borders the steps on either side of the path leading to the main walk, attracts attention by its numerous bright red berries, which, however, are considerably outdone by *C. pannosa*, a shrub of which is seen a little further on literally covered with berries of a brilliant scarlet. This handsome shrub, which attains to a height of 6 feet or more, has the double attraction of bearing a profusion of white flowers in the summer succeeded by the clusters of berries. It flourishes out of doors in this part of England.

The persistent rain has the effect of driving one under the protection of the glass houses, where, in a pleasant temperature, one can linger and enjoy the touches of colour. A bright effect is produced by a mass of *Begonia Gloire de Lorraine*, the golden-yellow stars formed by the stamens lighting up the whole mass. Near this was a nice group of *Browallia speciosa major*, the West Indian Forget-me-not, the rich deep blue flowers of which formed a striking contrast to those of the *Begonia*. The pale yellow flowers of *Calceolaria Burbidgei* interspersed with the bright green foliage were also much in evidence. A newly-revived old friend which is just now attracting some attention in consequence of its appearance at the last show of the Royal Horticultural Society, namely, *Jacobinia chrysostephana*, required no introduction, as its terminal clusters of orange-yellow flowers raised above the surrounding foliage went far to impart brightness and relief to the outside gloom, besides which it pointed to a fact that there are many of the older introductions that are quite worth reviving, and can compare well with those of more recent appearance, a matter which was emphasised by Mr. Veitch himself, who, indeed, has a strong liking for many of the older and best known plants.

Amongst *Acacias* now well in flower we noticed a nice group of *Acacia platyptera*, the golden buds of flowers being abundantly produced on nice bushy plants about 12 inches to 18 inches high; *Correa cardinalis* and *ventricosa* were brilliant with their bright red and pink and white tubular flowers. Though these were small compact pot plants, both species have proved quite hardy against a wall in several parts of South Devon and Cornwall. Near to these and well covered with flower-buds were groups of *Boronia megastigma*, *Eriostemon linariaefolius*, *E. nerifolius*, and *E. scaber*, as well as the peculiar *Grevillea alpina*, with its curiously twisted pink and white flowers. A new introduction from China, with bright yellow flowers and green blotch at the mouth, cannot fail to attract, especially at this time of year. It is *Corydalis thalictrifolia*, and is described as a profuse and continuous bloomer, the racemes of flowers are about 6 inches long, and are produced freely during summer, and if the plant be taken indoors in the autumn it will keep flowering through the winter. As a conservatory pot plant or for hanging baskets it is said to be equally valuable. The pretty blue *Coleus* (*C. thyrsoideus*) was just coming into flower, and amongst plants interesting rather than beautiful at the present time was one of the Bottle Brushes (*Metrosideros floribunda alba*) in fruit.

Without enumerating other plants we may, perhaps, close this notice with a reference to the new *Borecole* called the Albino, which was shown me, not in a growing condition, but as a fresh

decorative plant for vases. The heart leaves are of a creamy white, and the outer leaves, which are much crested, are white, irregularly edged with bright green. It is stated that as the winter advances the leaves become whiter, and in the early spring it is an object of great beauty. The plant is perfectly hardy, and might be well grown for decorative purposes in addition to its edible qualities. It has obtained an award of merit from the Royal Horticultural Society.

JOHN R. JACKSON.

Claremont, Lympstone, South Devon.

## NOTES ON HARDY PLANTS

### RAMONDA PYRENAICA.

**R**AMONDA PYRENAICA is a plant that no rock garden should be without. It thrives best in an upright fissure on the shady side of rocks, and loves abundance of moisture, but is, nevertheless, very averse to having water resting in the centre of its rosette of leaves, and requires therefore to be planted sideways. *R. pyrenaica alba* is still rare and expensive. *R. Heldreichi* has hairy leaves, and requires less shade and moisture than *R. pyrenaica*. *R. serbica* is distinguished by yellowish coloured flowers. G.

### HELLEBORUS NIGER.

THE flowers of this useful hardy plant are always acceptable, as they are produced during the dull days of winter when but few things are in bloom out of doors. It is at Christmas time and in the New Year that their flowers are in most request for decorations. To ensure having pure white flowers the plants must be covered with a frame or hand-light when growing, or be lifted and potted up and placed in frames or the greenhouse.

The flowers of the type when well grown measure 3 inches across, and are borne on stout, erect stems thrown well above the dark green leafage. *H. N. maximus* bears larger flowers, and is well adapted for forming a succession to the above-named. Quite as good results come from leaving the plants in the ground merely by placing a hand-light or frame over them and covering this with litter or mats at night and on frosty or rainy days. Many people, however, prefer to pot up the plants, as then they can be utilised in the conservatory or in dwelling rooms when in blossom. Early in spring these should be replanted into deeply dug and well-enriched soil on a warm border, where they should remain for one or two years undisturbed before again being lifted. Abundance of well-developed flowers

cannot be expected two years in succession from the same plants. Those who are fortunate in having a good stock of established plants can lift a batch each year, and these can be brought on into flower as required. By planting out and giving liberal treatment throughout their season of growth they may again be lifted and gently forced in the second year. Hard forcing must never be resorted to, or the results in after years will be disappointing. The production of flowers may be hastened by merely shaking a few tree leaves among the crowns, and then keep the frame close and dark for a few days. With regard to those potted up they should be plunged in a bed of tree leaves, as these afford just that gentle warmth that is natural and no harm will result to the plants. Essential points to bear in mind in the cultivation of the *Hellebores* are liberal treatment in summer, the proper ripening of the crowns in autumn, and, lastly, not to disturb their roots oftener than is absolutely necessary. H. T. M.

### HARDY FLOWERS FOR HOUSE DECORATION.

THE flowers of many hardy plants which once seemed to be despised have regained favour, and it is, indeed, fortunate that florists again use many which formerly were in great demand. Thus we may now see in the displays of the leading florists the panicles of the Goat's-beard, Meadowsweet, Poppies, Foxglove, Larkspur, Iris, Sunflowers, and many others which formerly appeared to be of no value, and were relegated to the shops of the smaller florists or to the buttonhole stalls of the boulevards, or withered under the sun in the carts of the street flower-hawkers. Grasses, the spikes of Wheat, Oats, Barley, &c., are also much used



RAMONDA PYRENAICA ON ROCK GARDEN.  
(From a photograph by Miss Willmott.)

in floral arrangements, and we owe much to those who first thought of using them in this way.

The flora of the garden is extensive enough to respond to the many exigencies of floral decoration. And if the flowers of early spring (except a few, amongst which are the large Tulips) are not always fit to be used in large displays, others succeed them whose qualities are well worth considering. Such is the Iris, especially the beautiful varieties of the hybrid German Irises, whose flowers with their tawny tints, soft shades, and delicate velvety petals almost rival the Orchids. Peonies, Delphiniums (which comprise the whole scale of blues), Chrysanthemums, and Sunflowers—all are suitable for the composition of elegant and effective arrangements. We have mentioned above perennials only, but neither are the flowers of annuals and biennials without advantages from the artistic point of view. Few flowers were more neglected by florists than the single Dahlias and Cactus Dahlias, yet with these very pretty effects can be obtained. The Belgian, German, and Dutch florists make great use of them, for they know the value from a decorative point of view of these Dahlias. These ought not, however, to be placed in stiff rows; they show much better if they are placed in bunches at different heights. If they are very pretty when thus used alone, they have an equally good effect when associated with flowers of another kind, whether it be with heavy clusters of Tritoma, or with the slender Montbretia or Gladiolus. There is something exquisite in the blending of the colours of the Tritoma, the Montbretia, the clusters of the red and orange-coloured fruits of the Elder tree, the Mountain Ash, and other red-fruited bushes. The German florists create some very pretty things in this style. The varieties with purple flowers will also produce the same effect when associated with Gladiolus of the same tone and with other flowers. Others are very beautiful when mingled with autumn-tinted foliage or placed among the branches of the Copper Beech or the variegated-leaved Acer Negundo.

This is not the place to enumerate all the hardy flowers capable of being utilised in floral arrangements, but we cannot too strongly call the attention of florists and amateurs to the numerous ones unjustly neglected. Wild flowers are also hardy flowers, but they are distinguished from the latter, inasmuch as they are not cultivated. In spite of the poetic ideas which they evoke, they cannot be used as much as one could wish, for they are deficient in certain necessary qualities. Nevertheless, one cannot dispute their decorative worth when mingled with the common grasses. This combination lends itself to the formation of exquisite bunches.

It is astonishing that the Parisian florists have not learned to use the Nymphaea in their floral designs. In order that they may show well, care should be taken to place them in an oblique or horizontal position rather than upright. If florists would use them intelligently they would find that some very pretty things could be formed with them. To say nothing of the flowers of Nymphaea alba, the flowers of the hybrid Nymphaeas, with their lovely tints of rose, sulphur, orange, violet-blue, &c., would offer special attraction. Nelumbium speciosum is also a very ornamental flower, and one that ought not to be left out; the long spikes of Willow form a good companion to it. Cherry and Apple branches in flower are used for home decoration, and rightly so; it is a great pity that the decorative value of trees and shrubs has not been recognised before. The long branches covered with snowy blossoms or tinged with the faintest touch of rose colour, and with plenty of dainty unopened buds, are superbly pretty when well disposed. There is nothing so delightful as these fresh blossoms; it is the orchard with all its perfumes and promises of spring which thus is brought into our homes. But the fruit-bearing trees need not be deprived of all their blossomed branches, for we have beautiful and purely ornamental varieties of Plum, Peach, and Quince, which every spring are covered with blossoms. Neither let us forget the series of beautiful ornamental Crabs, which deserve to be utilised more than they are in floral work, and which, after having pro-

duced innumerable flowers, are covered with myriads of small fruits. Florists have already recognised the beauty and value of the ornamental Cherries, but it would be praiseworthy if the majority understood better what use to make of them, following the example of the Japanese, who, as soon as Nature reawakes, adorn all their dwellings with blossom-covered shoots, and thus bid welcome to the spring.

ALBERT MAUMENE, id *Le Jardin*.

#### SAXIFRAGE DR. RAMSAY.

THIS Saxifrage, raised by Mr. Robert Lindsay, Kaines Lodge, Midlothian, promises to be one of the finest of the encrusted section. It has a large rosette of long leaves, and produces its flowers freely on good spikes. The individual flowers, which are white, are large and well formed. It is a plant which grows well, and seems likely to become a favourite when better known. The greater portion of the stock has been put in the hands of a nurseryman for distribution, so that it will probably be available before long.

S. ARNOTT.

#### EVERGREEN HOLLIES.

(Continued from page 93.)

##### ILEX INTEGRA.

**K**NOWN also in some gardens as *Othera japonica*, this distinct Holly is represented by a fine specimen in the Kew collection. It is of a shapely pyramidal growth, 15 feet high and 7 feet in diameter. The most marked character of the species, as a Holly, is the entire absence of spines on the leaf margins. The leaves are obovate or lanceolate, blunt pointed, 2 inches to 4 inches long, and of a lustrous dark green. Except possibly in the south and south-west of the British Isles it does not appear to bear fruit freely. In her late Majesty's garden at Osborne a specimen used to (perhaps does now) produce berries freely. These are red, about half an inch in diameter, and in Japan, where the tree grows 30 feet to 40 feet high, are said to make this Holly very ornamental. The species is a native of China as well as Japan, and besides the names given above is known also as *Ilex integrifolia*.

##### I. LATIFOLIA.

Although this magnificent Holly has stood outside in a sheltered spot at Kew for many years without injury, it really requires a warmer climate to develop its full beauty. Of all the Hollies that can be grown out of doors in the British Isles this is the finest as regards the foliage. Oblong in form, and of a deep lustrous green, the leaves frequently measure 8 inches in length and 4 inches in width. The margins are set with thin, but not sharp or spiny, teeth. It is a native of Japan, but occurs too far to the south of that Empire to be hardy in most parts of Britain. It reaches occasionally a stature of 60 feet, and is described as not only the most beautiful of all the Hollies of Japan, but the handsomest of all broad-leaved evergreens in that country. The fruit is large, like that of *I. integra*, scarlet, and produced in short axillary clusters.

##### I. OPACA (AMERICAN HOLLY).

Whilst not possessing the bright foliage that is so characteristic of our native Holly, nor being so beautiful a plant, the American Holly is, withal, a very handsome evergreen. At its best it reaches a stature of 40 feet to 50 feet, and has a trunk 2 feet to 3 feet in diameter. Its habit is much the same as that of the common Holly, being somewhat narrow and pyramidal. The leaves are very distinct from most Hollies in being smooth, but quite dull;

they are 2 inches to 3 inches long, the margins set with spiny teeth. The fruits are roundish, dull red, and about a quarter of an inch across. The species was introduced from the United States to Britain by the Duke of Argyll in 1744. Probably there are big specimens in the country, but I have not seen any myself approaching the heights given above, which are those of native trees. Of the several representatives in Kew the largest is about 25 feet high and 16 feet through. It would be interesting to know of any large specimens that may exist. It is easily distinguished from other Hollies of its size by the dull, "opaque" aspect of dark green foliage. No varieties of it appear to exist in cultivation, although Sargent states that its berries are sometimes, though rarely, yellow.

##### I. PERNYI.

The latest addition to evergreen Hollies, this species promises to be also one of the prettiest and most distinct. It is a native of China, and is now, I believe, cultivated by Messrs. Veitch in the Coombe Nursery, having been introduced by their collector, Mr. E. H. Wilson. It had previously been discovered by Dr. A. Henry and other travellers. The leaves are 1 inch to 1½ inches long, closely set upon the branches and short stalked. Each leaf is ovate-lanceolate in general outline, but has one or two (usually two) prominent spine-tipped teeth at each side, and has a long, tapering, sharp-pointed apex. The fruit is globose, red, and as large as that of the common Holly. This species has quite a different aspect to any other species of Holly, and resembles most, perhaps, some of the smallest-leaved varieties of *I. Aquifolium*. Its distribution by Messrs. Veitch will be awaited with interest.

W. J. BEAN.

(To be continued.)

## THE FRUIT GARDEN.

### MELONS AND THEIR CULTURE.

**F**EW fruits are more appreciated during the summer months than a ripe, luscious Melon, and those who wish to be able to enjoy them must not delay making preparations for their culture. It may be said that it does not pay to sow Melon seeds before Christmas, even for the earliest crop of fruits. I have tried sowing seeds in December and also in January for a first early crop, and my experience is that more satisfactory results are experienced from the latter sowing. In December, when dull and sunless days are the rule rather than the exception, the seeds take a long time to germinate, and the plants become weakly and attenuated, and even with the advent of brighter days in the spring never seem really to have the vigour of later-sown plants. Those sown, say, the second week in January, have the advantage of brighter weather and increased sunlight, and the seedlings show their appreciation of this by a rapid and vigorous growth. It is astonishing what a difference there is in the growth of seedlings in December and about three weeks later. Sometimes Melon seeds sown in December will produce ripe fruits a few days earlier than those sown in early January, but often the latter will give fruits at the same time, and they are superior in flavour and size. A good deal, of course, depends upon the weather and also the district in which the grower resides. In the neighbourhood of London, where the winter days are often unaccompanied by sunlight, and sometimes foggy, I have repeatedly known Melon seeds sown in January to develop into plants that fruited as soon as those from seed sown three weeks earlier. The Melon, however, is never appreciated early in the year; it is a fruit for a

hot summer's day, and then only attains to perfection. In the absence of sun the flavour can never be of the best, so that except under special circumstances Melon culture quite early in the year does not prove satisfactory.

Seeds sown now will produce ripe fruits in May and June; two seeds should be sown in a small pot that has been filled with loam with which some leaf-soil and sand are mixed. Place the pots close together in a warm house. Cover with a piece of glass; this keeps the soil moist and warm. Hasten germination when the seedlings have grown sufficiently to enable one to see which is the stronger of the two, and pull up the other one carefully, or, better still, cut it off at the base; the roots of the other then will not be disturbed. As the seedlings appear the glass must, of course, be removed. Keep them near to the roof glass, otherwise they will become attenuated. Melons always grow best upon a hot-bed, i.e., a bed made of manure and trodden firm. It should be made up quite a week before the Melons are to be planted, so as to allow it to settle somewhat and also to decline to a suitable temperature if, as often happens, this is too high and would be harmful to the roots. Upon the manure should be placed two layers of whole turves, grass sides downwards, making small mounds of rather fine soil along the centre. If the bottom-heat has declined to about 80° or 85° Fahr. it is quite safe to plant. With a trowel make holes in the small mounds of soil, and sufficiently deep to dig into the upper layer of turves. Turn the young plants carefully out of the pots and plant them, placing the fine soil close to the roots and making it firm. I have found that Melons grow much better in a comparatively small amount of soil than in a large bed. A bed two turves deep and three turves wide will grow an excellent crop of Melons, with the help of a little top-dressing of soil if the roots begin to show on the surface. Nothing appears to suit the Melon better than turves cut from a meadow, or if these cannot be had fibrous loam in as large lumps as possible. This plant dislikes loose, fine soil; it is important to make the bed firm.

Keep the Melon house warm and moist, both at night and during the day, and do not stop the plants until they reach the top of the trellis. Side shoots bearing male and female blooms will form naturally. Do not fertilise the latter as soon as one or two appear, but wait until four or five are open together, then fertilise all of them. In early summer a plant ought to be able to mature four good fruits, therefore allow this number to develop if possible. If one flower is fertilised the embryo fruit will develop rapidly at the expense of any others formed afterwards, and these will never make good fruits. It is important, therefore, to fertilise several blooms at the same time, and choose the fruits that appear to promise best. When three or four fruits are set and are developing quickly stop the shoots two or three joints beyond the fruits, and also stop at the first joint any sub-lateral shoots that will subsequently form. An important point in Melon culture is to obtain strong healthy leaves on the plants, and these will form very early in their growth. They never form a sub-lateral growth, but only on the laterals. The possession of these is half the battle towards obtaining healthy plants and good fruits. Never let the foliage become crowded. If the first leaves have developed properly there will be little room for sub-lateral growth; this, therefore, must be frequently stopped.

When the plants are in flower and when the fruit begins to show signs of colouring the atmosphere of the house should be kept rather drier. Give liquid manure to the plants when the fruits are developing, and cease doing so when they are

ripening; clear water, however, must still be given. It is a mistake to keep the bed of soil dry when the fruits are ripening, the roots are still alive and need nourishment. On the other hand, keep the atmosphere dry or the fruits may crack. An excellent method of suspending the fruits when they become so heavy as to need support is by means of pieces of fish netting tied to the trellis and enclosing the fruits.

The varieties of Melons now in commerce are legion, so I forbear to name any; most growers have their own favourites. A. P. H.

## THE FLOWER GARDEN.

### THE WHITE PINK AS AN EDGING.

THE accompanying illustration shows the beauty of a border when it is margined with Pinks. Any hard edging in this instance would have spoilt the picture, and those who contemplate alterations now in the margin or actual formation of the border

in March and April, though from some cause they produced much less than the usual harvest of seeds; they scarcely had a period of rest during the past summer; they grew freely, putting in strong hearts to the plants, and it is not surprising to find that they have been constantly in flower since September last. I could gather handfuls of bloom at the present moment, though its beauty is marred by the weather. It does seem a pity that all this floral force should be spending itself in midwinter, it would be much more welcome in March and April, when, it is to be feared, there will be a dearth of it. If, as it is feared, the crowns of the plants formed last summer are spending their strength for nought, a scarcity of flowers from these crowns may be anticipated. We must look to the formation of new crowns in early spring to supply the floral effect in April and May.

In order to prevent as far as possible this abnormal winter bloom, I tried the experiment of lifting in October a number of plants which were replanted with little attempt at division, but with small effect on the production of bloom. The force was in the plant, and it found expression in bloom. Perhaps a spell of hard frost might have



AN EDGING OF THE OLD FRINGED WHITE PINK.

should remember the importance of massing together good things, with a careful sequence of colouring. Of all flowering plants the Pink is among the most satisfactory. Its drifts of blossom appear in June, and in the winter we get the full value of the silvery foliage, which is almost as precious as the blossom of summer. The old fringed white has almost gone out of cultivation, but I prefer it to the big-bloomed varieties such as Mrs. Sinkins. T.

### THE FLOWERING OF THE POLYANTHUS.

THE Polyanthus has had a flowering season extending over a whole year. The wet summer of 1902 encouraged a vigorous growth in the plants; they were deprived of their usual prolonged summer rest; they bloomed through the winter of 1902-3; they were in fairly good bloom

a deterrent effect, and yet it might only be a case of repressed energies certain to break forth again on mild weather following the frost.

I have had but very little autumn bloom indeed among Auriculas, but they, being always under glass, were not subjected to the conditions of weather experienced by the outdoor Polyanthus. They are already showing signs of movement in the direction of spring growth. In another month the most interesting season of the Auricula will have commenced, and it is a great advantage to have them in a house in preference to a cold frame, which can be opened only in fine weather. I am anticipating with great interest the blooming of a number of plants from seeds obtained from a semi-double variety. The double-flowered varieties are very few, and they are not recognised as a class by the National Auricula Society. Still they have a fascination for me, and I am doing my best to extend the number of double forms in cultivation. R. DEAN.

## GARDEN ORNAMENT.

## LEADWORK.

**I**N many of the fine gardens which surround our splendid old English country houses will be found decorating them with exceeding charm, superbly sculptured capitals of classical columns, sometimes wrongly, indeed generally so, called Italian "well-heads." The majority are usually described as coming from Venice, where, strange as it may seem, there are no wells, and consequently no "well-heads." Built upon piles and artificial stone mounds, Venice covers seventy-two islands or shoals, intersected in all directions by hundreds of salt water canals. Hence all the fresh water used for household purposes has to be caught in rainy weather from the heavens above in cisterns built on the Byzantine system. The mouths or openings of these cisterns are usually circular, and not infrequently elaborately sculptured, and some of these, the smaller ones, have been sold to enterprising foreigners, and set up in English and French gardens with good effect. The finest example still remaining is the noble one in the courtyard of the ex-monastery of San Sebastiano, by Sansovino, which has often been copied in various materials, from marble to copper, forming an admirable receptacle for very large plants.

Another fine example of this highly decorated cistern aperture will be found in the Campo San Giovanni e Paulo. It is richly decorated in the Renaissance style, with sporting *amorini* (cupids) and armorial bearings. Indeed, all over the wonderful city are to be found numerous circular and richly-sculptured "well-heads," as they are erroneously called, originals and copies of which are frequently met with in our more majestic gardens. A few of these have been designed to represent immense capitals of classical columns, such for instance as the two magnificent specimens which adorn

with such striking effect the lawns of Kingston Lacy. These are evidently genuine Venetian cistern-heads of the best period of the Renaissance, of the same class as the beautiful one by Sansovino at San Sebastiano, which is signed by his name.

Fresh drinking water was brought to Venice in former times from the mainland in feluccas, and sold about the streets by women who wore a very curious costume, exactly resembling that of the Welsh peasant lassies, consisting of a tall black felt hat, a short petticoat, and an apron. On their shoulders they carried a yoke like our old-fashioned London milkmaids, from the ends of which dangled two buckets. Many people who have not yet passed middle life can well remember their plaintive cry of *a'ò*, or water, fresh water! Modern improvement has swept them and their calling away, and now ugly leaden pipes of prodigious length which run along the railway viaduct, linking Venice to the continent, brings thence the supply of drinking water to the Queen of the Adriatic.

The Venetian cisterns, however, still remain, and their often elaborate decoration might easily be reproduced for decorative plant-pots, and introduced to break up the monotony of our lawns, even in comparatively homely gardens. It is, however, next door to a crime to tempt their owners to sell the originals. Has not Ruskin cursed anyone who removes a single stone from the most beautiful and romantic of cities?

All over Italy, a country rich in classical ruins, the capitals of columns will be found converted into flower-pots or pedestals for statues and sundials. During the long period of the Renaissance an amazing number of ruined temples and monuments were wantonly destroyed, and their materials used up in the decoration of churches and palaces. This was notably the case in Rome, where rows upon rows of beautiful columns, which had resisted the effect of time and the vandalism of the barbarians, were thrown down and carted off to adorn the 365 churches and basilicas of the capital of Catholicism. Their capitals were in many instances preserved, and turned to use as decorations for gardens and courtyards, when they were, for some reason or other, not required for the new purpose to which the columns they once crowned were devoted. The same thing occurred at Naples, and in the gardens of both cities beautiful Corinthian and composite capitals will often be noticed degraded into flower-pots and sundials. There were some magnificent specimens in the splendid Ludovici Gardens, which the cupidity of modern speculation has wantonly destroyed and replaced by streets of hideous jerry buildings. There was nothing in the world to equal the loveliness of these gardens, which were literally a continuation, so to speak, of those of Salust, whose site they occupied. Their secular umbrella Pines, their Ilex groves, and their stately architectural terraces, peopled, yet not crowded, with well-arranged statues, sundials, and column capitals, formed a unique *ensemble*, the delight of poet and painter, who alike haunted them, to enjoy not only their manifold beauties, but also



A CHISWICK VASE.



A LEADEN VASE AT CHISWICK HOUSE.

the glorious views of the Eternal City which they commanded. The wanton and greedy destruction of the Orti Ludovici was, together with the destruction and levelling to the earth of the Church of the Servi in Venice, the most monstrous act of vandalism committed in Italy last century.

The introduction of classical capitals of columns into garden architecture dates back in Italy to the beginning of the fifteenth century, and it is worthy of imitation, for the effect is admirable; the richly decorated capital resting upon the green sward, or rising from the centre of a group of natural Acanthus leaves, is charming, and if it be possible to chisel out a sufficiently large hole to insert a leafy plant it would be difficult to find a more graceful kind of vase. An equally delightful effect can be obtained in such fortunate gardens—and they are numerous—as contain the ruins of some Gothic abbey or priory, by converting the capitals of clustered columns to the same purpose.

At Walsingham Priory in Norfolk several noble capitals, whose columns have disappeared ages ago, have been turned into gigantic flower-pots, from which the tendrils of the Periwinkle, with its pale blue flowers, pour over in a graceful cascade of foliage and bloom, not concealing but displaying the time-worn sculpture to charming advantage. One masterpiece, representing an ancient marble tomb, presumably of Italian workmanship, but far more likely of the late Greek period, at the time of Alexander the Great, is in a garden in Somersetshire. This is a proof, if proof were needed, of the exceeding art wealth of the country. Surely it is more worthy of a museum than of a garden where it is exposed to the effects of our changeable climate.

The greatest care, however, must be exercised in the arrangement of these "well-heads" and



capitals be they Greek, Roman, Norman, or Gothic. They must appear to have come into position almost of their own accord, as if in the course of centuries they had discovered for themselves a new purpose to which to devote their grace and beauty. Any attempt at trimness destroys the picturesqueness of the effect they should produce, and it requires the eye of a true artist to select the exact spot where they should rest, amid surroundings exactly suited to their architecture and colour.

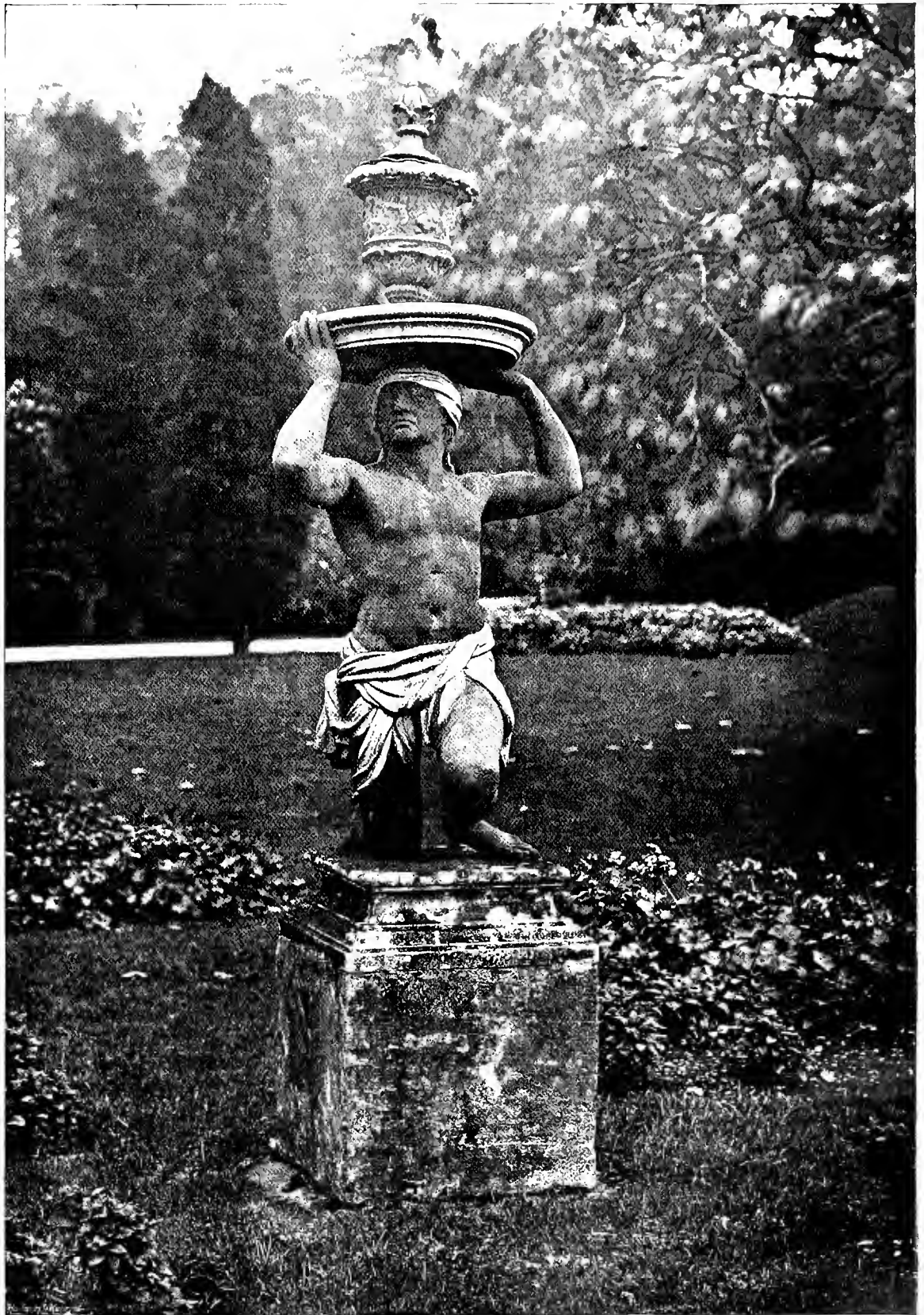
The introduction of anything architectural into a garden, especially an English garden, is matter for much thought. In certain places even a huge terra-cotta pot lends charm. A row of monster pots, with Orange and Lemon trees in them, in the old gardens of the Villa Lante at Frascati has been painted again and again by famous artists. They seem to have ranged themselves by some occult process, known only to themselves, to have grown up spontaneously in the vast beds of Violets, Pansies, and Verbena which surround them. The yellow of the crumbling wall behind them is rendered all the more vivid by their dull red. Between two of the largest you can obtain a never-to-be-forgotten view of the far-stretching Campagna and of distant Rome. A great artist, whose name is long since forgotten, placed those venerable terra-cotta pots in position some three hundred years ago. May they still stand where they are, with their treasures of deep emerald leaf and golden fruit, three centuries hence.

## THE CACTUS DAHLIA

AT HOME AND ABROAD.

**B**RITISH hybridists have practically held the monopoly of the output of new varieties of the Cactus Dahlia.

The interest this flower has awakened is phenomenal, not only in England, but in many other countries where the climate is anything but temperate. The home trade is now a very extensive one, and the interest taken in growing and competing bids fair shortly to equal that of the Chrysanthemum. In this respect the Scottish growers show as keen a desire to excel as the growers farther south, and from Wales also come very fine flowers and new varieties. Ireland, also, whilst not as yet to our knowledge contributing to the list of varie-



THE KNEELING SLAVE AT MELBOURNE.

ties, is yearly importing new varieties from England in increasing quantities. Leaving the British Isles we find our near friends the Dutch keenly alive to the necessity of raising new and improved varieties in order to compete with the English.

Every year many Dutch firms import largely from England, and offer in exchange varieties of their own raising. As yet, however, the growing of Dutch flowers is not general here, although a few sorts have been catalogued, a notable feature

of the Dutch flowers we have seen being the colours, which were of soft and pleasing tints. Scarcely behind the Dutch follow the German and Belgian growers, Germany producing a large number of new flowers; and yearly we receive offers to exchange novelty for novelty, but firmly declined on our part.

Probably next to Holland Germany is the largest buyer of new flowers from England. Belgium is naturally allied to Holland as regards the Dahlia, and so we go on to Italy, where the fever is just beginning to rage, as also in Sweden, and in a minor degree other Continental countries. We had almost forgotten France; but here there are quite strongholds of Dahlia growers, and the old offers to exchange novelties are repeated. Several French sorts of the decorative type have found their way to England. The growing of the old decorative form still seems to thrive in France, and few, if any, new flowers of the Cactus type have been catalogued by English raisers. The growers of France are evenly scattered from Paris to the Mediterranean Sea, and the culture of the Dahlia is evidently a feature with several prominent nurserymen.

To come to our Colonies, India is trying the Dahlia, roots having gone to Calcutta and Bombay, and, if reports are true, succeeded well, as also in Malta and Egypt on the coast. It is, however, in Tasmania, Australia, and New Zealand that the Dahlia is appreciated to its fullest extent. The number of amateur enthusiasts there is considerable, and every year shows are held as in England, where the Dahlia figures largely and excites considerable competition.

The amateur growers import the new flowers every autumn quite as largely as the nurserymen, and the English gardening papers are studied to watch the strides made in raising new flowers from these regions. Until now there has not been any great importation of Colonial varieties by the English growers, although one or two raisers of Australia and Tasmania have made considerable progress in that direction. Altogether, the trade with the Colonies is a pleasant one, the striking feature in all dealings with our colonists being the straightforward manner in which they transact business, interesting letters coming to hand every year from growers in the Antipodes, where, for the comfort of English gardeners, we might mention that there are numerous enemies to fight and many disappointments.

From Cape Town to the Transvaal capital there are Dahlia growers, not so advanced as the Australian as regards shows, &c., perhaps, but still the Dahlia is there, and is greatly on the increase, a recent member of the National Dahlia Society only to-day turning up (by letter, of course) at Pretoria, asking for the Dahlia. Poor fellow! probably he was homesick, and the sight of a Cactus Dahlia in his garden would encourage him. He was a grower of the best in England, and we hope to send him a comforter in the shape of a dozen and a-half of Britain's best.

We have now travelled over a good portion of the Globe, and will wander back north-west to America, notably the United States. Unless we are much mistaken, the Canadians are too busy growing into a nation to think of Dahlias to the extent they ought, but dotted here and there are growers who import yearly. It is, however, in the States that interest in the Dahlia becomes more apparent.

As to exhibiting, we have no very definite news to hand of this in America; but no doubt they have Dahlia classes generally, and we know of one grower who carried off all the prizes in the classes open to him, some eight in number, including prizes of considerable value at one show. The American raiser is not yet noticeably to the front, unless the varieties never find their way to England, which is surprising.

In closing these few notes on the Dahlia, we should like to mention that with few exceptions it has been our lot to receive the most friendly and pleasant letters from Cactus Dahlia growers all over the world, and, in fact, it has often surprised us to find so general and pleasant a tone, not only

from colonists, but foreign growers as well. Possibly the Cactus Dahlia exerts a softening influence both at home and abroad.

Berkshire.

P. P.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### TABLE PLANTS.

WITH the difficulty of providing such plants for use during autumn and winter every gardener will be well enough acquainted; but his anxiety does not stop here, for annually there is a growing demand for flowering plants for this particular purpose. True, it is difficult to dispense absolutely with the use of ornamental foliage plants, and many of these when well grown are very handsome. Of these perhaps Crotons, Pandanus, and Dracænas are generally used, but to render them favourites they require to be well grown, and the foliage highly coloured. Early propagation is advised as the secret of having them in proper condition for use by the coming autumn, and although the propagation of Crotons was advised at the beginning of the year, there is yet time to propagate and to grow the whole of these plants into good specimens by the time mentioned. Among flowering plants Begonia Gloire de Lorraine is one of the most useful. Small plants are the best for table requirements; commence propagating them at once by selecting good sucker shoots for cuttings. Insert these singly in 2½-inch pots in fine leaf-soil and sand, or obtain and dibble among sand a few of the leaves that are free from disease, and with the entire length of the petioles attached; plunge the pots in a bottom-heat of 65° to 70°, and maintain a moist atmosphere. Gesneras, the new hybrids, can be raised from seeds, which, if sown at once, will produce by the autumn plants that will be admirable for any purpose, especially for table decoration. Cyclamens for this purpose require careful attention. A few of the corms should be grown on a second year, as these usually grow into bigger plants and produce more flowers. Sow at once a few seeds of Primulas, especially the stellata varieties, as these when well grown and flowered make beautiful plants for the table. Other plants valuable for the purpose are Azaleas of the amæna type, together with Erica hyemalis and E. gracilis autumnalis.

#### ACHIMENES.

The tubers, which during the winter have been dormant, should be overhauled and selected for immediate repotting into fresh soil. Leaf-soil, peat, a little dried cow manure, and sand form a compost that suits them well; but during the growing period they require to be shaded from strong sunlight, and with regard to heat and moisture to be liberally treated.

#### GARDENIAS.

These keep in a healthy condition by keeping them free of mealy bug as well as green fly and thrips; and this is not difficult if occasionally they are syringed with Bentley's Insecticide or with paraffin, one tablespoonful to every gallon of water. If they are planted out remove a portion of the surface soil and top-dress with fresh loam, wood ashes, and dried cow or sheep manure, those in small pots being shifted into larger ones as they require it. Cuttings, as soon as they can be obtained, should be inserted in pots, and the latter plunged in the propagating bed; another plan is to place narrow boxes, about 8 inches deep, on the top of the hot-water pipes. Fill these to about half their depth with broken pots for drainage, then a layer of Moss, and finally about 2 inches of sand in which to insert cuttings of the half-ripened shoots.

#### ANTHURIUMS.

These greatly dislike sour material about their roots. They should be repotted annually, or resurfaced with a compost of good fibrous peat, lumpy loam, sphagnum moss, and a few broken

crocks. The plants during the growing season delight in a moisture-laden atmosphere, with a temperature of 65° to 70°. J. P. LEADBETTER.  
The Gardens, Tranby Croft, Hull.

## FLOWER GARDEN.

### EDGINGS.

THE character of the edging depends largely on the surroundings. Where a formal edging is needed Box is one of the best evergreens that can be used; but to look well the blanks must be kept filled up, and during the summer clipping must be regularly attended to. The present is a very good time to make a new edging. A nice bordering may be made of flints or pieces of granite laid so that the outer edges are in a fairly straight line, and sinking the stones sufficient to prevent them from being easily displaced. Stones that are found locally are usually more in keeping with the surroundings than imported ones, and the former become quickly covered with moss and lichen. In the crevices between the stones many alpine plants will find just the conditions essential for their well-being, and many will quickly ramble over the stones and out into the path, breaking in a delightful manner the formality of the edging.

Aubrietia deltoidea and its varieties make a very pretty edging. Where it thrives the blue Gentiana acaulis is very striking. In many cottage gardens one sees a double bordering of Thrift, sometimes nearly a foot in width. Mrs. Sinkin Pink, the double Daisies, Arabis, and many others are also beautiful and useful for this purpose. But whatever is used the ground must first be properly prepared or the edging will never be in a satisfactory condition. The soil should be well worked, raked, and made firm.

### BEDDING PLANTS.

Pelargoniums (Geraniums) which were struck in pots or boxes last autumn will now require to be potted singly or boxed; where possible the first method is preferable, but if a good layer of spent Mushroom bed manure, or something similar, is first placed in the bottom and the remaining soil is fairly "rough," good results may be obtained from boxes. A light syringing twice or three times on bright days will prevent flagging. Standard Fuchsias, Heliotropes, &c., that have wintered cool should now be pruned and brought into a warm house.

Insert the necessary cuttings of such as Iresine, Alternanthera, Ageratum, Heliotrope, Coleus Verschaffeltii, and place in a brisk bottom-heat.

### SOWING GRASS SEED.

If it is intended to sow any lawn grass seed the ground should now be thoroughly prepared—good digging is as necessary for grass as for herbaceous plants, choosing only fine days and when the soil is in a good workable condition. The date of sowing will vary, according to the locality, from the end of this month to the latter part of April. The soil must be made firm and well worked, keeping the surface level and to the full height of the lawn. If it is possible to lay a row of turves around the outsides, this will be found a good guide in keeping the remainder level. When sowing choose a fine still day, and sow as evenly as possible, using the best quality seed procurable, and lightly cover it with a wooden rake. When the grass is well up it will be advisable to roll with a heavy roller before cutting, which should be done with a sharp scythe.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

## KITCHEN GARDEN.

### EDGINGS.

THIS is a good time to set about the repair or renewal of edgings. Where they have become rather thin the best plan is to clear out a good length and renew entirely. Before relaying the part to be operated upon should receive a dressing of good turfy loam, for where edgings have stood for several years the soil will have become exhausted. A fine dry day must be chosen for this work, as the soil must be well beaten and trodden to the proper level. Care must be taken

that the trench is cut to the exact width of the path. The Box plants should be pulled into single roots and shortened to 4 inches long, and laid thinly and evenly, making them firm at the roots as the work proceeds.

If the walk has become soft and much soil mixed with the gravel it should be cleared away to the depth of several inches and a fresh coating put on. After the whole work has been completed frequent rolling will be beneficial. An inspection of all garden paths should be made, and where repair is needed this is a good time to begin, before the busy season is with us. An effort should be made to give all walks a sprinkling of new gravel every spring. A good layer of ashes between garden plots where there is much traffic will be found a great advantage in wet weather.

POTATOES IN POTS

that were placed in a heated vinery early in January will now have made good growth, and should be removed to a slightly cooler house. A sprinkling of some good artificial manure may be given previous to earthing up. For the latter good turfy soil is required to which has been added a little leaf-soil. Fill the pots well up with the compost, making the soil moderately firm, and place them as near to the glass as possible.

EARLY PEAS IN POTS

are now growing freely, and short stakes will soon be required. They may be thinned out now to six or eight plants and grown cool and hardy. Onions, Leeks, Cauliflower, and other seedlings under glass must be carefully attended to, and on no account allowed to become drawn. Stand the pot or boxes close to the glass and water sparingly. On a south border or other warm corner the sowing of early Cabbage, Cauliflower, and Lettuce may be made. Protection must be afforded either by a thick covering of Spruce branches or a few hand-lights placed over them will be sufficient.

SHALLOTS.

Where the weather is favourable and the ground in condition these may be planted. The bulbs may be planted 3 inches deep to begin with, as they are liable to grow out of the soil. The soil may be drawn back from the bulbs after they have taken hold. Plant on a deeply-trenched and well-manured border.

THOMAS HAY.

Hopetoun House Gardens, N.B.

FRUIT GARDEN.

EARLY VINES.

THESE will now have the fruit set, and the sooner the bunches of free-setting varieties are thinned the better. Remove all badly set and ill-shaped bunches, and secure a full crop of medium-sized ones, leaving one only on a shoot. Pay daily attention to tying down shoots and stopping laterals. Pinch out the points of the shoots at the second or third leaf beyond the bunch, and all laterals at the first leaf. Avoid overcrowding, as the best leaves must be fully exposed to light and air.

Give a sprinkling of Thompson's Vine Manure after the Grapes are thinned, and water with tepid water. Keep the night temperature at 65° to 68°, falling 5° on cold mornings, and 75° to 80° by day with sun-heat. Close the house early, damping the paths and walls, care being taken not to damp the pipes when hot. Ventilation must also be



BEGONIA GLOIRE DE LORRAINE IN THE GARDENS OF COLONEL WILKINSON, ASHFURLONG HALL, SUTTON COLDFIELD.

carried out carefully at this season, always avoiding cold draughts.

EARLY MUSCATS.

These Vines, which were started early in December, will soon be in flower. Increase the temperature to 68° or 70° at night, 80° by day, with a further rise of 10° on bright days. The atmosphere must be rather drier when the Vines are in flower, and also keep the points of the bunches up to the light. A supply of Black Hamburgh pollen should be saved if possible to fertilise the Muscat flowers, doing this with a camel's hair brush; also run the hand lightly down the bunches. Close the house early, give air early also, as by liberal ventilation a strong healthy foliage will be secured that will stand the early summer sun without scorching.

SUCCESSION VINERIES.

The Vines in these will now be breaking into growth, and should be syringed with tepid water two or three times daily in bright weather until the bunches show, when direct syringing should be discontinued. Remove the weakest shoots gradually as soon as it can be seen which bear the best bunches. Keep a temperature of 55° to 58° at night, and 65° to 70° by day. Close the house early on bright days. Damp the paths once or twice weekly at closing time with weak liquid manure.

LATE VINERIES.

If Gros Colmar and Lady Downe's Seedling occupy the greater part of the house it must now be closed, so that the Vines may have the benefit of the best season of the year to complete their growth. Generally speaking, the two varieties above are the most popular late Grapes, and require a long season of growth; they also finish better when started early than by using extra fire-heat in the autumn. Appley Towers is a splendid keeping late Grape, which requires plenty of space. Mrs. Pearson can also be strongly recommended as a second white; it will keep for months when bottled in good condition. See that the border is watered,

if dry, with tepid water. A temperature of 50° at night and 65° by day from sun-heat will be suitable.

Impney Gardens, Droitwich. F. JORDAN.

THE INDOOR GARDEN.

BEGONIA GLOIRE DE LORRAINE.

NO warm greenhouse in winter is now considered to be properly furnished unless it can show a display of this Begonia, whose rapid leap into popularity has been most remarkable. A few years ago no one had heard of it, to-day it is difficult to find a garden where it is not grown. The accompanying illustration shows what a wealth of blossom a group of this plant will produce. It is a display that could be equalled by few, if any, other winter-flowering plants, and reflects greatly to the credit of the grower's skill. Begonia Gloire de Lorraine is one of those plants which if grown well is a delight to all, both cultivator and visitor, but if one only partially succeeds with it, then it is indeed disappointing. H. T.

NERINES.

WHEN a grower has mastered the cultivation of a class of plants he turns his attention to their improvement, either by prolonging the flowering season or increasing the size of flowers and improving the plant generally. To reach the object he has in view can only be obtained by hybridising, and to growers of the beautiful autumnal-blooming Nerines I would say select and hybridise, and by so doing increase the stock of your plants. Nerines are very prolific seed producers. Mr. O'Brien, when manager at Messrs. Henderson and Sons,

raised many Nerine varieties, among them being the beautiful Manselli, atro-sanguinea, and others.

M. Leichtlin of Baden-Baden raised from seed N. Novelty, a very free-flowering hybrid, by fertilising pudica with the crimson-coloured corusca. He also raised N. tardiflora and its variety major, which are almost equal to Manselli. Mr. Elwes, who has a collection of over 1,000 pots, has also raised many beautiful varieties, some receiving first-class certificates and awards of merit, the latest to receive this distinction being N. Miss Carrington. Mr. Moore of Glasnevin has also done good work in breeding and perfecting this race of plants.

No difficulty need be experienced in obtaining seed, which should be sown directly after being taken from the plant. Sow in pots, using a good porous compost of three parts loam, one part leaf-mould, adding some sand. Place the seed evenly in the pots and cover slightly with sand. The seed is generally slow in germinating, but this difficulty would be surmounted by placing on a shelf in the stove, removing the seedlings as they advance to an intermediate temperature. Here they would grow freely without shade for the first six months. Then they should be transferred to pans and kept in the same temperature.

The growth of the plants is somewhat rapid, no season of rest being required until the bulbs reach flowering size, which would be about three years from the sowing of the seed. After this long period of growth the bulbs should be allowed to rest. This rest consists of entirely withholding water, and plunging them in a frame where they are fully exposed to the sun and are subjected to a thorough baking. "They are so difficult to flower," is what we hear from the majority of growers. To those I respond, "Give them a fair treatment when growing, a fair season of rest, and then you should not be disappointed." The following particulars on the treatment of the bulbs' flowering size may be interesting to readers of THE GARDEN.

When the plants go to rest, about the month of April, they are plunged in a frame, water being altogether withheld and the lights taken off at every opportunity. Here they remain until the month of August, when they are overhauled and all re-potting done that is necessary, shaking every particle of soil from the roots. Activity at the roots will be apparent even at this early date, and this necessitates careful potting. Some growers wait until the plants are out of flower before re-potting, but great injury to the plants is caused by this practice, as the roots are then in an advanced stage of growth. After re-potting in such a compost as the one recommended for seedlings they are again placed in the frame, where they remain until showing flower.

They are then taken out, allowed to stand in a pan of water to get thoroughly soaked, and placed on a shelf in the greenhouse where they receive plenty of light, and the flower-spikes should develop to perfection. After flowering they should not be placed in a dark corner of the house, but on the shelf in full sunlight, and be treated as ordinary greenhouse plants, with an occasional dose of weak liquid manure. That is the treatment as afforded the plants at Colesbourne, the essentials of which may be summed up thus: Firm potting, a good season of growth, clean plants, and a long rest.

W. H. WALTERS.

Colesbourne Park, Gloucestershire.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### MODERN POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that Mr. Wythes, in his article on some of the newer vegetables for 1904, page 63, confines his Potato references to a somewhat limited few of which he has had experience. As it happens, however, there is a number of high-class varieties in the market just now that are certainly preferable to the older sorts mentioned by your correspondent, such as Satisfaction and Reliance, and in view of this fact, also bearing in mind that seed tubers are now being obtained and prepared for spring planting, I venture to call attention to several modern Potatoes that are well worth growing.

The fabulous prices paid for a few sensational novelties do not interest me, and, like Mr. Wythes, I know nothing of the eating qualities of either Northern Star or Eldorado, because I have never met a man yet with courage enough to boil one, and it must be remembered that Discovery, about the table qualities of which Mr. Wythes speaks highly, is not a food commodity at twenty shillings a pound for seed sets. I recently heard of a case of a man who became acquainted with the flavour of Northern Star in a manner that was supposed to upset his digestive organs afterwards. He purchased a pound or two of seed tubers at a ruinous price, and foolishly left them on a shelf in the kitchen. His better half, who knew nothing of Northern Star or other gold mine Potato, cooked them without thinking, and—but perhaps it is well to draw a kindly veil over the rest of the story.

Turning to the varieties that are of proved merit, and may be obtained at reasonable cost, I notice Mr. Wythes speaks well of Ringleader and Ninety-fold in the way of first earlies. They both did well with me last year in the way of crop, but, strange to say, when I came to lift the main portion which I left to ripen I found three parts of the tubers of Ninety-fold affected by disease, but the Ringleader was practically free from it. The decision I have naturally arrived at is that Ninety-fold is more liable to disease than Ringleader, and consequently the latter is the best variety to grow. Speaking of early Potatoes, mention must be made of that splendid modern variety, Sir John Llewelyn, which has now had an extended trial, and is spoken well of in all quarters. Duke of York, an older Potato, holds its own as one of the best of the first earlies, and being of strong free habit it succeeds well in places where varieties of more tender constitution are apt to fail.

With reference to midseason and main crop Potatoes, I observe that Mr. Wythes can only speak of Evergood from hearsay, as he has not grown it. After an experience of two seasons, I am of opinion that this is one of the best of the new main crop Potatoes, and well worth a trial by any who are as yet unacquainted with it. The tubers are roundish, white-skinned, and shallow-eyed, and the variety has disease-resisting qualities.

It is not often that a good coloured Potato is put on the market, but I think we have one now that will take the place of the well-known Beauty of Hebron, which has deteriorated of recent years. The variety in question is King Edward VII., a pretty white kidney with flushes of pink round the eyes. It is a heavy cropper, a disease resister, and, unlike the majority of coloured Potatoes, it possesses capital eating qualities.

About three years ago Messrs Dobbie and Co. introduced The Factor, which is now getting widely known, and is well worth growing. It is a white, oval-shaped Potato of good form and excellent quality; it is a strong, robust grower, and wants plenty of room, but it is a splendid cropper, and one of the best of modern main crop potatoes. So far as disease is concerned, I had no trace of it amongst tubers of this variety last year.

Chiswick Favourite, a white, round Potato, introduced by Messrs. J. Veitch and Sons a few years ago, does not appear to be grown to the extent that its merits deserve, as it is amongst the best of the main crop varieties. In the early days of its history Chiswick Favourite received a first-class certificate from the Royal Horticultural Society, and events have proved that the honour was not misplaced. I can strongly recommend it to anyone on the look out for a good main crop Potato. It is very vigorous, but not unduly gross. Other modern Potatoes well worth attention are Royal Kidney, a second early variety, introduced in 1901; the Crofter, which came out in 1898; and Cigarette, a very handsome round Potato. Others might be mentioned, but I have said enough to show that there is no lack of choice amongst comparatively new Potatoes without considering any high-priced sensational novelties. If any excuse is wanted for urging the culture of these modern Potatoes I offer it in the fact that, apart from being good croppers and of superior qualities, they do not suffer from disease to anything like the extent that varieties do which have been many years in cultivation. The secret of this may be that the constitutions of strong modern Potatoes are as yet unimpaired, and consequently they are able to repel the attacks of disease. I do not claim for any Potato, including even the famous Northern Star, that it is perfectly disease-resisting, but while a variety is new and strong it is not so liable to attack as when its constitution is worn down by years of cultivation.

G. H. H.

### APPLE NORTHERN SPY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to "W. S.," enquiring about this variety, I can say that it does very well in the South as a bush. It is an upright grower, and the branches should be regulated so as to expose the fruits well to light and air, otherwise the delicate colouring, which so much enhances the value as a dessert Apple, will be lost. It is a moderate cropper, but of excellent quality, sweet, crisp, and juicy. As it is in season from January to April, it deserves to be widely grown. In cold soils and situations it will well repay the protection of a wall. Another point in its favour is immunity from American blight.

W. CAMM.

The Gardens, Ashby Saint Ledgers, Rugby.

### THE GARDENING CHARITIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When reading your able leading article in the issue of the 30th ult. it occurred to me that it should be the means of securing many readers, and especially gardeners, to become subscribers. Being a member, I am deeply interested in its welfare, and every year, when the election comes round, I look over the list to see the names of those who have become candidates, to find frequently the names of those I little expected to see; also to note the names of many that have applied three, four, and sometimes five years—and then are not successful—added to this ever-increasing numbers. If this continues at the same rate for the next twenty years it seems difficult to realise what portion will be successful then, seeing the large number that could not be put on in 1904. According to your statement, it shows how few do anything to assist it, compared to those who could did they so wish. It should be made plain that those who do not contribute to its funds have only a poor prospect should they need it, seeing those that have contributed a long time have a large number of votes to start with. I consider this is as it should be, and should be a great impetus to young men to join.

I am pleased to learn that an extended effort is about to be made to diffuse knowledge respecting its working, and by trade houses allowing a leaflet to appear in their catalogues. Recently, when lecturing at one of the mutual societies, I was astonished to find comparatively no one who knew anything of its working and benefits. "R. D." in a recent issue stated he had brought the charities

before the members of mutual societies. I did the same a few weeks ago, and at the close I was told that a gentleman in the room would have started it by giving 10s. The committee promised to see what could be done at the next meeting. I am convinced much help may be given to this and the Gardeners' Orphan Fund if the members of the mutual societies would start by having a collection day three or four times a year. Surely no member would refuse to contribute something. It may be said many could not afford to do much. Let us take a lesson from the small sums given to other charities, and note the amounts raised in this way. Added to this the Gardeners' Benevolent Institution offers advantages to subscribers if they raise £10 10s. in one year. What greater thanks could a society give to a member that had done good service than by placing him amongst the life members? J. CROOK.

## NURSERY GARDENS.

MESSRS. HILL AND SONS, LOWER EDMONTON.

**A**T the present time the Barrowfield Nursery is devoted almost entirely to Fern culture. Not only are the market sorts grown in almost countless numbers, but great attention is paid to the culture of all the choicer sorts, and the collection is one of the most complete to be

found. The nursery was first started about sixty years ago by the late Mr. J. Hill, who died about two years ago at the age of eighty-one. Mr. J. E. Hill, his son, who continues to carry on the nursery, started with his father at an early age, when Carnations, Pinks, Auriculas, Violas, and other plants were grown. About seventeen years ago Fern growing was started, but the elder Mr. Hill did not favour this innovation. However, the son prevailed, and, as at that time the markets were good, it was soon found to be a profitable departure, and from a very modest beginning this branch has steadily developed. New houses have been added from time to time, until now the nursery land is nearly covered with glass, and Mr. Hill has been singularly successful in the raising and cultivation of Ferns. The splendid exhibits which he has made during the past six years have given proof of the best culture. Mr. Hill is a firm believer in keeping a low temperature during the autumn and winter, finding that Ferns so treated start with much more vigour early in the spring, when a higher temperature may be given with advantage.

At the time of our visit—January 12—it was not the most favourable season to see Ferns, but we found much of interest. A most interesting corner was that devoted to a number of Ferns recently imported from Brazil; these included some very distinct things—a *Pteris* which at first sight appeared a little like *P. umbrosa*, but with more fleshy fronds; they were divided in three frondlets, somewhat after *P. tripartita*. Another might be a

narrow-fronded form of *Asplenium Nidus*, but, not being fertile, we could not determine. Several other pretty things were seen in this batch, some of which may prove to be species not hitherto in cultivation. *Platynerium* are a speciality, and a fine specimen of *P. grande* was noted. *P. Hilli*, *P. Veitchi*, *P. aethiopicum*, and *P. angolense* were also seen in good condition. Of Tree Ferns, *Dicksonia antarctica* is extensively grown, and was seen in all sizes from small seedlings to large specimens, with good stems, all of which were raised in the nursery. Of *Alsophila australis*, in large plants, and *Brainea insignis*, which until a few years ago was a very rare Fern, Mr. Hill now has large quantities in various sizes. *Lomaria attenuata*, remarkable for the bright rose tint in the young fronds, is well grown. *Davallias* are quite a feature, and include such choice sorts as *D. aculeata*, *D. epiphylla*, *D. Veitchi*, *D. assamica* (a most distinct and beautiful species of recent introduction), *D. repens*, and many others, the pretty little *D. parvula* and *D. alpina*, and, lastly, a fine batch of seedling plants of the beautiful *D. pallida* (mooreana). *Acrostichum crinitum*, *Gymnogramma schizophylla gloriosa* and the distinct *G. caudiformis*, and *Nephrolepis Fosteri* (a new American Fern, a little variable, but in its best form most distinct and attractive) were others.

A few of the best *Gleichenias* are very successfully grown. Fine specimens of *G. dicarpa longipinnata*, *G. flabellata*, *G. semivestita*, and *G. rupestris glaucescens* were seen. In addition to the ordinary market sorts of *Pteris*, many others are grown, namely, *P. tricolor*, *P. aspericaulis*, *P. nemoralis variegata*, *P. Victoriae*, and *P. Reginae cristata*. The doryopteris section included *Ludens*, *Duvali*, *sagittata*, and *pedata*. At the time of our visit *Adiantums* were not at their best, but it was noted that the collection, which includes upwards of 100 species and varieties, represented all the best sorts. Several Ferns which are rarely seen in large quantities have been successfully raised by Mr. Hill. Among these we noted large batches of *Osmunda javanica*, *Todea arborea*, and *Asplenium lucidum*. These are all very useful Ferns in a small state.

*Asplenium Nidus* is a great favourite with Mr. Hill, and he was one of the first to take it to market in quantities, and has always kept up a regular succession. It is in a small state that it sells best, but it is also grown on into 4½-inch pots and onwards, some making very fine specimens. I may here refer to a most distinct variety which Mr. Hill has selected and named *A. Nidus corrugatus*; it has fronds of remarkable substance, and they are distinctly corrugated. If this can be perpetuated it will supersede the older form as a market plant. *Polypodium aureum* is grown extensively, some large plants in 6-inch pots being extra good. Here, again, we find a distinct variety having the beautiful soft hue of *P. glaucum* and the vigour and large fronds of *P. aureum*; the fronds also have a good drooping habit. *Pteris major* is now the most popular of all this family, and is grown in very large quantities. *P. trenula* is also a favourite. *P. Wimsetti* is grown, but may be superseded by *P. Wimsetti multiceps*, a variety for which Mr. Hill gained an award of merit in 1892, and which has since been found to make a good market Fern. *Nephrolepis cordata compacta*, *N. tuberosa*, and *N. exaltata* are extensively grown for market. *Davallia decora*, *D. dissecta*, and *D.*



GYMNOGRAMMA SCHIZOPHYLLA GLORIOSA IN BASKET.

bullata may be included with those grown for market, for, though not raised in such large quantities, they sell well at a good price.

Among other plants grown *Aspidistras* occupy one large house, many of the plants being well furnished with beautifully variegated leaves. *Ficus radicans variegata* is grown in quantities, but this has not proved quite such a good market plant as was anticipated. *Ficus repens* is always in demand; the shelves in several houses were filled with well-furnished plants, and Mr. Hill has a good variegated variety of this, which may prove more useful than *F. radicans variegata*. Mr. Hill also grows zonal *Pelargoniums* in large quantities both in 4½-inch and 3-inch pots. A. HEMSLEY.

## THE KITCHEN GARDEN.

### A VALUABLE EARLY POTATO.

SUTTON'S MAY QUEEN.

**W**HEN one notes the increased interest in Potatoes generally it may not be out of place to write about the good qualities of those that have proved valuable, and though May Queen is a new variety, after a severe trial last season it proved a decided acquisition. This variety was shown at the last Temple show of the Royal Horticultural Society, and attracted attention for its perfect shape and beautiful flesh; but the true test of any variety is its flavour or good eating quality, though tubers dug late in May or early June cannot compare with those better matured; May Queen was of excellent quality, and far exceeded my expectations considering the unfavourable season. For forcing under glass it is specially good, and the tubers grown thus were dry when cooked, and they matured more quickly than the Ashleaf. This is a white kidney, and it is more valuable, as it builds up in a short time a fair crop of usable tubers, and there is an absence of small ones. This is a great gain in a forcing Potato or for early borders in the open. Planted in February at the foot of a south wall, and the haulm covered with dry litter to protect from frost, we lifted tubers at the end of May, and quite a month earlier in cold frames planted in January. For pot culture it is most suitable owing to its dwarf top. This, of course, is equally valuable for frames, and when its good properties are better known it will become a great favourite. G. WYTHES.

### PEAS FROM MAY TILL OCTOBER.

EARLIEST SEASON AND VARIETY.

In the open ground the earliest crops should be sown in February, as soon as the soil is in workable condition, and in the south, if an early variety is sown, there will be a late May supply. The Pea is much harder than many think. I have noticed the blossoms resist frost if dry. I admit there are exceptions. For instance, when the plants are raised in heat and planted out the haulm at times is so weak that any sudden change of weather results in collapse.

FIRST DIVISION.

In sowing the first earlies a warm and well-drained border should be selected with a light top-soil, and in heavy clay land it well repays the grower to make the soil lighter by adding such materials as fine mortar rubble, charcoal, and burnt refuse and wood ashes. With regard to the variety for this work, I do not advise the true Marrows, especially in heavy soil or exposed positions. There are some splendid selections, as of late years there have been immense strides taken in the selection and crossing to get hardness with a free crop and quality combined. Even now one sees some very old forms of small round white Peas recommended in catalogues, but I do not think they are worth sowing. By this remark it must not be thought because things are new I regard them as necessarily superior. Why I object to the true Marrows for first sowing is that the seed is more sensitive to cold and moisture, and unless the soil is sufficiently warm to promote

growth the seed does not remain stationary, but decays, and the crop is lost. It is difficult to make up for lost time. The earliest sorts are mostly dwarf, and there is this advantage, that the plants can be grown closer together. Some require very little support, but I find even the very dwarf Peas are better if the haulm is kept clear of the soil, and it is an easy matter to give the plants support. For first sowing no one will regret giving Chelsea Gem a trial. This has now stood for some years the test, and it is one of the best of the dwarf early Peas; it is so well known that I need not describe it, but, being about 18 inches high, it can be grown close together. The pods are mostly produced in pairs, and are of excellent quality. There is a more recent introduction from the same firm called Acme, and well worth a trial; it may be called a larger Chelsea Gem. One of its parents was the old Stratagem. In the West of England probably Exonian is more grown than any other for first crop; it is a first-rate variety, 3 feet to 4 feet high, and very early. I have for many years grown Bountiful for early use; it is not a Marrow, but one of the most prolific varieties I know, a round blue seeded variety. Harbinger, a newer introduction, that was one of the best in the trials at the Royal Horticultural Society's gardens in 1901, is a splendid type. It may be classed as a superior American Wonder, pods longer, broader, and more prolific, very dwarf (under 12 inches), and a splendid amateur's variety for restricted spaces. Sutton's Duchess of York is also a grand early Pea, later than some, a 3 feet variety. For quality Early Giant and May Queen may be termed the best. These have a decided Marrow flavour, and are of medium growth, 3 feet to 4 feet, and in warm borders are most valuable. Another point with the strong-growing Peas is that it is an easy matter to stop the points of the shoots to induce dwarfness and earliness. No note would be complete that omitted Ideal; it is not unlike May Queen in quality, but very early, and one of the best flavoured Peas of the early section; it gained an award of merit in 1901. It will be seen there is no lack of variety, and others of equal quality could be named if necessary. G. WYTHES.

(To be continued.)

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

FLOWERS FROM KIDDERMINSTER.

Several delightful spring flowers come to us from Mr. Arthur Goodwin of The Elms, Kidderminster. One of the sweetest is *Iris reticulata* var. *Melusine*, which was referred to last week. The flower is as fragrant as that of *I. reticulata*, soft blue, with a broad line of rich yellow set amongst white on the broad fall. A little bunch of *Cyclamen Coum* reminds us of the cheery colouring and vigour of this species, which is far too little seen in English gardens. *Galanthus byzantinus* and *G. Elwesii* are two handsome Snowdrops. *G. Elwesii* has larger, more oval segments, a bolder flower altogether, but *byzantinus* has a gracefulness which *Elwesii* does not possess.

SOME WINTER FLOWERS.

I am sending a few sweet-smelling flowers for your table. I think I have sent you some of both before. The Winter Heliotrope and the Winter Sweet are now filling the garden with their rich fragrance, and I thought a few blooms would please you. I often think how very much poorer

those gardens are where these two interesting plants are not grown. They may be cultivated in any out of the way place where scarcely anything else will grow. I have a large bed of *Tussilago* fragrans growing near the stokey-hole, and the *Chimonanthus fragrans* covering the back wall in close proximity to it, and I find them both very valuable at this dull season of the year.—T. B. FIELD.

[We remember our correspondent sending these winter flowers before, but we cannot have too much of such fragrant things as the Winter Heliotrope and the Winter Sweet (*Chimonanthus*). The waxy yellowish colour of the *Chimonanthus*, its sweet scent, and freedom make this one of the most delightful shrubs that bloom in winter. There are many outdoor winter flowers, but we are thankful for such good things as these.]

## AN HOUR WITH THE HOLLYHOCK.

(Continued from page 411, Vol. LXIV.)

A FEW years since gardening was confined to the opulent, the man of leisure, or the curious. Now, few men of business are without their pet flowers—their Hollyhocks, Roses, and the like. Even our husbandmen, whose gardens are, as they should be, chiefly devoted to the useful, can yet find spare nooks in which to place the flowers they love. And whether they be the wild flowers of their native valley, gathered in their course to or from the scenes of their labour, or a few exotics, the gift of some kindly neighbour, they become alike tokens of industry and sweet memorials of home. Modern changes have made gardening comparatively inexpensive, and one of the greatest recommendations is its freedom from selfishness—its accessibility to all. Yes, indeed, the cultivation of flowers is one of the least selfish of human pleasures; it has a special tendency to subdue this dominant principle of the human breast. How few of the gardens of the wealthy in this land are altogether closed to the public, and the number of visitors to them testifies at once their sense of the boon conferred and their appreciation of the beautiful objects they contain. And while the tendency of these visits is to improve and refine the less wealthy who may thus enjoy what their means does not enable them to possess, they promote a kindly feeling, and help to bind together the various classes of the community.

The flowering season, then, is at length arrived, and with what pleasure do we hail the first flowers as they break upon the sight. With their expansion we feel rewarded for the year's toil. What symmetry of form marks our choicest productions! What variation, what brilliancy, and what delicacy of hue pervade the assembled mass! Well may we exclaim as we admire—

"Who can paint  
Like Nature? Can imagination boast  
Amid its gay creation hues like her's?  
Or can it mix them with that matchless skill,  
And lose them in each other, as appears  
In every bud that blows?"

The interest increases day by day; every visit, however oft-repeated, discloses some new candidate for admiration—"something to please and something to instruct"—till from the solitary flower blushing at the base of the spike the flower stalk rises a column of beauty. The spike, at the time of the expansion of the blossoms, is probably 5 feet or 6 feet high; and as we count the rows of embryo flowers which stud its length, and know that they will still expand, we wonder where and when our joys will end. The arrival of winter alone is likely to stay their unfolding, and that is too far in the distance to mar our present enjoyment.

It should be our aim to preserve the column as long as possible. If any flowers expand irregularly, of bad colour or form, they should be immediately cut out, when the space created by their removal will be filled up by the fuller expansion of the surrounding flowers.

There is now an additional demand on our activity if the flowers are required for exhibition. One of the most urgent of the requirements of our favourites is a shade to protect them from sun, rain, and wind. Where the plants are so disposed to admit of it a canvas awning is perhaps the best contrivance. Let it be so constructed that it may be drawn up and down at pleasure, and used only as a protection against rain and strong sunlight. But there are circumstances under which each plant may require a separate shade, and how shall we accomplish this? Four pieces of deal quartering, about an inch or an inch and a quarter square, may be nailed together in the form of a pyramid, and of a given height, according to the height of the variety. This placed over the plant, the lower ends are fixed firmly in the ground, and the part where the flowers are is covered with cheap calico dressed to stand the weather.\* The bottom or top of this shade being entirely open, it is particularly cool, and, being much narrower at the top than at the bottom, the flowers are well shielded from the sun and rain.

Now, for a time at least, we have little to do but to enjoy their beauty. If the weather be dry, frequent and copious waterings must be made; for the Hollyhock is a great consumer of moisture, and the water should be given in such quantity that it may sink into the soil to a considerable depth.

W. PAUL, F.L.S.

(To be continued.)

## ORCHIDS.

### DENDROBIUM GLOMERATUM.

**M**ESSRS. HUGH LOW & CO., Enfield, showed this comparatively rarely-seen *Dendrobium* at a Drill Hall meeting of the Royal Horticultural Society last autumn. The home of this species is the Malay Archipelago, whence it was introduced some ten years ago. It is allied to the interesting *D. secundum*. The plant is of strong growth, and the flowers are produced in bunches from the nodes of the stems, which are 2 feet or 3 feet high in well-grown plants. The individual flowers are about 1½ inches across, sepals and petals rosy purple, and the lip deep orange, the latter being continued into a funnel-shaped spur. Altogether this is an Orchid that is well deserving of extended culture. T.

\* The following glaze for calico is recommended by *The Gardeners' Chronicle*: "Three pints of old pale linseed oil, one ounce of sugar of lead, and four ounces of white resin. The sugar of lead must be ground with a small quantity of the oil, and added to the remainder, incorporated with the resin by means of a gentle heat. Lay it on the calico with a brush. One coat annually is sufficient."

### SEEDLING ORCHIDS AT MESSRS. W. BULL AND SONS.

#### ODONTOGLOSSUM CRISPUM.

On a recent visit to Messrs. W. Bull and Son's nurseries I found the work of hybridising and raising of seedlings was being most successfully carried on. I was shown some beautifully spotted varieties flowering for the first time. The markings in these were very regular, both on the sepals and petals. In one house were several plants carrying good seed-pods. These had all been fertilised from

just making a start, and others less advanced were still in the seed-pots. There is no doubt that in the future there will be less chance of getting new Orchids among those imported, but this will be fully made up for by our English-raised varieties, and there is a wide scope for those who can give their attention to hybridising and can afford to wait for the results. Judging from the prices I have seen paid at public auction during the past few months, it would not require many distinct varieties to amply repay for growing a good number of seedlings. A. H.

### THE WEEK'S WORK.

#### BRASSAVOLA DIGBYANA.

NEW roots are now being emitted from this plant, offering a favourable season to repot or resurface, as necessity demands, in a compost of fibrous peat two parts, chopped sphagnum two parts, and good leaf-soil one part, mixing the whole well together, and adding some coarse sand. These plants should be treated as regards back bulbs, as I advised in last week's calendar for *Lælia anceps*.

In the past we have undoubtedly been wrong in cultivating this species in teak baskets and shallow pans. Since we placed our plants in pots we have seen a decided improvement, so I most strongly recommend that pots should be used, filling them to quite half their depth with chopped rhizomes; pot rather lightly. A light position should be afforded them in the stove Orchid house, but I do not think they require much direct sunshine during the brightest part of the year. Until the season is more advanced they will not require much water.

#### ZYGOPETALUMS.

The winter-flowering ones, such as the good old species *Mackayii* — *Z. intermedium* — should be repotted as soon as the flowers have been removed. They prefer a good retentive compost, e.g., two-thirds fibrous loam and one-third leaf-soil, with a good sprinkling of small broken crocks and coarse sand. A thorough drainage of crocks should be given, filling the pots to one-third their depth, over which place some fibrous turf to prevent

the small particles of soil working down among the drainage. Do not repot unless the plant really needs it, but when repotting is done remove all useless back pseudo-bulbs, two being enough behind the one last made. The base of the young growths should be placed just a shade lower than the surface of the compost, and keep that a little below the rim of the pot. A light position in the coolest part of the intermediate house suits them well. Water must be applied with great discretion at first. It is most essential that the atmosphere of the house is kept sweet and buoyant by the free admission of fresh air, otherwise the foliage will become invested with black spots.

#### TREATMENT OF IMPORTED ORCHIDS.

Many Orchids are now being imported, among them being *Cattleya Mossie*, *Oncidiums* in variety, and *Odontoglossums*, and at first they are often given too much heat and light, which causes them to shrivel and lose leaves. The first thing to be done is to cleanse them thoroughly. I prefer potting them at once, but if time does not permit lay them on a stage in a cool, moist house and keep them well shaded. When potting remove all old pseudo-bulbs, with the exception of two or three behind each "lead" or growth, and pot in as small a receptacle as possible in the usual way. For some time they should be placed together so that they may be shaded from strong light in such a house as advised above, spraying them over on all favourable occasions. They will require practically no direct watering for some time. When root action begins give them more light and place



DENDROBIUM

GLOMERATUM.

(REDUCED.)

the finest varieties, and should result in some fine things at flowering time, which, of course, will be some years hence. The seedlings from the previous year's crosses were seen on the surface of the compost in the pots of growing plants, this being the most successful way of raising them. The seedlings were very tiny indeed, and required a practised eye to detect them among the growing sphagnum moss. More advanced seedlings were in small pots. It may be some years before these seedlings flower, and, though it may be an interesting study to watch their steady development, it must be rather tedious work until the first begin to flower.

#### CYPRIPEDIUMS.

Of this genus the seedlings were more numerous, some of the pots being thickly covered with the tiny plants in the first stage of development, and numerous pots and pans of plants in a more advanced stage were seen. None of these are chance seedlings, but all are the result of careful cross-fertilisation of the finest species and varieties yet known, and when they flower there should be some interesting work for the Orchid committee.

#### LÆLIO-CATTELYAS.

The seedlings of these were also seen in large numbers. Those one year old had only about three tiny leaves, and were in very small pots. Pans with about 100 seedlings pricked off in each were

them in the houses devoted to the respective sorts. Water very carefully until the plants are well rooted.

W. P. BOUND.  
Gatton Park Gardens, Reigate.

## NOTES FROM THE MARKETS.

### COVENT GARDEN MARKET.

**CINERARIAS.**—Several growers are now bringing in very good Cinerarias, and the bright colours are a welcome change. They are not quite so popular perhaps as they were a few years ago, and it is only the bright colours that sell well; these make from 8s. to 10s. per dozen.

**Azalea mollis.**—There are not yet many in the market, and they make good prices. At Messrs. Wills and Segar we saw some well-flowered plants a few days ago. There are a good many Indian Azaleas coming into market now, but some of them are not very well flowered; the best plants make good prices. Whites, chiefly Deutsche Perle, are most plentiful. Lily of the Valley in pots is very good just now, and some are sold at quite a moderate price.

**Heaths.**—We shall soon have a good supply of Erica wilmoreana. We saw some in one of the market nurseries a few days ago, but they were not flowering quite so well as they do some seasons, and we may expect to hear the same of other growers, for the continued wet during the autumn must have affected these.

**Cyclamen.**—A good many growers are now bringing in well-flowered plants, and some have to be sold at much lower prices, but one grower told me he could still command 18s. per dozen for best plants.

**Mignonette** in pots is already coming in, but it is not yet very good; we must have more sun before this can be well flowered.

**Poinsettias** are holding out much later than usual. On Saturday there were some to be seen with very good heads of bracts. Solanums are still to be seen, but there is little demand for them.

**Palms and Ferns** are plentiful, and there is better demand for them. Now that all the hardy foliage and Christmas green are cleared up we may expect better trade for pot plants.

Many growers have now finished with Chrysanthemums, but there are still some good blooms coming in. Callas are very plentiful and cheap. There are not so many Liliums now. Tulips and Daffodils are the most plentiful of all cut blooms. Roses continue to be scarce, but we may expect to see a large increase in the supply in the course of two or three weeks time. Good English Carnations also continue to be short. A few bright days will make a great difference in the supply of these. Primrose roots in flower are already to be seen.

## BOOKS.

**The Book of Town and Window Gardening.**\*—Many a town-dweller and owner of a suburban garden will find helpful suggestions in Mrs. Bardswell's book. The most interesting portion is perhaps that which concerns the beautifying of some of the ugliest spots in crowded London, the efforts of working folk and even of the very poor to have the joy of a few flowers or some growing green thing to brighten the little dismal space of yard or roof or window-box.

There are flowers, and, above all, Ferns, that defy the smoke and gloom of London, and the truth of the old saying "Where there's a will there's a way" is shown in the success that rewards the ingenuity and perseverance of many a working man who will have some flowers about him.

A happy example of what may be done on a roof is shown opposite page 30—"A Roof Garden." Nothing is much uglier than corrugated iron. Here this unsightly material is covered with a mass of flowering plants.

\* "The Book of Town and Window Gardening," by F. A. Bardswell. John Lane, London, 1903.

## SOCIETIES.

### SCOTTISH HORTICULTURAL ASSOCIATION.

THE February meeting of the Scottish Horticultural Association was held in Dowell's Rooms, George Street, Edinburgh, on the 2nd inst. Mr. J. W. M'Hattie, president, presided over a large attendance of the members. A number of new members were elected. There were several exhibits upon the table, among them being some lovely sprays of Clematis indivisa from Mr. William Smale, Blackford Park, Edinburgh. Mr. T. A. Scarlett exhibited Potatoes, selected samples of Northern Star. A tuber of Eldorado, which weighed 2½ oz., was said by Mr. Scarlett to be worth £25. The lecture for the evening was on the subject of "Planting of Ornamental Shrubs and Trees." It was contributed by Mr. James Whytock, gardener to the Duke of Buccleuch, Dalkeith Palace. Mr. Whytock has for many years made a special study of this subject, and his lecture was an excellent one, which would require a verbatim report to do it justice. He touched upon the value of the various classes of ornamental shrubs and trees, recommending a proportion of each, and laying special stress upon those which were valued for their foliage. The paper was a valuable contribution to the subject. The usual vote of thanks was heartily accorded to the lecturer, and the interesting discussion only served to support Mr. Whytock's views.

### DUNDEE HORTICULTURAL ASSOCIATION.

THERE was a good attendance at the monthly meeting of the Dundee Horticultural Association in the Technical Institute on the 2nd inst. Mr. James Reid presided. The paper for the evening was by Mr. Charles Blair, Preston House Gardens, Linlithgow, the subject being "Early Vegetables and How to Have Them." Mr. Blair has lectured on a somewhat similar subject before the Scottish Horticultural Association, and his Dundee paper will add to his reputation as a lecturer on the cultivation of vegetables. In the paper Mr. Blair confined himself almost entirely to the cultivation of early vegetables under the more natural conditions, and he pointed out various methods by which a supply of home-grown produce could be secured at a time when there were generally only imported vegetables at command. That the paper was a most practical one was the prevailing feeling of those who took part in the interesting discussion which followed, but there was some difference as to questions of detail expressed by some of the speakers. Mr. Blair was very heartily thanked for his valuable paper, and the chairman's services received a similar mark of appreciation.

### ABOYNE, N.B., HORTICULTURAL SOCIETY.

A MEETING of the above society was held a few days ago in the Public Hall, Mr. A. Grant presiding. Mr. Cowie was appointed secretary in place of Mr. Black. Mr. Robert M'Hardy and Mr. Robert Wilson were added to the professional committee in place of Mr. Ingram and Mr. Ironside, and Mr. D. Stewart and Mr. A. Hogg to the amateurs' committee. The prize schedules were also revised.

### ROYAL HORTICULTURAL SOCIETY.

#### SCIENTIFIC COMMITTEE.

PRESENT: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Gordon, Odell, Shea, Worsdell, Saunders, Michael, Bowles, Massee, Holmes, and Fraser, Dr. M. C. Cooke, Revs. W. Wilks and G. Henslow, hon. secretary.

**Codlin moth in May.**—Mr. Saunders made the following contribution to this subject discussed at the last meeting: "I cannot find that more than one brood has ever been noticed in England of the codlin moth, though two broods are common on the Continent and in America, and on the other side of the Atlantic three broods have been known. In this country the moth leaves the chrysalis in May, and lays her eggs very soon afterwards. The caterpillars are hatched in the course of a week or ten days, and remain in the Apple three weeks or a month. Being full fed, they leave the fruit to fall to the ground, and make their way to the nearest tree stem and crawl up it until they find a suitable place to pupate in. If they cannot find a tree a post or paling or even dead leaves will provide them with a shelter. The object in putting bands round the trees is to provide the caterpillars with hiding places, where they may be found and destroyed. They are not sticky, but made of folded canvas or sacking, or even hay or straw bands, and should be put on as soon as any 'wind-falls' are found."

**Maggots in Moss litter.**—Mrs. Horseley sent samples with enquiries. Mr. Saunders reports as follows: "The grubs found in the Moss litter manure were those of a fly belonging to the genus Bibio, but I cannot tell the name of the species, several of which are very common. Perhaps the one best known is the St. Mark's fly (Bibio Marci), so called from its generally appearing about St. Mark's Day (April 25). These flies are quite black, and are rather more than half an inch in length. Their bodies are rather thin, and the wings are not very transparent, and measuring about 1½ inches from tip to tip. They fly in a very clumsy manner, and may be found crawling over plants, &c., in great numbers for a day or two, and then they disappear altogether. The flies may be easily caught in a butterfly net. If poultry are kept I should spread the manure about and let them pick and scratch it over, for they will soon pick out the grubs. Mixing nitrate of soda with the manure might be tried, but I am not sure whether it would have much effect on the grubs, as I have not heard of any experiments having been made on them. They are undoubtedly injurious to the roots of plants at times."

**Coloured photographs of Orchid.**—Mr. Odell exhibited a coloured photograph of Cypripedium insigne Sanderae, executed by a new method. The yellow colour was very characteristic. It was received from Mr. A. S. Hickley, Kelso House, near Southampton.

**Liza discused.**—Mr. Shea showed leaves of I. crateroides as being the only species with the foliage discoloured. There

was no fungus present, the appearance being thought to be due to hereditary predisposition.

**Eucalyptus with nodules.**—Mr. Saunders showed small plants with nodules on the stem close to the ground. Nothing could be found inside. Mr. Massee observed that ants can cause similar ones on Roses, the formic acid acting as an irritant, and knots can be produced artificially.

### DRILL HALL MEETING.

#### ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, de B. Crawshaw, James Douglas, E. Hill, J. G. Fowler, Jeremiah Colman, F. W. Ashton, H. T. Pitt, W. A. Binley, F. A. Rehder, R. A. G. Thwaites, H. J. Chapman, A. A. McBean, J. Wilson Potter, W. Bolton, J. Charlesworth, H. Ballantine, M. Gleeson, W. Boxall, W. H. Young, H. A. Tracy, W. H. White, F. Sander, H. Little, R. Brooman White, and Walter Cobb.

Messrs. Sander and Sons, St. Albans, had a magnificent display of Orchids, filling one side of a table. Dendrobiums and Phaius, together with Palms, made a delightful background, while Cypripediums, Cymbidiums, Phalaenopsis, Odontoglossums, Cattleyas, Lælio-Cattleya, &c. made an admirable display in front. The gold medal was awarded to Messrs. Sander for this group, a remarkably fine one. Among the Cattleyas and Lælio-Cattleyas were C. Trianae Purple King, C. Trianae delicata, L.-C. warnhamensis, L.-C. lucasiana var. hindeana, L.-C. blethleyensis, and L.-C. b. Illuminator. Cypripediums were numerous, and included C. Monarch, C. lamontianum, C. J. Bertels, C. aureum var. Excelior, C. Transvaal, C. Cyrus, C. Annie Measures, C. Sallieri aureum, and C. Brilliant (buchaniana × Calypso). The Dendrobiums were finely flowered, and there were some good Odontoglossums, such as O. nevadense, O. wilckeanum, O. w. chrysoxanthum, and O. crispum varieties. Among other Orchids in this group were Maxillaria luteo-alba, Cymbidium lowianum concolor, Miltonia bleana splendens, Phalaenopsis schilleriana, and others. Gold medal.

N. C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman), exhibited some very pretty Odontoglossums, many beautifully marked forms were included, and the plants were well flowered. Among them were O. crispum Brilliant, O. Adriane Oakwood var., O. Pescatorei albescens, O. crispum xanthodes. Cattleya choconensis alba and other choice Orchids were shown. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, exhibited a group of Orchids, in which Lælio-Cattleya Charlesworthii was, as usual, conspicuously bright. It is a most valuable midwinter Orchid. Cattleya Enid (C. Mossie × C. gigas), a large flower with rosy purple sepals and petals, and rich purple lip; L.-C. Lilian, L.-C. Sallieri, C. gaskelliana, L.-C. gottoiana (L. tenebrosa × C. Warneri) and Cattleya Enid (C. Mossie × C. gigas) made a handsome display, and other good things were Celyogone sparsa, Dendrochilum glaucum, Brasso-Lælia Mrs. M. Gratrix, Odontoglossum Adriane Duchess of Cornwall, Cypripedium Lilian Greenwood, C. cardosianum (C. barbatum Warneri × C. leianum albertianum), C. Hitchinsiae, and C. villosum auriferum. Silver Flora medal.

Messrs. B. S. Williams and Son, Holloway, N., had a very bright group of Orchids, including some good Cypripediums, for instance, C. leianum superbum (well bloomed), C. politum, C. pitcherianum Williams var., C. harrisianum superbum, C. mearesianum, C. williamsianum, and others. Lycaste lasioglossa and L. Skinneri were well shown also. Silver Banksian medal.

In the group shown by Messrs. Hugh Low and Co., Bush Hill Park, Enfield, N., were some very good Phalaenopsis schilleriana, P. stuartiana, and P. amabilis, a splendid plant of Cattleya Trianae (carrying sixteen flowers of fine form), Dendrobium crassinode (full of flower), Barkeria elegans, a fine form of Cattleya Trianae, and C. T. alba. Other good Orchids were Cypripedium Thompsoni and C. Thompsoni inversum, Cymbidium affine, and Goodyera discolor. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a small group of hybrid Orchids, viz., Cypripedium aureum virgiale, C. Gertrude superbum, C. Euryades excellens, and Zygopetalum leucocolum.

Mr. H. Tracy, Twickenham, showed Cypripedium Ethel × insigne punctatum Charlesworthii.

Flowers of Lycaste costata were shown by Mr. Henry Little, Twickenham.

M. Charles E. Vuylsteke, Loochristi, near Ghent, Belgium, exhibited Odontoglossum wilckeanum varieties and a very handsome hybrid Cattleya.

Cut racemes of Dendrobium speciosum were shown by S. Taylor, Esq., Marjory Hall, Reigate.

G. F. Moore, Esq., Chardward, Gloucestershire (gardener, Mr. Page), showed a group of Cypripediums in some lovely forms. There were C. aureum virgiale, C. Miss Amy Moore, C. nitens × Boxalli, C. Hera Euryades, C. Euryades Chardward var., C. Sallieri aureum, C. Sunrise, C. mooreanum, and others. Several obtained awards of merit, and are described elsewhere. Silver Banksian medal.

H. T. Pitt, Esq., Stamford Hill, showed Cypripedium pellianum, a handsome flower with greenish sepals, and petals heavily spotted with black.

Messrs. J. Cypher and Sons, Cheltenham, were given a silver Banksian medal for a group of Orchids in variety. Included were Cattleya Trianae, Lælio-Cattleya Hippolyta, Cypripedium lathamianum, C. villosum giganteum, C. vexillarium, Dendrobium Cybele, D. Domitii, D. schneiderianum, and others. Silver Banksian medal.

Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), sent flowers of Odontoglossum elegans, East Wood Park variety.

#### NEW ORCHIDS.

**Cypripedium Adippe.**—A large handsome flower, with the upper part of the dorsal sepal hending over, and keel-shaped; it is a rich crimson except for a green base, and has a white margin. Petals and lip are greenish brown. The parentage of this Cypripedium is unrecorded. From Captain Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander) and Messrs. Charlesworth. Award of merit.



*Cypripedium aureum virginale*.—A very attractive flower. The dorsal sepal, recurving towards the base, is white, except for the light green base and a tinge of rosy crimson in the centre. The broad petals are light green marked with brown, and the lip is rather darker. From G. F. Moore, Esq., Chardwar, Gloucester (gardener, Mr. Page). Award of merit.

*Cypripedium W. H. Page*.—A charming little flower, the result of a cross between *C. niveum* and *C. Boxalli atratum*. Dorsal sepal and petals are heavily spotted with crimson upon a waxy white ground, and the long narrow lip is white suffused with palest green and with a few faint crimson dots. From G. F. Moore, Esq. Award of merit.

*Cypripedium Thompsoni*.—This is a bold flower, of handsome colouring, whose parents are *C. villosum aureum* and *Calypso*. The shining lip and petals are green and brown, and well formed, while the dorsal sepal, recurving towards the base, is white suffused with crimson, and green at the base. From G. F. Moore, Esq. Award of merit.

FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. H. B. May, G. Nicholson, W. G. Baker, R. Dean, J. Green, E. Molyneux, R. Hooper Pearson, G. Reuthe, J. Jennings, C. R. Fielder, Charles Dixon, W. Bain, C. J. Salter, Charles Jefferies, H. J. Cutbush, J. A. Nix, R. W. Wallace, R. C. Notcutt, Charles E. Shea, W. P. Thomson, R. Wilson Ker, W. J. James, E. H. Jenkins, C. T. Drury, and Charles Blick.

Messrs. J. Hill and Son, Edmonton, set up a capital exhibit of Ferns, many of which were of good size. *Gleichenia rupestris*, *Davallia tenuifolia Veitchii*, *Osmunda palustris*, *Polypodium glaucum*, *Gleichenia dicarpa longipinnata*, *Woodwardia radicans cristata*, *Brainea insignis*, *Gymnogramme schizophylla gloriosa*, and *Gleichenia fiabellata* were among the best in this excellent group. A basket of *Saxifraga sarmentosa tricolor* was also shown. The variegated and green forms of *Ficus repens* gave a good margin to the whole. Silver-gilt Banksian medal.

Messrs. William Cutbush and Son, Highgate, contributed a very interesting lot of hardy things. Irises of the early bulbous section, *Sternbergia fischeriana*, *Saxifraga burseriana*, *Megasea Stracheyi*, *Daphne blagayana* (fragrant white flowers in trusses), *Leuten Rosens*, *Saxifraga Giesbackii*, Irises reticulata, and double Primroses were among the most interesting. *Prunus triloba pl.*, Lilacs, and other forced plants were also shown. Silver Banksian medal.

Messrs. Hogh Low and Co., Bush Hill Park, N., set up a fine lot of Cyclamens in many colours—pink, white, and reds, with salmon shades predominating. The white kinds were especially good, the flowers large and well formed.

Mr. G. Reuthe, hardy plant grower, Keston, Kent, had a small group, in which Irises, early Crocus, Snowdrops, *Shortia*, *Cyclamen Coum album*, *Colchicum libanoticum*, Iris histrioides major (very fine), and *Crocus suaveolens* (quite a charming pot) were especially observed.

Messrs. Cannell and Sons, Swanley, again sent *Coleus thyrsoides* in the cut state, showing the fine blue of its flowers.

Mr. Godfrey, Exmouth, again sent *Chrysanthemum Winter Queen*, the white Japanese, which we commented upon at the last meeting.

Hardy alpine and allied things were in strong force from Messrs. Ware, Limited, Felcham, and here we noted Blue Primroses, *Primula megaseae-folia*, *Cyclamen Atkisti*, *Lithospermum rosmarinifolium*, a lovely blue; *Saxifraga burseriana*, *Anemone blanda* in variety, *Adonis amurensis*, buttercup-like yellow; many *Crocus* species, and other interesting plants. *Scoliopus Bigelovii*, *Chamaelirium caibianum*, *Shortia uniflora*, and *Tapekea radicans* were among the rarest plants here set up.

Messrs. Mount, Canterbury, showed forced *Roses* such as *Liberty*, *Mrs. Sharman Crawford*, *Niphetos*, *Mrs. Grant*, *Caroline Testout*, *Mme. Gabriel Luizer*, &c., all in perfect condition. The fragrance of the flowers was most welcome at this early season, and attracted many admirers. Silver Banksian medal.

Messrs. Wallace and Co., Colchester, showed *Primula megaseae-folia*, of which there were some good forms. *Colchicum montanum*, pale lilac, with dark anthers; *Iris Danfordiae*, *Tellima grandiflora*, *Adonis amurensis*, Snowdrops, and several forms of *Iris stylata*.

Messrs. Sutton and Sons, Reading, set up a large group of *Primula The Duchess and Double Duchess*. It is the former kind that a year or more ago was granted the award of merit, and the more we see of it the more we are convinced of its good qualities. The combination of white, carmine centre, and yellow eye is very striking. Double Duchess is of the same character, but with double flowers. Brilliant King is the most wonderful colour in *Primulas* we have yet seen. It is a ruby-crimson with blackish centre and yellowish eye, a most striking variety. Giant White, Fern-leaved White, Terra-Cotta, and Giant Pink are all of exceptional merit.

Sutton's Blue Star *Primula* is perhaps the most decided break in the *P. stellata* group. Very distinct in colour, and good in form it is likely to be in demand. Silver-gilt Flora medal.

Hardy flowers from Messrs. Jackman, Woking, included *Clematis cirrhosa* and many Irises, such as *I. Heidreichi*, *Tauri*, *reticulata*, *Krelagei*, and *Danfordiae*, with Snowdrops and a beautiful soft pink single *Primrose* that is very charming.

From Messrs. Veitch and Sons, Limited, Chelsea, came a group of greenhouse plants, such as *Coleus thyrsoides*, *Eupatorium verale* (white), *Jacobinia coccinea*, and *Cheiranthus kewensis*, supported by tall Palms, &c. Silver Banksian medal.

A long table filled with *Primula sinensis* in variety came as a contribution from Messrs. Cannell and Sons, Swanley. Fairish of the Fair (white), Firefly, Miss Doris (white), and Kentish Queen (white) were among the important kinds shown. Silver Flora medal.

Mr. John Russell, Richmond, had a fine display of *Azalea Anthony Koster* (golden), with forced Lilacs, *Azalea indica*, *Hammamelis arborea*, *Daphne indica*, and such like things. Silver Flora medal.

Messrs. Barr and Sons, Ditton, put up an excellent exhibit, in which Snowdrops, Irises, *Narcissus minimus*, *Iris reticulata* (very fine), *Primula obconica*, *Saxifraga burseriana*, *Heliolebor lutescens*, *Fritillaria orantensis*, *Muscari azureum robustum*, *Crocus susianus*, *Narcissus cyclamineus*, *Iris stylata*, &c., were included. Silver Flora medal.

Hardy rock and alpine plants came from the Misses Hepatics, Mere, Cheshire, comprising Saxifrages, Primroses, Hepatics, Blue Primroses, gold-faced Polyanthus, &c.

A small exhibit of rock plants came also from Messrs. Cheal and Sons, Crawley, Hellebores, Aconites, Primroses, and rock shrubs contributing to the display.

Mr. W. Palmer, Andover Nurseries, Andover, set up a capital group of *Primula sinensis* of a semi-double character. The plants were well grown and freely flowered. Bronze Flora medal.

An exhibit of *Primula sinensis* in some charming varieties, though none received distinction, came from Mr. C. Burberry, Castle Gardens, Arundel.

Mr. H. T. Dixon, Woodside Nurseries, Polegate, showed some admirable plants of *Cyclamen persicum* of a pure white and finely grown.

AWARDS.

*Eupatorium verale*.—A pure white-flowering species of merit. The leaves are roughish and ovate acuminate. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

*Tulipa kaufmanniana arva*.—A variety in which the golden character is strongly pronounced. It is a fine addition to early Tulips. From Messrs. Cutbush and Son, Highgate. Award of merit.

*Begonia Mrs. H. J. Dixon* is a pink-flowered sort, apparently with much of the *superflorens gigantea* in it. It is a freely-flowered plant and a good winter flower. It is said to be raised from *Schmidt alba* and *Goliath*, the former being the seed parent. From Mr. H. J. Dixon, Woodside Nursery, Polegate. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. W. Balderson, J. Cheal, W. Bates, George Woodward, S. Mortimer, Alex. Dean, W. Pupe, Horace J. Wright, W. Fyfe, James Gibson, Edwin Beckett, Henry Parr, G. Reynolds, F. Q. Lane, John Lyne, J. Jaques, Owen Thomas, James H. Veitch, George Wythes, A. Herrington, and A. H. Pearson.

The only exhibit before this committee was a dish of *Pear Passe Crassane*, from Mr. George Woodward, Baham Court Gardens, Maidstone. They were delicious. Cultural commendation.

ANNUAL GENERAL MEETING.

The annual general meeting of this society was held on Tuesday last in the Drill Hall, Westminster. Sir Trevor Lawrence, Bart., was in the chair, and was supported by members of the council. There was a large attendance, over 300 chairs being filled, and a number of persons were standing.

The secretary read the notice convening the meeting, the minutes of the last general meeting, a list of seventy-five ladies and gentlemen proposed (and subsequently elected) as Fellows, and the following:

"According to the provisions of the New Charter the following gentlemen retire from the council, but are eligible for re-election, viz.: Sir Trevor Lawrence, Bart., V.M.H., Mr. J. Gurney Fowler, and Mr. James Hudson, V.M.H. The following gentlemen have been duly nominated to fill the vacancies, viz.: Sir Trevor Lawrence, Bart., Mr. J. Gurney Fowler, and Mr. James Hudson, V.M.H. The following have been nominated for election as vice-presidents, viz.: The Right Hon. Joseph Chamberlain, M.P., the Right Hon. the Earl of Dowie, the Right Hon. Lord Rothschild, Sir Frederick Wigao, Bart., and Sir John D. T. Llewellyn, Bart. The following have been nominated for election as officers, viz.: Sir Trevor Lawrence, Bart., V.M.H. (president), J. Gurney Fowler, Esq. (treasurer), Rev. W. Wilks, M.A. (secretary), and Alfred C. Harper, Esq. (auditor)."

Sir Trevor Lawrence, in moving the adoption of the report, said there was little new for him to add. This year would mark a great epoch in the society's history. It was established in 1804 at Hatchard's in Piccadilly, in a room at the back of the bookseller's premises that still exist. All who were interested in horticulture must view the position of the society with great satisfaction. At no period has it had so large a surplus income as last year, when it was £3,641. As an indication of the great changes which have taken place, Sir Trevor mentioned that in January of this year the total amount received in subscriptions was £5,757, more than the total amount received during the whole of 1900, only four years ago. This shows the rapid growth of the society, and indicates the interest that is now taken in gardening by a large number of people. The success of the society Sir Trevor thought to be due to the fact that it has persistently stuck to the prosecution of horticulture, and he thought that so long as this policy was continued the society would thrive. With reference to the matter of raising the annual subscription, Sir Trevor said the council had fully considered the matter, but they would leave it entirely in the hands of the Fellows. Doubtless they would be told by many that it was wiser to leave well alone, but Sir Trevor pointed out that the society's position is very different now to what it was some years ago, when the subscription was made £1 1s. There was no Temple show, no Holland House show, practically no journal, and no advice given to Fellows. Some had objected to the pecuniary value of the £1 1s. subscriptions as published in the Royal Horticultural Society's journal. It ought not to have been put quite like that; it should have read that every Fellow for his £1 1s. subscription *can* get returns to the amount given. "Some seemed to think," said Sir Trevor, "that there should be an entrance fee of one guinea, instead of raising the subscription," and this remark was greeted with applause.

Mr. Alexander Dean seconded the adoption of the report. He thought the council had done him the honor of asking him to second this resolution in order to show their appreciation of their committees; he was one of the oldest mem-

bers of the oldest committee. They must not forget that the new hall and garden would carry with them great responsibilities. Mr. Dean said there was a possible danger of the society being flooded with people who were not really interested in gardening; he thought they should endeavour to get new Fellows who are true horticulturists. Mr. Dean suggested that members of the trade should be exempt from any additional subscription, as well as *bona fide* gardeners. He was sorry to see no mention of any exhibition of vegetables in the arrangements for 1904, but trusted the council would see to it that they were not neglected.

Mr. H. J. Elwes suggested that the Royal Horticultural Society should do as some other societies do, e.g., the Zoological Society, and make the Fellows pay extra for the Journal. As it has increased in value so the expense of production has increased also. Mr. Elwes also asked if the council had considered the propriety of taking part of the balance of £17,500, accumulated funds to wipe off the deficit of some £16,000 still needed to complete the new hall. The subscriptions for this seemed to have been hanging fire somewhat last year. Mr. Elwes said that some considered the Wisley garden to be a white elephant, but he was not of that mind; there was, however, much to be done there that would entail considerable expense.

Sir Trevor Lawrence said he would leave it to the treasurer to reply upon the financial aspect of the question. With reference to the Journal, Sir Trevor said that Mr. Wilks told them, and the council fully believed it to be the case, that many joined the society simply to obtain the Journal, therefore it would be inadvisable to charge extra for it. They would, however, be glad to know if any Fellows did not wish to have the Journal.

Mr. Gurney Fowler (treasurer) said that Mr. Elwes had somewhat exaggerated the deficit necessary to complete the new Hall. The money promised and received amounted to £25,000, and the total expenditure would not be more than £40,000. They had received in donations £22,561, and interest on money temporarily invested £451, which, together with promised subscriptions of £2,113, amounted to £25,125. Of this £12,124 had been spent, leaving a balance in hand for present liabilities, with the amount of promised subscriptions, of £13,001. The contracts for the hall amounted to £34,780; they had already paid £10,379, leaving a balance to pay of £24,401; they had at present £13,001 to pay it with, leaving a deficit of £11,400. Mr. Fowler said that the furniture ought not to be considered as part of the cost of the building itself. The actual liquid assets of the society were about £20,000. It was proposed to lodge with the bank some of their investments for a temporary loan until it was seen how the subscriptions came in. Over £11,500 (unpromised) had been subscribed in January. They had great hopes that all the money would yet be subscribed by Fellows. If it became necessary they proposed to effect a mortgage through an insurance office (which had already offered to negotiate on favourable terms), which would be met out of the annual surplus. At a favorable opportunity they would probably sell some investments either to pay off the loan or redeem the mortgage, as the case might be. As the surplus income last year was £3,641, and they had already had 250 new members this year, they thought it could be depended upon.

Sir Trevor Lawrence said that their solicitors advised them that the Chiswick lease would bring £5,000, which would go towards the expenses of the Wisley garden. On behalf of the society he thanked the committees, who so ungrudgingly gave their services throughout the year; the secretary, whose work was invaluable; and the staff, who, both at Chiswick—under the superintendence of Mr. Wright—and in the office, have worked hard. They hoped in the future to have an assistant secretary; the work had increased so much that it was necessary to have more help. In consideration of the extra work thrown upon the office staff the council had granted an honorarium to them.

The adoption of the report was carried *unm. con.* Mr. Gurney Fowler proposed that Fellows be elected at an annual subscription of two guineas and be entitled to certain specified privileges, or at an annual subscription of four guineas and be entitled also to certain increased privileges. Mr. Fowler explained that this resolution did not affect present subscribers. The council wished to put this proposition and also an amendment in order to find out the wishes of the meeting. One reason of the proposed increased subscription was to raise the income of the society, on account of the new Hall. As the Fellowship increased so the receipts at the shows would fall, and the increase of Fellows meant more clerical work. It was felt that those joining now should pay more than those who had helped to build up the success of the society.

Mr. A. H. Pearson seconded this proposition. Mr. Harry J. Veitch proposed the amendment, which was to the effect that, except in the cases of a *bona fide* gardener, Fellows residing abroad, or paying a two or four guinea subscription, new members should pay an entrance fee of one guinea in addition to their subscription. Surgeon-Major Ince seconded the amendment, which he thought outlined an excellent and reasonable plan. No society gave such a Journal as the Royal Horticultural Society, and Major Ince compared it with that issued only once a year by the Royal Agricultural Society.

Mr. Elwes asked if the entrance fee would be treated as capital or income, but Sir Trevor Lawrence said that had not yet been considered. The amendment was carried by a large majority. Sir J. D. T. Llewellyn proposed a vote of thanks to Sir Trevor Lawrence for presiding, and this terminated the proceedings.

THE HORTICULTURAL CLUB.

The annual meeting of the members of this club was held on Tuesday, the 9th inst., at the Hotel Windsor, and was followed by the annual dinner, under the presidency of Sir John D. T. Llewellyn, Bart., at which about eighty members and guests, including on this occasion a liberal sprinkling of ladies, were present. At the meeting a very

satisfactory report of the progress of the club was read by the chairman, embracing not merely proofs of the increase of membership, but also abstracts of the various papers read during the year by some of the highest authorities in the horticultural world, attesting not only the social value of the club but its practical value as a factor of instruction and progress. The membership is now about 140, as compared with about half that at a number of years back, and it is hoped that in view of the accommodation afforded to those joining it, by the possession of comfortable quarters always available at the Hotel Windsor, its value as the recognised social centre of the Royal Horticultural Society will be still further utilised by the ever-increasing number of its fellows. The dinner, which was capitally arranged by the hon. secretary, Mr. E. T. Cook, was enlivened by the presence of the Georgian Singers, under the direction of Mr. Harry J. Stubbs, and their repertoire included a number of most charming songs, rendered in an equally charming way, both in the shape of quartettes and solos, jovial and serious. Mr. C. T. Drury, V.M.H., gave a humorous reading of his own entitled "Modern Chivalry," which was extremely well received, and in every way the meeting was pronounced to be one of the greatest social successes of the club.

After the usual patriotic toasts, Mr. George Gordon, V.M.H., in a felicitous speech, proposed the toast of the Royal Horticultural Society, depicting in graphic terms its vicissitudes in the past and its triumphal progress of recent years, as attested at the annual meeting held that day at the Drill Hall, and the credit was given which was certainly due to the Horticultural Club, that at the darkest period in the history of the society it was within the walls of that club that a scheme of regeneration was formulated and started, with the brilliant results in question. Mr. A. H. Pearson responded in an equally happy vein. The toast of the club itself, proposed by the president, Sir John D. T. Llewellyn, Bart., was naturally both well proposed and well received, Mr. George Monro responding in a humorously humble way as an outsider, which could hardly fail to tickle the fancy of all present, who recognised his value as a member and his general position in the horticultural world. Mr. Harry J. Veitch proposed the health of the president in his genial way, and the president, responding took the opportunity of reverting to Mr. E. T. Cook's invaluable services as hon. secretary, and proposing a special toast in his behalf, which was cordially received with the usual honours. A hearty vote of thanks was finally accorded to Mr. Harry J. Veitch and Mr. George Monro for the lavish provision of the former of floral table decorations and by the latter of a generous supply of fruit, embracing Peaches, Nectarines, and Plums from the Cape, which were of considerable interest as regards their novelty as well as merely gastronomically.

#### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

The usual monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday, the 8th inst. Mr. Charles H. Curtis presided. Fourteen new members were elected, making thirty-one in the two meetings this year. The annual general meeting will be held at the above hotel on Monday, March 14, at 8 p.m.

#### ROYAL HORTICULTURAL SOCIETY OF SOUTHAMPTON.

The annual general meeting of members of the Royal Horticultural Society of Southampton was held recently at the Municipal Offices. The forty-second annual report presented by the council is, with one exception, a most encouraging one. For the first time for many years a statement of accounts is presented in which the liabilities are nil, whilst the assets show a cash balance of over £90, as against £39 shown in the last report. This favourable result is mainly due to the two extra events held during the season, viz., the exhibition held in conjunction with the Royal Counties Agricultural Society's Show, and the garden fête held in the president's beautiful grounds. With regard to the first-named, this society is indebted to the council of the Royal Counties Agricultural Society in sanctioning the liberal arrangement made on that occasion, and it is very gratifying to note that in their report they give the horticultural exhibition credit for a large share in securing the great success that attended their Southampton show. The council gratefully acknowledge their indebtedness to Sir Samuel Montagu, Bart., for his great kindness in once more placing his grounds at South Stoneham House at the disposal of the council for a garden fête; his generosity in also allowing the salmon pool to be drawn for the benefit of the society's funds was greatly appreciated, and materially added to the success of the fête. The profits on this and previous garden fêtes have enabled the council to redeem, from time to time, the £5 bonds, and the whole of that liability has now been paid off. With a view of forming an adequate reserve fund, £25 has been added to the deposit account, and until this fund reaches at least £100 the council do not consider it expedient to sanction any material increase in the prize lists. The council regret to have to record a reduction of over £6 in the amount from annual subscriptions, and they earnestly appeal to the members and the public for assistance in the endeavours to improve the income from this source, as the prosperity of the society so much depends upon a good subscription list being maintained.

It may be added that the entries for the summer show, to be held in the Pier Pavilion on July 6 and 7, will close on June 30. There are fifty-one classes in the schedule. The autumn show will be held in the Skating Rink on November 2 and 3, and the entries for this show close on October 27. There are fifty-seven classes in the schedule, and the Queen Victoria Challenge Trophy, value £40, for Chrysanthemum blooms, is competed for at this show. The present holder is the Dowager Lady Ashburton.

The chairman, in moving the adoption of the report, referred to several of the items in it. He thought the

members must be very pleased to know that once again the society was out of debt, and it would be the effort of the council, if the public would only support them to keep out of debt; but they did wish for a larger share of public support, and for an increase in subscriptions. The paragraph which recorded a decrease of £6 in the subscriptions was a regrettable one. The secretary told him that the subscriptions were about the same now as when the population of the town was one-half what it was at present. Referring to the sources of income the society had had during the year, the chairman expressed obligations to the Royal Counties Agricultural Society for having allowed this society to hold an exhibition on the show grounds. He thought that that was the place to refer especially to the efforts of Mr. Toogood in securing that concession. Mr. Toogood, who was a member not only of the council of this society but also of the council of the Royal Counties Society, worked most energetically in the matter. The society must also not forget their president, Sir Samuel Montagu, who during the year was good enough to give the society the opportunity of holding in his grounds another fête, which materially helped to swell the society's funds.

#### NATIONAL CHRYSANTHEMUM SOCIETY.

On Monday evening last the newly-constituted executive committee of the above society held a very busy meeting at the usual rendezvous of the society, Carl's Restaurant, Strand. Mr. Thomas Bevan presided, and was supported by a fairly good attendance of members. Minutes, correspondence, and submitting the rough financial statement up to date occupied the attention of members for some little time at the outset. The treasurer explained that out of the amount due to the society at the date of the auditing of the balance sheet he had since received upwards of £70, and that the balance in hand actually amounted to £117 odd. The reserve fund now amounted to £115, and a deposit note for the same was produced. It was resolved that the secretary's salary for the year should be, as before, £100. The business relations with the Crystal Palace Company were then gone into, and the arrangements, both as to accommodation and pecuniary support for the forthcoming shows, highly appreciated. A motion was then made that the secretary be duly authorised to sign the contract between the Crystal Palace Company and the National Chrysanthemum Society. Arrangements as to a supply of tickets for members, exhibitors, and authorised Press representatives have also been placed on a satisfactory footing.

One-third of the floral committee retiring by rotation, an election was necessary. The following gentlemen were elected: Messrs. W. Howe, J. W. Moorman, D. B. Crane, Ingamells, Simmonds, and Kendal. The report of the schedule sub-committee was then submitted—this occupying much time, the discussion being very full on all points. About £50 more cash will be added to the prize list than was offered last year. Special prizes will be offered by the Ichthemic Guano Company, the president (Mr. C. E. Shea), Mr. W. Seward, and others.

Judges were next appointed. They are as follows, with suitable reserves in case of any falling out:—October Show: Mr. Henry Perkins and Mr. G. Langdon. November Show: Japanese blooms, Messrs. Carpenter, W. Meredith, J. Attman, J. W. McHattie; incurred blooms, Messrs. G. Lane and G. Woodgate; decorative and groups, Messrs. Beckett and C. Jordan; fruit and vegetables, Messrs. S. Cole and S. Mortimer; December show: Messrs. W. Mease and W. G. Drower.

Vacancies on the classification schedule and finance committees were filled, and a special sub-committee to undertake the arrangements in connexion with the exhibition of market varieties in December was appointed.

It was resolved that six of the society's small silver medals be presented, as on a former occasion, to affiliated societies, the presentation being made by ballot. New members were elected, and the Penarth Chrysanthemum Society was admitted in affiliation. The business was brought to a close by a proposition being made on behalf of Mr. Norman Davis that the society should create a department of Chrysanthemum nomenclature registration, in something after the same style as that adopted by the American society. The object of this will be to prevent the same name being given to different varieties, and also the recording of the raisers' names and dates of introduction of novelties. Mr. Harman Payne was nominated registrar for the present.

#### CARDIFF CHRYSANTHEMUM SOCIETY.

The seventeenth annual meeting of members of the above society was held on Friday evening, the 5th inst., at the Grand Hotel, Westgate Street, Cardiff. Mr. J. Julian occupied the chair, and the interest evinced in the society was shown by the fact that the attendance was much more numerous than usual. The annual report was submitted by the chairman. It stated the year 1902 ended in a loss of £18 1s. 3d., contingent on the outstanding subscriptions being recovered. Unfortunately, £4 9s. 3d. was irrecoverable, and this left a total deficit of £22 10s. 3d. at the beginning of the year 1903. The whole of that had been paid off, and the society would start the next year clear. The total subscriptions for last year amounted to £124—about £8 more than the year before. The door receipts were most encouraging, and amounted to £138 5s. 11d., being the highest since the year 1899, which was considered a record year, £129 9s. 3d. being taken at the doors. Altogether this was the best account presented for many years. The late show was admitted to have been one of the best both in respect of competitive and trade exhibits. The date of the next show has been fixed for November 2 and 3. Councillor Curtis was unanimously re-elected president of the society. All the vice-presidents were re-elected. Mr. John Julian, who vacated the chair, was unanimously elected as a vice-president, as a recognition and appreciation of his services to the society, especially for the past two years, during this time as chairman, he being mainly instrumental in bringing the society up to the high standard of excellence and

efficiency to which it has now attained. Mr. J. Grimes was elected chairman of committee; Mr. F. G. Treseder, vice-chairman; Mr. H. Gillet, secretary; Mr. H. B. Crouch, treasurer; and Messrs. Booth and Medhurst, auditors. Reference was made by the chairman and others to the cordiality with which the officers had worked, and much satisfaction was expressed that the prospects of the society were so promising.—H. R. F.

#### GARDENING APPOINTMENTS.

MR. QUINTON, for some years foreman under Mr. Reynolds at Gunnersbury Park, has been appointed head gardener to P. Jackson, Esq., Latchmere, Ham Common, Surrey. He entered on his new duties on the 6th inst.

MR. E. HENDERSON, for three years foreman in the gardens at Criche, Wimborne, has been appointed gardener to Lieutenant-Colonel W. H. Poe, C.B., Heywood Abbey, Leix, Queen's County, Ireland. He commenced his duties on the 6th inst.

MR. T. W. TURNER, for a number of years general foreman at the Royal Horticultural Society's gardens, Chiswick, has been appointed superintendent of grounds at the Royal Hospital, Chelsea.

#### OBITUARY.

#### SIR DAVID CARRICK BUCHANAN, K.C.B.

THE late Sir David Carrick Buchanan, K.C.B., of Drumpellier, who died at the Mansion House, Coatbridge, on the 9th inst., was one of the many gentlemen who find pleasure in country life, and whose gardens are among their greatest enjoyments. Sir David's garden at Drumpellier is a very beautiful one, and at Corsewall, Wigtonshire, a property to which he succeeded some years ago on the death of the late Mr. Carrick Moore, he had a very fine collection of shrubs. It will be remembered that a photograph of Hydrangeas at Corsewall appeared not long ago in THE GARDEN. Sir David, who was in his seventy-ninth year, was held in the highest respect by everyone, and his munificent gifts of various kinds to the inhabitants of Coatbridge caused him to be greatly esteemed there. Among other gifts, in 1866 he presented the West End Park to the people of Coatbridge.

#### ANSWERS TO CORRESPONDENTS.

**Names of plants.**—M. A. H.—*Billbergia* sp., but specimen not complete enough to identify the species.—J. S. H.—The large rosy purple flower is *Ruellia macraurtha*; the pale yellow one, *Justicia caticotricha*.

**Semele androgyna** (BROOM).—This used to be included in the genus *Ruscus*. It is a vigorous growing climber that needs a greenhouse. The cladodes are arranged on the minor branches in such a way as to suggest long, hard, leathery, pinnate leaves of a deep green colour. It is a native of the Canary Islands, from whence it was introduced in 1713. This *Semele* is a valuable climbing plant for very large structures, as may be seen at the Crystal Palace and in the temperate house at Kew. It cannot be readily obtained from nurseries, though occasionally it may be met with, generally as seedling plants.

**Garrya elliptica not flowering** (H.).—Your Garryas ought to flower in the positions you describe. Perhaps you have got the female form, and, if that is the case, you will not get catkins of flowers as you would with the male form, the flowers of the female being very inconspicuous. If the plants are females it would be advisable to unroot one and replace it with a male. Cuttings of the *Euphorbia* you mention should be taken in spring either of the one year old wood with dormant buds, or young, soft shoots 4 inches long with a slight heel of old wood. In either case, very sandy soil must be given, and a close and warm propagating case must be provided.

**Sweet Peas—a correction.**—In Mr. Sydenham's article on this in third column, line 8, for Gorgeux read George Gordon, and the same in the next line. On page 95 for Countess Jewell, read Crown Jewel.

#### CATALOGUES RECEIVED.

*Tuberous Begonias, Lilies, &c.*—Messrs. T. S. Ware, Limited, Feltham, Middlesex.

*Chrysanthemums.*—Messrs. W. Wells and Co., Earlswood Nurseries, Redhill, Surrey (together with life-size illustrations of novelties for 1904); M.M. Vilmorin-Andrieux et Cie., 4, Quai de la Mégisserie, Paris.

*New Chrysanthemums, Seeds, and Plants.*—Mr. H. J. Jones, Ryecroft Nursery, 11ther Green, Lewisham.

*Florist's Flowers and Hardy Plants.*—Mr. John Forbes, Hawick, N.B.

*Lath Roller Greenhouse Blinds, &c.*—Messrs. W. Walters and Co., 16, Water Lane, Great Tower Street, E.C.

\* \* \* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

# THE GARDEN

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[FEBRUARY 20, 1904.]

## SOUTH AFRICAN PEACHES.

THE arrival, in perfect condition, of a box of South African Peaches is still enough of a novelty to make it worthy of a note. Amidst the conflict of opinion on the subject of imported Asiatic labour and the temporary depression of mining operations in South Africa, it is cheering to know that in certain localities, notably in Cape Colony, the fruit-growing industry is steadily making its way. On the fruit farms where these Peaches were grown both Kaffir and Coolie labour is employed, under English supervision. The season has been unusually hot and forcing, and fruit of all kinds has ripened so early as to make the work of in-gathering more than ordinarily a matter of rush and toil. From 6 a.m. to 7.30 p.m.—a long day in burning heat—all hands have been hard at work in the orchards; but, judging by the Peaches just received, the present summer has favoured the development of the crop more than last season, for they are altogether finer and more highly finished than some which arrived last February. As to flavour, they have a good deal of the fine aroma of the Nectarine, which lends some support to the view that this particular kind may be of hybrid origin. Those who can enjoy the luxury of having Peaches and Nectarines on their tables in February need not grudge their cost. A luxury it is, but by indulging it we may not only "think imperially," but in one small way act as well, for we stretch out a helping hand towards the building up of thriving settlements of our own country-folk on the far-distant African veldt.

One may well ask how it is possible for fruit so perishable to travel 7,000 miles over land and sea, and yet arrive in good condition. To begin with, of course, Peaches, Nectarines, and Plums are gathered before they are fully ripe, and with the utmost care to avoid bruising. The boxes in which they are packed are 3 inches to 4 inches deep and large enough to contain from two to three dozen fruits in a single layer. These boxes are strong, but are not tightly fitted together, as there is sufficient room for some circulation of air between the interstices of the boards. A strip of wood below each end also allows a current of air to pass between each box when the final stacking takes place for the voyage. Each fruit is carefully wrapped in soft tissue paper and

tightly imbedded in fine wood shavings so that no movement can take place. But even so, with the utmost care in handling and with the help of cold storage, it is one of the marvels of this marvellous age that such a feat should be possible.

## MY SEA-COAST GARDEN IN WINTER.

"Earth slumbers, and her dreams—who knows  
But they may sometimes be like ours?  
Lyrics of spring in winter's prose  
That sing of birds and leaves and flowers."

WINTER, and how short the hours of daylight; how much too short for all we have to do in them. Already the round red sun is dipping down behind the grey church tower, lighting it up with fires of purple and crimson. The too brief day will die in splendour.

And the old garden on the bare sea cliff, with the little lichen-covered copse that guards it, how does that look on this quiet winter's day? So pleasant, so restful as it lies in the reflected glory of the sunset, that it is still the place we love the best, and in which the happiest hours are spent.

Most of the hardest work is over now—the tidying up, the mending of the neglected lawn, the clearing of the copse from rubbish, the thousand things that always must be done in a garden that has too long lain uncared for. More than one spring and summer will it take to coax this unkempt wilderness into order. Digging borders that have been left untilled for many years, and are crammed with odds and ends and stumps and roots of things long dead, is not at all the same as turning over new ground or ground that has been treated fairly every season. "Wholesome neglect," however, has shown its bright side in the copse, for there the sweetest things that grow have long run riot. "Nothing that has a bulb to it will live in that garden," said many friends who thought they knew; "rats and rabbits will make a meal off every one." Even the earliest spring months proved them wrong. Scattered Crocuses and Snowdrops were the first to greet us, and after them whole drifts and sheets of Bluebells, sprinkling the grass beneath the budding trees with sky colour—"God's own blue"—and later on whole families of Poet's Narcissus, starry and scented, and spread about with the grace that comes of freedom.

But now on this quiet winter's day, so enjoyable after weeks of windy weather, these flowers of spring, with all the other garden folk, are sound asleep and dreaming, as they should be. A Primrose or two, prematurely wakeful, shall go unnoticed, but one or two sweet-faced, leaf-hidden Violets must be forgiven for peeping out. Stray Violets are always irresistible, and the tiniest bunch, if brought indoors, is more full of fragrance than

half a dozen sachets of Violet scent from Bond Street

Flowers may sleep, but we are wide awake digging, as usual, planting and replanting, a safe and easy thing to do when all the garden children are deeply wrapped in slumber. The kind soil of this north-east sea-coast garden (porous, but not poor), its lingering sunshine, and protracted autumn make it a difficult matter to get the summer borders clear. Marguerites will go on blooming well into December, and sweet white Alyssum positively refuses to be taken out and made a bonfire of. It still smells sweet and keeps its colour. How it happens that so many plants live on through winters here that must certainly have died down in a Surrey garden is always a surprise.

October comes and takes us unawares. We are not yet ready for the smart new-comers, who arrive in well-packed boxes—sleeping beauties wrapped up like dolls in soft white paper, and neatly-labelled, curious chrysalises whose butterflies are of the kind that grow on stems. These fine folk are all kept waiting; but at last they settle down, and we are free to think of other things—Sea Hollies, for instance, and Sea Lavenders, that might do well outside upon the cliff; but we will try them in the garden first. Growing sea plants will be a new experience. The roots of some of them alone are quite delightful, so tough and strong, giving promise of the sturdy flowers that by and by will follow. Roots are so full of character and so interesting. Once we begin to notice the under-world of fibres, tubers, and "growing points," there is no end to it. It is just as fascinating as the sunlit world of hough and leaf and colour.

In this old garden, where so many fair things have been naturalised, it behoves us to walk warily. We must neither crowd the canvas nor strike a jarring note; its simple charm must not be spoiled. What things we do put in must be chosen very carefully; we must have exactly what is right—no make-shifts—and the experience of one season has taught us what the garden likes and wants, a much more weighty matter than the mere gratifying of our own tastes. Not many Roses could be happy here—we are too wind-swept and sheltered corners are too few—but we can have a sunny bed of Monthly China Roses close to the house, along with Rosemary bushes and Pansies and Carnations and Mignonette. The soil is exactly suitable for Pinks, and a whole cliff's depth of sandy loam, fertile and clean, calls out for every plant that owns a bulb or anything like it. This is our cue. In go the Lilies, white and orange; they shall be laid among the sleepy Ferns in a spot where sheltered sunbeams will look after them. Blue and white and yellow and velvety Iris shall find space too, English and Spanish, with other treasures.

How the old gardener, who has known the place so long, and been its only guardian for many empty years, enjoys the fatted calf of

better times. It is pretty to see him at his work. Unpacking and planting something new is such a treat. How carefully he lifts the clumps with kind brown hands, and sorts them out and lays them on his barrow, while "onlooker" is carrying his spade. Such eloquence about that spade! Its wood feels warm and worn and polished, and its blade is thin and sharp from constant use; it can do anything, from rough work to the finest. How deftly its owner thrusts it through the mould—a dexterous twist, and lo! a hole of any shape or size he wants appears like magic. Each new arrival is taken up and looked at, then gently laid in its appointed place.

"Like pious children, one by one,  
He sets them head by head,  
And draws the clothes when all is done  
Closely about each bed,  
And leaves his children to sleep on  
In the one quiet bed."

There has been plenty to do, too, among the creepers and climbers on the old house walls. Such a tangle as there was all summer-time of Jasmine, Honeysuckle, Virginia Creepers, Dutchman's Pipe, and one or two old-fashioned Roses. Now we can see which is which, and bring them into order. How the dry stems rattled in the wind! They have been knocking against the window panes like castanets. It seems so strange now to recollect the honey-scented draughts of summertime that blew in through the open windows. Anyhow, an old garden, with all its faults, is better than a new one, and if the sea winds are too rough with it at times the fine days make it up. Nowhere are colours more brilliant than in a seaside garden. Perhaps it is the saltness of the air that makes them vivid, as sprinkled salt improves the colours of a carpet.

Even the banks put up for shelter, not for ornament, must not be grumbled at. In spring they are so full of yellow Primroses, blue Speedwells, and spotted Orchids; and as for the kitchen garden, we can humour that by growing dwarf things that do not mind the wind.

We promise ourselves much amusement in the summer, when old and new inhabitants wake up and meet. Bowing and nodding acquaintances will soon strike up under the breezy influences of sea winds blowing from the waves. Amongst other things we will have a Poppy garden, fringed and fragile, and Giant Poppies can all have ample room between the meadows and the cliff. The one thing we ought never to forget here (there is danger of it) is Miss Jekyll's maxim, "Where things are well, let well alone."

The evening of this winter's day was dignified by a new moon. Very yellow looked its delicate thin curve against the blueness of the darkening sky, and just one star of hope shone out beside it. Could we have done better than breathe a new moon wish that all the garden's pretty dreams and fancies might come true?

F. A. B.

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

### HELLEBORES FROM IRELAND.

Mr. Greenwood Pim sends from Monkstown, County Dublin, a dainty selection of the Lenten Roses. The colours are very beautiful, some quite self, and others with dark spots on an almost white ground. One named E. Muriel Pim is a warm chocolate-red, and of good shape. Mr. Pim writes: "A few Lenten Roses (Hellebores) for your table. They are most useful flowers at this dull season, and as hard as nails. E. Muriel Pim was self-sown, and came up with other dark forms round a plant of H. Commenzrenath Benary, which you know is white, with purple flush. By splitting the ends of the stem we find the flowers remain fresh for days when cut."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

February 23.—Royal Horticultural Society's Drill Hall Meeting, 12 noon.

March 8.—Royal Horticultural Society's Drill Hall Meeting. Horticultural Club, House Dinner at 6 p.m. Discussion opened by the Rev. Professor Henslow, on "Botanising Excursions."

March 9.—East Anglian Horticultural Club Meeting.

March 16.—Royal Botanic Society's Flower Show.

March 22.—Royal Horticultural Society's Drill Hall Meeting.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).  
April 19.—Royal Horticultural Society: Auricula and Primula Society's Show.

**Royal Horticultural Society.**—The prize of £10 offered by the council of the above society for the best essay on "Cottage and Allotment Gardening," has been won by the motto "Observe and Practice," Mr. C. Wakely, of Chelmsford. Owing to unforeseen circumstances the centennial dinner of the society, proposed to be held on March 3, is unavoidably postponed.—W. WILKS, *Secretary*.

**The National Potato Society.**—A meeting of the committee of this new body was, by kind permission, held in the Horticultural Club on Monday last, Mr. A. D. Hall, of Rothamstead, in the chair. The secretary, Mr. W. P. Wright, mentioned a request made that cottage garden societies be allowed to affiliate. This was agreed to, the annual fees being fixed at 5s. for membership not exceeding fifty, and 10s. for all societies having more members. Tenders as invited were received from various firms for the supply of the needful quantity of tubers for some twenty trial plots in diverse parts of the kingdom. The tenders of a northern and a southern firm were accepted, each one to send half the needful quantity. The total required would be about a ton weight. These tubers are to be sent to the various county trial plots direct by the consigners. Many letters offering various forms of advice were read. Generally the objects of the society were heartily approved of. The secretary reported the finances as being in a satisfactory state, so far as trials are concerned. It is hoped in the autumn it may be possible to hold a conference and an exhibition.

**The novel series of prizes at next season's shows of the National Chrysanthemum Society.**—The excellent suggestion that Mr. Cuthbert made on the occasion of the late December exhibition of the National Chrysanthemum Society has been taken up most enthusiastically by the executive committee and friends of that society. It will be remembered that the sum of five shillings is to be offered in numerous instances for the best blooms of certain specified varieties. The blooms are to be selected from those exhibited in the different competitive classes throughout the show, and exhibitors are also to have the opportunity of setting up individual flowers quite independent of existing competitions. The matter was thoroughly

discussed at a recent meeting of the executive committee, and the conclusion arrived at was that given above. Many interested in this novel scheme seem to think that it will now be an inducement to growers who are also exhibitors to bring their very best flowers to the National Chrysanthemum Society's exhibition rather than to retain a certain number of good flowers for other shows. The smaller growers will also have an opportunity of winning some of the prizes, as all stands or exhibits of cut flowers will be inspected for the purpose of ascertaining where the best example of each specified sort is to be found. It was announced that there were no less than 105 prizes of the kind offered, and this is a considerable addition to the already long list.—D. B. C.

**A cosmopolitan gardeners' society in Paris.**—The Société Française d'Horticulture de Londres has for many years done a good work in promoting the interests of young French gardeners in England, and also in a lesser degree of English gardeners going to France. We are very glad to see that a similar society has now been started in Paris. This has for its object the encouragement of special instruction among gardeners, and promotion of friendly intercourse between horticulturists of different countries. Gardeners of all nationalities are eligible for election. It is to be hoped that this society, which, by the way, is entitled "L'Avenir Horticole," will receive the support it deserves, for if rightly managed, and its efforts properly directed, it cannot fail to be of real value and assistance to young gardeners from England and other countries who may wish to spend a short time in France.

**Jasminum nudiflorum.**—In a note in THE GARDEN of the 13th inst. another combination of this plant with *Cotoneaster microphylla* is suggested, as well as the previous one of *Jasminum* and *Ivy*. May I suggest yet another way of using it, and one which I have found by experience to give much winter joy. I have always been eager to increase our winter beauties, as anyone can have a beautiful summer garden, but the real triumph is to carry beauty into winter. I longed to make the *Rhododendron* and other evergreen borders a little brighter, so I planted here and there among them groups of three plants of *Jasminum nudiflorum*. These, as they grew, I left to straggle rather freely among the evergreens, tying up only the tallest branches to a pole kept well out of sight in the middle of each triangle. Between the *Jasmine* I planted large groups of *Lilium croceum*, which later on gave a most beautiful effect as of *Lilies* growing in a large natural basket of tender green *Jasmine*. The *Jasmine* arching freely over the *Lilies* was like the tall handles of a basket, and gave a delightful picture that quite surpassed all I had planned. I wish I could send you a photograph, but, alas! the garden is mine no longer, and only the happy memory left. But let me sound one note of warning. The *Jasmine* and *L. croceum* group should not be among the purplish magenta *Rhododendrons*, as the orange and magenta reds are fiercely discordant, but with white *Rhododendrons* and almost all shades of *Azaleas* they are most harmonious.—A. J. BRYANS, *Woodside, Harrow-on-the-Hill*.

**Begonia Gloire de Sceaux.**—So much attention has of late been directed to Messrs. Veitch's charming hybrids of *B. socotrana* and the ubiquitous *Gloire de Lorraine* that there is danger of overlooking the merits of some other desirable sorts, such as *Gloire de Sceaux*, which for flowering in midwinter and during the early part of the year has few equals; it is also quite distinct from any other. It is of vigorous growth, forming a stout branching specimen, well furnished with ample foliage of a rich bronzy olive hue. For the beauty of its leafage alone it is well worth growing, but when in addition the large clusters of rosy pink blossoms develop, its beauty is, of course, greatly enhanced. It is by no means a novelty, having been distributed in 1887 by M.M. Thibaut et Keteleer, of Sceaux, in France, and announced as a hybrid between *B. socotrana* and *B. subpeltata*. Doubts have been expressed as to the correctness of this, but there can be no difference of opinion as to its merits.—T.

**A pretty combination for the greenhouse.**—I am sending a photograph of a very pleasing arrangement in my small viney. It consists of a group of Arum Lilies and the blue Coleus (*C. thyrsoideus*), which look uncommonly well together. The flowers of the latter are about at their best with me just now, and as the rather lanky and leafless stems are hidden by the foliage of the Arums there could hardly be a better way of arranging them.—S. G. R. [Unfortunately, the photograph was not suitable for reproduction.—En.]

**Potatoes in Ayrshire.**—As is well known, the sea-board parishes of Ayrshire are favoured with a climate which is admirably suited for early Potatoes, and the acreage under these is increasing from year to year. Last season was a late one, and planting was considerably delayed. The open weather experienced in the county this year has caused some of the growers, especially on the Carrick shore, to begin early, and the first planted were on the farm of Girvan Mains on the 11th inst.

**A note from North Wales.**—The weather in this part of the country at the present time is causing grave anxiety. The amount of rain which has fallen here since the 1st ult. is enormous, much more than at this time last year. We have only had eight fine days in 1904. Sowing any kind of seeds or planting, either by farmers or gardeners, is quite out of the question, as the land is sodden, and in many cases under water. The winter has been very mild so far. We have had very little snow and frost. The last heavy rains were very cold, with north-east winds.—J. S. HIGGINS, *Rdg Gardens, Corwen, N. W.*

**University College, Reading.**—Mr. Alfred Palmer, Wokefield Park, Berks, has made a gift to the above college of a site for a new college, and the following munificent donations have been given: Lady Wantage, £10,000; Mr. G. W. Palmer, M.P., £10,000; Messrs. Sutton and Sons, £6,000; Mr. J. Herbert Benyon, £3,000; Mr. G. Herbert Morrell, M.P., £1,000; and Mr. Owen Ridley, £500. At an extraordinary general meeting of the court of governors recently held, the principal (Mr. W. M. Childs) said that it was not alone the munificence of Mr. Alfred Palmer which had earned and which would receive their thanks; it was the fact that in addition to this munificence it came precisely at the moment when it would be of permanent help and value to the institution. It was also his privilege to say that Mr. Martin John Sutton, as head of the firm of Sutton and Sons, had authorised him to say that the firm he represented would present to the building fund of the college the sum of £6,000, payable in three annual instalments.

**The Southern Counties Carnation Society broken up.**—A meeting of the committee of the above society was held on the 9th inst. to receive a statement from Mr. W. Garton, jun., the hon. secretary and treasurer. Mr. Garton, addressing the meeting, said that when he initiated the Carnation Society he hoped and expected that after the first year or two it would be made quite or nearly self-supporting, and considering himself mainly responsible for the formation of the society, he had, in the hope that things would mend, made himself personally liable for the deficits on their show accounts. Unfortunately, after an experience of five shows, his hopes had not been realised, and instead of his liability decreasing it was increasing; every effort to improve the membership had failed, and so he felt he could not continue this responsibility single handed any longer, and therefore he was reluctantly compelled to place his resignation in the committee's hands. Mr. Garton took this step with the greatest regret; he was proud of the shows they had held, which he believed would compare favourably with any Carnation show held in the country, but there was such a thing as paying too much for a hobby. If the society could be continued under new management he would assist it in every way he could, short of taking any responsibility, and would help the funds with a liberal subscription. After a long discussion, during which the meeting learned that business arrangements would compel Mr. Hayter, the assistant secretary, to resign also, it was unanimously resolved to

accept Mr. Garton's resignation with the greatest regret, the warmest thanks of the meeting being accorded to that gentleman for the generous support he had given the society during its six years existence. It was also unanimously resolved that this meeting being of opinion that it will not be possible, under the present circumstances, to make the shows self-supporting, recommend the society should be discontinued from this date.

**Proposed Gardeners' Association.** Mr. A. Dean writes: "Kindly permit me to mention in your columns that the adjourned meeting of gardeners and others interested in the proposed Gardeners' Association will, by kind permission, be held in the room of the Horticultural Club, Hotel Windsor, on Tuesday next, at 2 p.m. sharp, when the sub-committee's report will be presented. There are indications that a good discussion will follow. The meeting must determine whether such an association shall be formed or not, and if formed, define what are to be its aims and objects."

**Edinburgh Botanical Society.**—At a meeting of this society, held in Dowell's Rooms, George Street, Edinburgh, on the 11th inst., Professor Trail presided over a good attendance. A most interesting list of alien plants collected in the Edinburgh district was contributed by Mr. W. Evans, F.R.S.E., and Mr. W. E. Evans. This was accompanied by a number of specimens of the plants, and interesting details of the places where they had been found. As might be expected, few were of garden interest, but among these was *Delphinium Ajacis*. Nearly 300 had been collected in all in 1903, the majority coming from Leith Docks and other situations where grain had been deposited. Mr. W. Evans and Mr. W. Edgar Evans were heartily thanked for their contribution. A similar compliment was awarded to Mr. Alexander Cowan, Penicuik, for an admirable report of the annual excursion of the Scottish Alpine Club last year. This had been to Fort William and Arisaig, which was a very interesting one, although few rarities were met with.

**Forestry at Perth show in 1904.** The special committee of the Royal Scottish Arboricultural Society charged with the Forestry exhibition, in connexion with the Highland and Agricultural Society's show there, have issued the prize list and an invitation to the members of the two societies to contribute. Prizes will be offered as follows: For a collection of three varieties of timber grown in Scotland—Scots Pine, Larch, and Norway Spruce; collection of timber of any other three conifers grown in Scotland; collection of three varieties of timber grown in Scotland—Ash, Oak, and Elm; collection of any other three varieties of timber of broad-leaved trees grown in Scotland; for an approved report on the damage done by insect pests injurious to forest trees, and the measures that have been successfully adopted for their extermination; specimens showing the comparative quality of Larch timber grown on different soils and situations, and the respective ages at which it reaches marketable size and maturity; examples showing the best methods of utilising small wood in the manufacture of fancy wood articles, turnery, wood wool, &c.; for a scientific instrument for expeditiously obtaining the diameter of trees at a given height; and for the best exhibit of timber preserved by any process that is practical and economical.

**The Black Currant Boskoop Giant and the mite.**—Evil times have fallen upon the Black Currant bushes in many gardens, and various remedies have been recommended to bring them into a healthy condition, so far with poor results, as once the mite gets a hold upon the trees it appears impossible to get rid of it. Two years ago we cut our oldest bushes down with the intention of getting clean new growth, but I regret to note that the pest reappears. Though considerably weakened, it is not vanquished. Some may have been more fortunate, and if they can give your readers advice it will be welcomed by many growers, as the loss of these fruits is unfortunate. I can only offer a partial remedy, and that is to plant the new Boskoop. So far it has been proof against the mite. It is yet early days to say whether it will continue proof against the pest;

but it has several good points in its favour. It is a strong grower, more vigorous than some of the older sorts, with larger and longer bunches of excellent flavour. It is late in flowering, so that it stands a better chance of escaping spring frosts. Its freedom so far from the mite should make it a favourite. It is only fair to state that it is well to keep it away from infested bushes when planting a new quarter.—G. W. S.

**Royal Horticultural Society.**—The next fruit and flower show will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. A lecture by Mr. R. Lewis Castle, of the Duke of Bedford's Experimental Gardens, on "Pomology" will be given at three o'clock. At a general meeting of the society, held on Tuesday, the 9th inst., eighty-nine new Fellows were elected, making a total of 261 elected since the beginning of the present year.

**The Royal Horticultural Society's entrance fees.**—The exemption of the class of future Fellows of the Royal Horticultural Society, described as "working gardeners," from the payment of the newly-imposed entrance fee of one guinea renders it needful that a very clear definition should be provided. As at present worded the assumption is that only gardeners employed as "workers" in gardens are exempt. How would such a definition affect gardeners whose work is done, and now exist on other means than by work? How will it affect those employed in the horticultural trade as managers, foremen, or persons who have held such positions, and have retired from them in old age? Will the exemption apply to the gardening amateur, who, all the same, may be a poor man? Is he a "working gardener?" The term used in describing the exempted class does not clearly define what is meant, and it is for that reason the council should issue a clear definition of what class or classes of persons engaged in gardening it is proposed to exempt.—A. D.

**Potatoes at Wisley.**—I am extremely pleased to learn that the council of the Royal Horticultural Society, because of the large numbers of diverse varieties of Potatoes sent in for trial, have resolved to plant these at Wisley, and have an ordinary trial of them there this year. That is very satisfactory, and will lend additional interest to the new gardens, and enable many members of the fruit committee to see the new ground for themselves. I fear it will not be possible to associate with the Wisley trial this year one of the trials of Potatoes proposed to be conducted in different parts of the kingdom by the National Potato Society, but, if the council would obtain small quantities of the same varieties as is proposed to be tested in those trials, the general trial at Wisley would be all the more interesting. The varieties the National Potato Society propose to have severally tried are Up-to-Date, Sir J. Llewelyn, Northern Star, Edward VII., Empress Queen, Evergood, British Queen, Charles Fidler, Ninety-fold, The Factor, Cramond Blossom, Good-fellow, and Scotch Champion.—A. D.

**The early distribution of Chrysanthemum novelties.**—The trade specialists, as a rule, distribute their new Chrysanthemum in fairly good time in the spring. If the novelties are to be represented in good form in the succeeding autumn displays, the plants should be in the grower's possession quite early in the spring, or his chances of a success will be somewhat remote. Too often plants are not ordered until the first batch of novelties is being distributed, and in that case less promising plants, and those, too, that were propagated much later than is desirable, have to be acquired instead. Seeing that the life of a new Chrysanthemum is now so short, each novelty being so soon superseded by better ones, it is important that the most be made of it during the first year of its distribution. Chrysanthemums, like other plants, differ much in character and constitution, and while with some new sorts it may be possible to achieve success with a small plant taken in hand in the spring, with another variety equal in appearance one may fail altogether. A long season of steady growth is much to be desired.—D. B. C.

## THE FLOWER GARDEN.

### CLASSIFICATION OF SWEET PEAS.

**S**WEET PEA growers and lovers alike, who follow the progress of the National Sweet Pea Society, cannot fail to recognise the good work being carried out by the committee of that body in its endeavours to classify aright the numerous varieties now in cultivation, and by publishing the results of its deliberations enables growers to choose the very best varieties to grow in each section. I have been much interested in the lists published in *THE GARDEN* of the 23rd ult., giving the results of the special audit of varieties shown at the National Sweet Pea Society's annual exhibition in 1903.

use also; his list appeared in *THE GARDEN* of the 23rd ult.

In *THE GARDEN* of the 6th inst. Mr. Robert Sydenham indulges in a friendly criticism of Mr. Aldersey's list. I question if there is a grower in England (unless it be Mr. Henry Eckford) who has taken a greater interest in the Sweet Pea than Mr. Sydenham, and in responding to his request that other growers should give their opinions on the respective lists, I wish it to be understood that not for a moment do I claim to be able to produce a better list than either Mr. Aldersey or Mr. Sydenham. But rather to endeavour to prove the almost impossibility of two growers in different parts of the country holding similar opinions as to what are really the best varieties, I will state where my experience makes me agree or disagree with your contributors. In the class for whites,

Dorothy Eckford, Blanche Burpee, and Sadie Burpee I think should stand in the order given. But should a fourth be required Emily Henderson would be my choice in preference to Mont Blanc; the latter variety has proved so weak in constitution with me that I have discontinued growing it. For blush varieties I would choose Duchess of Sutherland and Sensation. Cream-coloured, so called by Mr. Aldersey, or creamy buff by Mr. Sydenham, is a section ignored by the National Sweet Pea Society. Mr. Sydenham's definition is, I think, the more correct; the three varieties standing first in my favour are Agnes Johnson, Gracie Greenwood, and Countess of Lathom; while Lottie Hutchins, as given by Mr. Aldersey, I should put in the class called Fancies (or varieties having more than two distinct shades); it is by far the most beautiful of this section (when true to character). Of the so-called yellows, but better still pale primrose, I should select Hon. Mrs. Kenyon, Mrs. Eckford, and Queen Victoria, leaving out Mrs. Ormesby Gore.

Coming to the pinks, I agree with Mr. Aldersey's selection. I know that many growers, and especially Mr. Sydenham, assert the superiority of Prima Donna over Lovely. This seems strange to me, for Lovely has always been 50 per cent. better with me than Prima Donna. It may be that the heavy soil here or the locality suits it better, but I have exhibited it a great many times, and I think I can say without boasting that I have never in competition seen Prima Donna to equal it. I think Mrs. Dugdale is not to be compared to Prince of Wales, Lord Rosebery, and Her Majesty. I should prefer to place it with Royal Rose in the light rose section, but I do not care for either of these two. I think Mr. Sydenham's description of Miss Willmott as salmon-rose is correct. Lady M. Currie was my favourite here before the advent of Miss Willmott, but the latter has altogether eclipsed the former. It may be possible to obtain a richer colour in Lady Mary, but in size of flower

and in constitution Miss Willmott has no rival. I agree with Mr. Sydenham as to Gorgeous being a bicolor, and in this respect I certainly think the society is not quite fair to this section in lumping them all under one heading. By their system we get Triumph heading this long list of bicolors to the exclusion of Jeannie Gordon (in my opinion the best of them all). The class for crimsons and also that for lavenders occupy a most enviable position; in that we all agree. Strange to say, Captain of the Blues has never appeared to me as a light blue, so I join hands with Mr. Aldersey here. On the other hand, I have always considered Countess Cadogan a light blue, but Emily Eckford by far the best, although rather weak in constitution; while I consider Duke of Westminster the very best in the violet and purple section. I also consider Duke of Clarence a first-class variety. I think Mr. Aldersey is quite fair in classing Dorothy Tennant, Mrs. Walter Wright, and Admiration as mauve varieties, though the first-named is certainly much the darkest. I have always preferred Black Knight to Othello. Captivation I consider the nearest to a magenta that we have, while Lord Kenyon I look upon as rose. Duchess of Westminster is, I think, the poorest variety I have grown.

Wistow Hall Gardens, Leicester. F. J. CLARK.

### DOUBLE DAISIES.

It is in the spring garden in particular that we see the Daisies in the fulness of their beauty vying with the green and variegated Arabis, the Forget-me-not, the Tufted Pansy, the Aubrietia, and other things of dwarf growth. Perhaps many may be inclined to regard the Daisy as commonplace, but at the same time there are many varieties. Here then is an opening for improvement, though it is not easy to see where such may come in when we remember the brilliancy of the old Double Crimson or the purity and size of either The Bride or Snowflake. The last is that with broad, flat petals, and is perhaps the finest white bedding variety. The Bride has flowers of exceptional size, too, and they are produced on stems 9 inches long. Rubens is possibly the old crimson kind above mentioned, and never fails to yield a great display of flowers; the colour is really crimson-scarlet. King of Crimsons is another of very striking colour, and one to be strongly recommended. There are also the Hen and Chickens, which is more curious than pretty, and a variety of crimson-red freckled with white. Apart from these are two others of equal, if not greater, importance, viz., Dresden China and Alice, of which we give an illustration. These are very beautiful forms: the first is a very charming tone of pink, the second of more salmon hue and strongly quilled. Upon more than one occasion at the Temple show and at other times we have greatly admired the fine array of Alice set up by the Misses Hopkins, of Mere, Knutsford, and who, we believe, were the introducers of this excellent variety. Dresden China has also been largely shown by the Misses Hopkins.

It need hardly be said that Daisies will flourish in nearly every sort of soil, and where it is desired to increase largely the stock of any existing kind the plants should be pulled to pieces in spring after flowering is over and bedded out in any good garden soil. How well these things grow in moist and even clay soils is well known, and the fact at least should encourage a freer use of them for bedding and other work in the districts where such soils obtain.

E. H. JENKINS.

### EVERGREEN HOLLIES.

#### ILEX AQUIFOLIUM AND ITS VARIETIES.

**A**MONG all the introductions from other countries and climates that have poured into this country during the last 150 years, our native Holly still holds its own as one of the best, if not the very best, of all evergreens for general use in the gardens of Great Britain. It has not, of course, the gorgeous flower-beauty of the Rhododendron, nor the lofty stature and



A GROUP OF THE SALMON QUILLED DAISY ALICE.

This should prove of great value to intending growers, but I should like to have seen a full revised list of varieties (as given in the society's report) published in *THE GARDEN* at the same time. In compiling this list the committee have arranged the varieties in each section in alphabetical order. I have no doubt they have a good reason for this, but if I may be allowed to say so I should prefer to see the varieties arranged according to their recognised order of merit. Many amateurs cannot afford to grow more than one or two varieties in each section, therefore they would naturally wish to select the very best. The National Sweet Pea Society's lists, being the result of the opinions of a great many growers situated in all parts of the country, should be of the greatest value. Nevertheless, a classification list by so good a grower and exhibitor as Mr. Hugh Aldersey should be of much

plumy grace of many exotic Firs and Spruces, but it is always bright and cheerful in the lustrous, deep green of its foliage, and more especially so in winter, when laden with its bright red fruits. What is, perhaps, its greatest merit is that it will grow in any part of the country, on all but the most arid soils, and almost equally well in shade or full sunlight.

Naturally a tree of the middle size, and attaining from 30 feet to 50 feet in height (Loudon mentions examples 60 feet to 70 feet high), it can still be kept permanently at the size of a small bush a few feet high by pruning. For forming an evergreen hedge it is probably the best of all plants, superior even to the Yew, because it will thrive where that will not. It has sported into numerous and very varied forms. In colour, in shape, and in size of leaf, as well as in habit, one may find almost every form that cultivated plants assume among the garden Hollies. Thirty years ago the late Thomas Moore monographed the varieties of the common Holly in the *Gardeners' Chronicle*, with the help of the leading cultivators of Holly in the United Kingdom. Even at that time he was able to name and classify 150 varieties.

Although, like many monographers, Moore probably over-divided his material and relied too much on unimportant and transient characters, his was a genuine and valuable attempt to classify the garden Hollies. The fine collection of Hollies at Kew is named in almost complete accordance with Moore, and his nomenclature has been followed in the "Kew Hand List." In the following notes a representative fifty varieties are briefly described :

#### VARIETIES OF ILEX AQUIFOLIUM.

*Altaclarensis*.—This is a large-leaved variety, dull green, with regularly-placed spines on the margin. The bark is dull purple. The variety is represented by a good specimen at Kew 25 feet high and 13 feet through.

*Angustifolia*.—A green variety, with small, narrow leaves, marked by the large, weak spines set on portions of the margin. It is of slender elegant habit, and can be distinguished from other varieties of a similar type by a large proportion of its leaves having the terminal one-third without spines.

*Argentea* (the "silver" Hollies).—Under this name are grouped several of the Hollies with white or cream-coloured variegation. They include some of the brightest and most ornamental of all the varieties—*argentea longifolia*; *argentea marginata*, the old silver-variegated Holly; *Argentea medio-picta*, or the "Silver Milkmaid," with a whitish blotch in the centre of the leaf; *argentea pendula* or Perry's Weeping, one of the most beautiful of Hollies both as regards habit and leaf-colouring; and

*Argentea regina*, the "Silver Queen" Holly, probably the best of all the "silver" Hollies, and especially marked by its broad, well-defined border of white on the leaves.

*Atravirens*.—One of the big-leaved Hollies, the foliage being dark, shining green, and stout in texture.

*Aurea* (the golden Hollies).—As in the case of *Argentea*, several of the best variegated Hollies are grouped under this name. *Aurea*

*marginata* may be regarded as the typical golden-variegated Holly; *aurea medio-picta*, the "Gold Milkmaid," is marked by the large irregular yellow patch in the centre of the leaf, and is the counterpart of *argentea medio-picta* among the silver Hollies; *aurea pendula*, or "Waterer's Gold Weeping," a handsome pendulous form, whose leaves have a broad, irregular, but well-defined yellow border; and *aurea regina*, the "Golden Queen" Holly, generally considered the finest of all this group; it is a strong grower, and is richly variegated, the greater part of the leaf being golden.

*Balearica*.—A fine, big-leaved green Holly, with a few irregularly set spines, or occasionally none at all.

*Cumelliaefolia*.—The variety we grow at Kew under this name I regard as the finest of the green-leaved sorts. Of erect, pyramidal habit and quick growing, it has leaves 5 inches to 6 inches long, often entirely without spines and rarely with more than three or four; they are usually less than half as wide as they are long, and of the deepest and most lustrous green. This variety is also known as *laurifolia longifolia*.

W. J. BEAN.

(To be continued.)

## NOTES ON HARDY PLANTS

### THE WINTER ACONITE IN LINCOLNSHIRE.

EVERYONE knows the quaintly beautiful flowers of the Winter Aconite (*Eranthis hyemalis*), each so snugly nestled in the deeply-frilled bracts that surround it as to make a perfect miniature posy in itself, and it might seem superfluous to draw attention to it now, were it not that one can hardly have too many of this earliest of hardy flowers. The Winter Aconite is very accommodating; it

will cover the surface of a bed of shrubs with a carpet of gold and green, is perfectly at home on grass land, thrives very well beneath the branches of large trees, as is shown by the accompanying illustration, and is also worthy of a place in the border proper. In soils that are exceptionally cold and wet the Winter Aconite sometimes dwindles away. In Lincolnshire its value as a market flower is being tested, and we have lately seen flowers offered for sale in the streets of London. Each forms such a dainty buttonhole that probably there will be a good demand for it. T.

### SAXIFRAGA FLORULENTA.

IN the genus *Saxifraga* we have many very beautiful plants, and although the great majority are of the easiest culture, some tax the skill of the grower. Some, too, are difficult to procure from the ordinary sources of supply, and even at a high price are almost unobtainable. Such a species is *S. florulenta*, of which, although expensive, there seems at present to be a considerable stock held in these British nurseries where alpine flowers are largely grown. *Saxifraga florulenta* is such a distinct-looking plant that it is easily recognised if it has once been seen, although it is not possible to put its characteristics into such words as will enable anyone to distinguish it by a written description alone, especially in a genus like this, where the species are so numerous. This remark about the ease with which it can be recognised refers to the plant when out of flower, for, unfortunately, its specific name of *florulenta* (slow-flowering) is too literally correct to please an ardent admirer of Saxifrages in flower. Although we may have *S. florulenta* for a number of years, we may never have the privilege of seeing it in bloom.

It is thus little wonder if those who have described its flowers, and who, like myself, have seen it in bloom, differ in the accounts of their colour. Thus I see them called pale lilac by one, crimson by another, and M. Correvon, who is as likely to have seen it as any one, calls it "d'un beau rose," which, I believe, is as near the colour as we are likely to arrive. They are rarely



A FEBRUARY PICTURE—THE WINTER ACONITE UNDER BEECH TREE IN LINCOLNSHIRE.

produced, so that it is not surprising that so few know this species. The whole plant when in bloom is said to grow from 5 inches to 12 inches high, the flowers being in a raceme, and about half an inch long. The rosette of leaves is a very pretty one, varying from 2 inches or 3 inches to as much as 7 inches across. The spatulate leaves are pale green, and have a more leathery appearance than those of most others of their class. It is, unfortunately, one of the species which die after flowering, so that unless it produces seeds there is every chance of losing it after (if ever) it blooms. Still more unfortunate is the fact that it is not easily cultivated, and I have come across it this winter in a very unsatisfactory-looking condition, even where it was under glass. The most healthy plants I have seen were at the base of a terraced rockery in a dry district, in a half-shaded situation. I am growing it on an east exposure, but a little higher up on the rockery than the others referred to. This is because I am of opinion that in my moist climate there is a possibility of this Saxifrage being too wet if on a lower level.

I have written of this Rockfoal at some length, as it is one which will create a good deal of interest in any garden where it can be successfully cultivated, and, above all, well flowered. I can only add that it comes from the Maritime Alps, where it grows at an altitude of from about 6,000 feet to 7,500 feet. S. ARNOTT.

*Carsethorn, by Dumfries, N.B.*

### BULBOUS IRISES FOR TABLE DECORATION.

FOR some years I have grown several of the dwarf Narcissi in ornamental bowls in fibre without drainage, as recommended by Mr. Robert Sydenham and others, and this season I have tried the experiment with some of the hardy bulbous Irises. For this purpose I chose *I. Heldreichi*, *I. reticulata*, *I. Histrio*, and *I. Histrioides*. These I planted in early autumn in the fibre in tiny bowls the size of a tennis ball, one bulb in each. I was very doubtful of success, but the result has been most satisfactory. *I. Histrio* bloomed first, closely followed by *I. Heldreichi*, while *I. reticulata* is in strong bud, and should be out in a day or two. *I. Histrioides* has failed to flower, and is the only disappointment, but at that I am not particularly surprised, as I have found it a shy bloomer under any conditions. Anything more charming than these little flowers thus grown can hardly be imagined; placed here and there in their dainty little bowls on the luncheon table they cannot fail to be admired by everyone. I say luncheon table advisedly, as their colours and ornamental markings under artificial light, of course, fail to produce the pretty effect that they do by daylight.

*Rye.*

F. HERBERT CHAPMAN.

### THE FRUIT GARDEN.

#### SPRING DRESSING FOR OUTDOOR PEACH TREES.

FOR the benefit of those who grow Peaches on open walls I should like to mention what I have found for some years to be a valuable dressing for Peach and other trees on walls. Especially is this the case where the walls are old and the pointing bad from much nailing year after year, consequently giving good winter quarters for the eggs, &c., of insect pests. Red spider is perhaps the worst insect the Peach cultivator has to contend with. I venture, however, to say that any grower who will adopt the practice I have followed for some years will find little trouble from this dreaded pest.

About the first week in March, or immediately before the opening of the blossoms, I prepare a mixture as follows, using for the purpose of mixing a bucket or vessel that will hold four gallons: First dissolve 1 lb. of soft soap, or carbolic soap would perhaps be still better, in half a gallon of hot water. Six pounds of flowers of sulphur may

be put in the bucket and the soapy water added by degrees, mixing with the hands, so that when sufficient water has been added the sulphur will be of the consistency of thick paint and quite free from any lumps. To this add half a gallon of Bentley's Quassia Extract and one quart of Tobacco water, stirring all well together and adding sufficient water to fill the bucket. Half a gallon of this mixture may be added to three and a half gallons of clear water, and while applying it to every inch of the Peach wall, keep the mixture well stirred with the syringe, otherwise the sulphur will quickly settle to the bottom of the bucket.

I find it a good plan to commence at one end of the wall and syringe behind one, and when the opposite end is reached reverse and do the same. By this means the trees and wall are thoroughly wetted, and when dry will be as yellow as sulphur can make them. A dry, sunny afternoon is the best time for applying the mixture. The quantity mentioned—four gallons—is sufficient to make 32 gallons, and is just enough for our Peach wall 120 yards long and 10 feet high. The proportions for a longer or shorter wall are easily ascertained. I have also found great benefits from the use of this mixture on Plum, Cherry, Pear, and Rose trees on walls. It has the advantage of being absolutely safe in application, is not very expensive, and the benefits are almost incalculable.

*Lathom Gardens, Ormskirk.*

B. ASHTON.

#### RAISING BLACK CURRANT BUSHES.

THE thanks of all who are in any way interested in the culture of the Black Currant, either for private use or for market, are due to you for bringing this subject so prominently before our notice on page 72. I know from experience that no greater mistake can be made than to attempt to grow Black Currants successfully on the stem system. Here, in Norfolk, the Black Currant is largely grown both by the cottager and the market grower, and it is a most remunerative crop. A few of the growers still adhere to the old principle of raising their bushes with stems, and I am sorry to find that some nurserymen still insist on raising them in the same way. I was recently looking over two large plantations of Black Currant bushes. Both were planted four years ago, and both occupy ground in the same field, the soil of which is light, rich, and loamy, and most suitable for growing either bush fruit or orchard trees. The one plantation was made up entirely of bushes with stems or shanks about 12 inches in length; the other was planted entirely with bushes grown from cuttings that were not disbudded at all. The former are now in a most unhealthy condition, and are, in fact, useless, while the latter are strong, healthy, and vigorous, and likely to produce heavy crops of fruit for several years to come. The grower of these bushes told me that the crop taken from the bushes with stems was not more than half the weight of that taken from the other bushes, and the quality was nothing to be compared with it. I was also shown a batch of young plants struck from cuttings not disbudded last season, that were in due course to be planted out this season, and will occupy a twelve-acre field. This will show the confidence the grower has in planting bushes grown from plants that have not been disbudded in the cutting stage. Young plants should be cut hard back the first season. It is a great mistake to leave the shoots of newly-planted bushes long. Encourage all growth from as close to the ground as possible.

T. B. FIELD.

*Ashwellthorpe Hall Gardens, Norwich.*

#### PEAR PASSE CRASSANE.

THE splendid dish of fruits of this Pear shown by Mr. Woodward, Barham Court Gardens, Maidstone, at the Drill Hall last week is opportune, for it serves to remind us of the value of this delicious winter variety. Its best season is January and February. When well grown this Pear is excellent. It is, however, somewhat uncertain, and should be given a good position on a wall. Some of the finest fruits of Pear Passe Crassane that we have seen were shown by Mr. Woodward.

## TREES AND SHRUBS.

### EURYA LATIFOLIA VARIEGATA.

IN commenting on the different plants grown by Mr. Petrick at Ghent (*THE GARDEN*, page 103), mention is made of this *Eurya*, and surprise is expressed that it does not find more favour. The same thought has often struck me, for it is in every way a neat-growing plant, and the foliage is richly coloured, in addition to which it is almost hardy, so that it can be used for decoration in positions where such subjects as *Crotons* and *Dracænas* would soon perish. In general appearance this *Eurya* bears a certain amount of resemblance to a *Camellia*, but the leaves are longer in proportion to their width, and are not quite so thick in texture. Unlike most plants, the variegation does not consist of any regular markings, for the leaves when young present an almost indescribable blending of white, yellow, pink, and green of different shades, but as the leaves mature a good deal of the pink disappears. Even if used in draughty corridors and such places where the plants get covered with dust, the smooth, glossy character of the leaves admits of their being readily cleaned. In the particularly favoured districts of England and Ireland it can be regarded as a hardy shrub, but throughout the greater part of the country greenhouse treatment suits it best. It has been known for forty years or thereabouts, but there is no recorded instance of its flowering till 1894. This happened in Cornwall, and the specimens being submitted to Sir Joseph Hooker he decided that it was not a *Enrya* at all, and named it *Cleyera Fortunei*. As such it was figured in the *Botanical Magazine* tab. 7434. As small plants it may sometimes be seen at the different summer exhibitions used as an edging to groups of shrubs or for similar purposes. It is, however, not only as small plants that it is valuable, but good bushy specimens 4 feet or 5 feet high form striking objects in the conservatory. Propagation by means of cuttings is not a difficult matter, the best cuttings being furnished by the half-ripened shoots on plants that have been grown under glass. A length of about 4 inches is very suitable for the cuttings, which should be dibbled into well-drained pots of very sandy soil, and placed in a close propagating case, kept a little warmer than the cuttings have grown in. Special care must be taken not to allow them to flag before insertion.

H. P.

### ULMUS PUMILA.

SINCE the note on this Elm appeared in *THE GARDEN* last week (page 111) we have had the tree photographed, and refer our readers to the information there published. It is a tree of much interest and beauty.

### SHADE TREES.

(Continued from page 111.)

#### NORWAY MAPLE.

THE Norway Maple appears to be the best Maple we have for street use, though most of the trees I have seen are still comparatively young. Care must be taken to prevent its heading too low and making too dense a shade, but this can be easily done by timely and skilful pruning. Like the Sugar Maple, it suffers from dust and smoke, though not to the same extent, while it endures other street conditions much better, as may be seen by comparing the two species in any of our cities. After the first two or three years it makes a strong and rapid growth, and develops into a shapely tree, well adapted to street use, and free from any serious pests.

#### GINKGO.

The Ginkgo is a new and very promising tree from Japan. There is a fine avenue of them in Washington, and they seem to stand the winter as far north as Boston, where several young trees have recently been planted. At Rochester, the extremities of the lower limbs are often winter killed, and in Northern Germany it cannot be successfully cultivated on account of the severe cold and injury



to its branches from snow. This tree is in many ways an ideal street tree, and is without enemies of any kind. One must wait many years for shade, however, and the form of the tree must be adapted to street use by careful pruning.

The indications are that the Ginkgo will make a valuable addition to our list of shade trees; but experiment alone will definitely determine its value. A new tree often has many advantages in the way of soil and attention which would work wonders if bestowed to an equal degree on some ordinary and less esteemed species; while it might be difficult to say just what effect the vigorous conditions under which many of our city trees exist would have upon the species newly introduced. It is to be hoped that the Ginkgo will not have to suffer all that some other trees have borne.

**ASH.**

The Ash is a rapid grower and practically free from insects and diseases. Its foliage does not appear so early as to exclude the sun from the soil in springtime. The wood is strong and valuable, but the branches are badly deformed by the wind. As its roots lie near the surface, it is adapted to shallow soils. Thus far the Ash has not been very much used in cities. Of the various species of this tree the White Ash is much the best.

**HACKBERRY.**

The Hackberry is another of our common native trees which deserves to be more frequently planted. It is shapely, not choice as to soil, grows rapidly, resists drought, is easily grown from the seed and easily transplanted, and is free from any serious diseases. Various leaf-eaters and gall insects attack its foliage, and its branches are often disfigured by distortions attributed to a gall mite and a powdery mildew, but none of these troubles seriously injure its value as a shade producer nor endanger its life. It is said to be frequently used for shade in the west.

**SWEET-GUM.**

The Sweet-Gum develops rapidly and well in a great variety of soils, and is practically free from insects and fungus attacks. The beauty of its foliage in autumn more than compensates for the extra care required to transplanting and the litter caused by its fruits.

**KENTUCKY COFFEE TREE.**

This tree can be grown only in rich damp soil. I have seen it very rarely in cities, but the specimens I have observed were very handsome, and I think it deserves a trial in soils to which it is adapted.

**ELM.**

The merits of this most popular shade tree are so well known that I need not record them here.

It should not be planted, however, to any great extent in the large cities of the East unless provision is made for regular and thorough spraying and other precautions taken to hold in check its various insect enemies, among which the leopard moth and the imported leaf-beetle are the most destructive. The Elm is adapted to wide streets, and requires deep, moist soil. Its condition in many of our cities is far from satisfactory, and its use as a street tree is in many localities attended with considerable risk. In towns and villages where the leaf-beetle is as yet unknown the Elm is grown with great success.

Other species of Elm are occasionally planted in our cities, but none are equal to the American Elm in general fitness for street use. The Slippery Elm, for example, cannot be used on account of its

mucilaginous bark, which is relished by the small boy as a substitute for chewing gum, and the English Elm, which does well in Berlin and Hamburg, is so greedily attacked by the Elm leaf-beetle when planted here that it is not only useless for purposes of shade, but forms a centre from which this insect easily spreads to neighbouring trees of our own species. Incidentally, the English Elm is sometimes used as a trap tree in working against the Elm leaf-beetle.

**SILVER MAPLE.**

The Silver Maple is a graceful tree of very rapid growth, and possesses many qualities of an ideal street tree, but it is especially subject to injurious scales and is often killed by borers, while its

In the deep good soil of Bonn the Horse Chestnut is a large and splendid tree. In Paris it is abundantly and successfully used for planting places and borders; but on the streets of most cities it loses its foliage early, because of drought and the effects of its numerous enemies, so that it cannot be recommended for general street planting.

**SUGAR MAPLE.**

The Sugar Maple grows more slowly than the Silver Maple, and its branches are not subject to injury from storms. It is likewise free from most insect pests, is easily transplanted, and capable of enduring our severest winters. Unfortunately, however, this beautiful tree does not thrive in cities. Its requirements as to soil and water are unusually exacting, and its foliage is very sensitive to dust and smoke, especially during periods of drought. I have examined the Sugar Maple in many cities, but have not found one in which it was cultivated with uniform success.

**HONEY LOCUST.**

The Honey Locust is a fine tree with many good points, but too thorny for city use, and often killed by locust borers. The side branches also have a troublesome way of going into the windows of houses, and the pods are somewhat objectionable.

**LINDEN.**

The Linden requires an abundance of deep rich soil, and suffers much from gas, from drought, and from insect attacks. It does fairly well in Washington, but is little planted now because of the extra care it requires as regards soil and water. In Berlin, Frankfurt, Hamburg, and Paris the leaves of most varieties of Linden fall prematurely on account of insect and fungus attacks. In Philadelphia a few years ago all the large Lindens were killed by borers. A further objection to this tree is the litter made by its blossoms and fruit.

W. A. MURRILL, in  
*Bulletin of Cornell University.*  
(To be continued.)



ULMUS PUMILA IN THE ROYAL GARDENS, KEW.

branches are liable to be broken by the wind. There are 25,000 trees of this species in Washington, many of which bear injuries received during windstorms. Many also have been headed back on account of their extensive growth, and are now diseased and unsightly. The Silver Maple endures city life very well, and, if it escapes its various enemies, develops into a fine though not a durable tree, and its cultivation is always attended with risk.

**HORSE CHESTNUT.**

In the spring the Horse Chestnut is an object of great beauty; but in late summer or autumn, when the red spider and mildew have completed their ravages, it seems unfit for the streets of any city. It is exceedingly tenacious of life; few other trees have suffered so much and survived the shock.

**CHRYSANTHEMUMS,  
DECORATIVE INCURVED  
VARIETIES.**

ON the occasion of the annual dinner of the National Chrysanthemum Society Mr. Henry Cannell, when responding to a toast, recalled the beautiful form of the members of the Rundle family of incurved Chrysanthemums, the first of which came into existence more than forty years ago. This family of Chrysanthemums is represented by Mrs. Geo. Rundle (white), the parent plant, which the National Chrysanthemum Society's catalogue says was introduced in 1868, and its two sports, viz., Mr. Geo. Glenny (pale yellow) and Mrs. Dixon (golden yellow). Mr. Cannell said it would afford unbounded interest if a class could be created for these old favourites of forty years ago, which appear to have fallen out of the ranks. The Sheffield Chrysanthemum Society is fully alive to the value of these pretty little incurved blossoms, and they have for some years had a class in their exhibitions in which a pair of each of the three varieties above mentioned are freely displayed. This competition is one of the prettiest of the whole show, the number of those entering the competition varying from time to time. I have

seen as many as fifteen boards of blooms set up in friendly rivalry, and to determine the relative positions of the first eight exhibits (eight prizes are given) is no easy task when the blooms are so close to one another in quality. I have often expressed the hope that some of the southern societies would follow suit. The Sheffield people have to set up their blooms of this trio with stems not less than 7 inches or more than 9 inches in length, and the boards are also covered with Moss. In this way the flowers are shown to advantage. A far prettier way of displaying these small decorative incurved blooms would be to set them up in small or medium-sized vases, arranging six, nine, or a dozen blooms of one kind in each vase. Such an exhibit would prove most attractive, and would also serve the purpose of making comparison with the present-day race of incurved Chrysanthemums, which there is reason to believe has deteriorated.

#### JAPANESE CHRYSANTHEMUM GENERAL HUTTON.

This is one of the Chrysanthemums of Japanese origin, and was a leading variety last year. When it was first exhibited in 1901 there were a few enthusiasts who recognised its great merit, and

drooping gracefully, and curling and incurving at the tips; they also possess substance and keep well. The plant is one of easy culture, and those who have seen the blooms regard it as one of the best sorts of 1904. It is an English-raised seedling, and comes from Mr. C. Penford, who has given us many good flowers in recent years, and Mr. Norman Davis of Framfield is to distribute it in the ensuing spring. The National Chrysanthemum Society granted a first-class certificate for this novelty in December, 1902. D. B. C.

#### CHRYSANTHEMUM WINTER QUEEN.

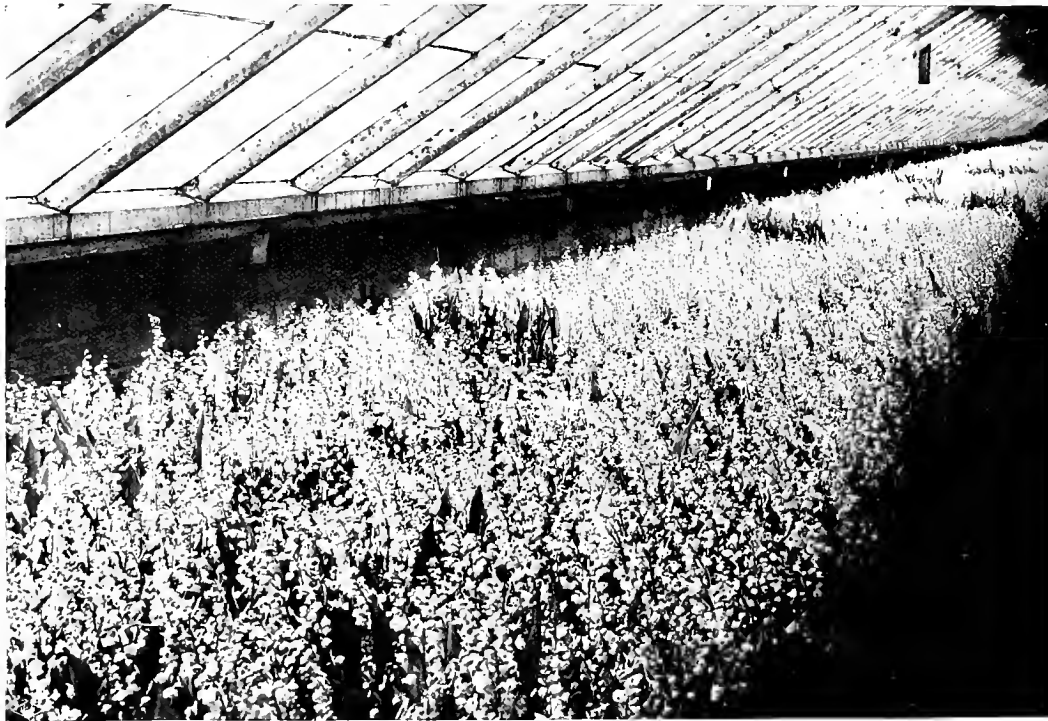
This fine late-flowering Japanese Chrysanthemum was seen to advantage at the Royal Horticultural Society's meeting on the 9th inst. Few sorts, indeed, are so late coming into flower, and this fact, combined with the good quality of the blooms, serves to prove that in the variety under notice we have a distinct acquisition. The flowers are large, having long petals of medium width pleasingly twisted and curled. It is said to be a cross between two well-known white sorts—viz., Mlle. Theresa Panckoucke and Mrs. J. Thompson—and the flowers of the new sort certainly appear to

independent of seasons to a very great extent, and the reason of this is not far to seek; it may be simply explained by the one word "retardation." It has taken some time for horticulturists to find out the great value, so far as they are concerned, of retardation. Long before they took up the matter in earnest men concerned with other industries had recognised its real value, and we became accustomed to the enormous supplies of foreign perishable produce regularly placed on our markets. Now, however, the horticulturist is fully alive to the great possibilities for good that this process of retardation undoubtedly has; in fact, it is not too much to say that when it is more widely practised the supplies of fruit, flowers, and also vegetables will be completely revolutionised. By its aid the farmer and market gardener will be able to store away their fruits in a time of glut and place them on the markets at a more propitious season, thus reaping the benefit of increased prices. At present, in the majority of cases, the fruit has either to be sent to market to realise what it can, or else it is wasted. Sometimes the latter is the better plan, for the prices realised may not pay for the cost of gathering and marketing. This would seem to be one way in which to compete successfully with importations of fruit from abroad, i.e., of course, supposing that fruit culture still continues to increase in this country. At the present time we are at the mercy of exporters from other countries, who are able to send over supplies of fruit to reach this country when they are most needed.

Retardation has made rapid strides in America during recent years, and we have already received importations of soft fruit from the United States, while from the Cape supplies of soft fruit are sent regularly at this season of the year, and they do not appear to suffer appreciably in flavour. However, it is with flowers rather than fruit that we are now concerned, and in this direction—at least, in England—more progress has been made. Where a few years ago it was impossible to obtain such things as Liliums, Lilies, Azaleas, Spiraeas, &c., before the spring, it is now easy to have them all the year round if necessary. It is astonishing how quickly one becomes accustomed to things, and this is illustrated by the fact that now few stop to think that it is remarkable to see these

flowers in the market practically all the year round; yet, but for the introduction and development of retardation, we should have them only in their natural season of blooming and as early as the newly-received bulbs and roots could be forced into flower.

We have not now to wait for importations of the plants above mentioned, for large quantities are annually stored in refrigerating chambers, and the following year are brought out and forced into bloom at whatever season they are required. Strange to say—or, perhaps, if one considers for a moment, it is not so strange, but only natural—these retarded bulbs and roots come into flower more quickly and give equally good, if not better, results than those allowed to develop naturally. Messrs. Thomas Rochford and Sons, Turnford Hall Nurseries, Broxbourne, Herts, have probably the largest and best-equipped refrigerator for horticultural purposes in the United Kingdom,



LILY OF THE VALLEY FROM RETARDED ROOTS IN MESSRS. ROCHFORD'S NURSERY.

subsequent events have proved how true this was. Few of the leading stands in the more important competitions throughout the country have been without one or more blooms of this fine sort, and in many private and trade collections I have seen splendidly developed blooms in large numbers. The plant is a consistent one, and that is saying a great deal nowadays. While talking over the doings of the present season the other day with Mr. Norman Davis, he said that he regarded General Hutton as the finest Chrysanthemum in cultivation. The flowers are very large and full, with long and rather broad florets. The colour is rich yellow, flushed bright red. The plant is strong, and has a splendid habit.

#### JAPANESE CHRYSANTHEMUM BEAUTY OF LEIGH.

This handsome Japanese variety, there is good reason to believe, has come to stay. Bright Buttercup yellow is its colour, and the reverse is a paler shade. The flowers are large, full, refined, and will be regarded as an acquisition to those sorts that have a pleasing finish. The petals are long, and of rather more than medium width,

partake of the characteristics of these two. They are pure white, with the faintest tinge of green in the centre, and large and full. The flower-stem is stiff and fairly strong—in fact, quite strong enough for most decorative uses. D. B. C.

#### LILIES ALL THE YEAR ROUND.

RETARDED LILIUMS AND LILIES OF THE VALLEY IN MESSRS. ROCHFORD'S NURSERY.

**P**ERHAPS the most noteworthy advance in floriculture during recent years—and especially in that branch of it which deals with the culture of flowers for market—is revealed in the fact that seasons have ceased to be the important factor to the horticulturist that they once were. He has, in fact, become

and they are able to store away for future use immense quantities of plants. The principle of retardation is simple. In winter the plants are inactive; they live so gently that the loss in vitality is so slight as to be almost imperceptible. Animation can be suspended for a year or two without difficulty, and it is done by prolonging the conditions of winter—in other words, by cold storage. The boxes of roots are piled up in chambers, entered by thick air-tight doors, and it is strange to go inside. You carry a light, and its gleam is reflected as from a million angles of stalactite. The natural moisture arising from the packages is frozen hard and white on the walls and protrusions. A huge engine is used for the purpose of compressing air till it falls to the temperature required, and then drives it into these rooms. In this way an artificial winter is produced, and the Lily sleeps on heedless of the showers of spring or the summer sun. As far as possible economy is exerted in the use of steam power, and for winter preservation of roots large beds are made up in the open air of a material as closely resembling sand as possible. As long as the weather is hard and cold they remain there as they would in their wild state.

Bringing forward the flowers after they are taken from the refrigerating chamber is quite simple. Firstly, the cases are allowed to stand in a room or shed till they have had time to thaw, which takes about twenty-four hours; then they are planted out in boxes and placed under cover in a hot house, where they speedily begin to grow.



RETARDED LILIUM LONGIFLORUM GROWN FOR MARKET.

Lilies of the Valley from retarded crowns make a good deal of foliage, and this proves very useful to arrange with flowers produced from unretarded roots, for the latter usually give but few leaves. Enormous quantities of roots are stored away in the refrigerator, and the fact that several millions of Lily of the Valley alone are dealt with annually by Messrs. Rochford will give some idea of the vast extent of the business. It will be easily understood that so great an industry

gives employment to some hundreds of people, and, in connexion with this, mention may be made of an admirable institute that was erected for the men by the late Mr. Thomas Rochford, and under their management continues to work splendidly.

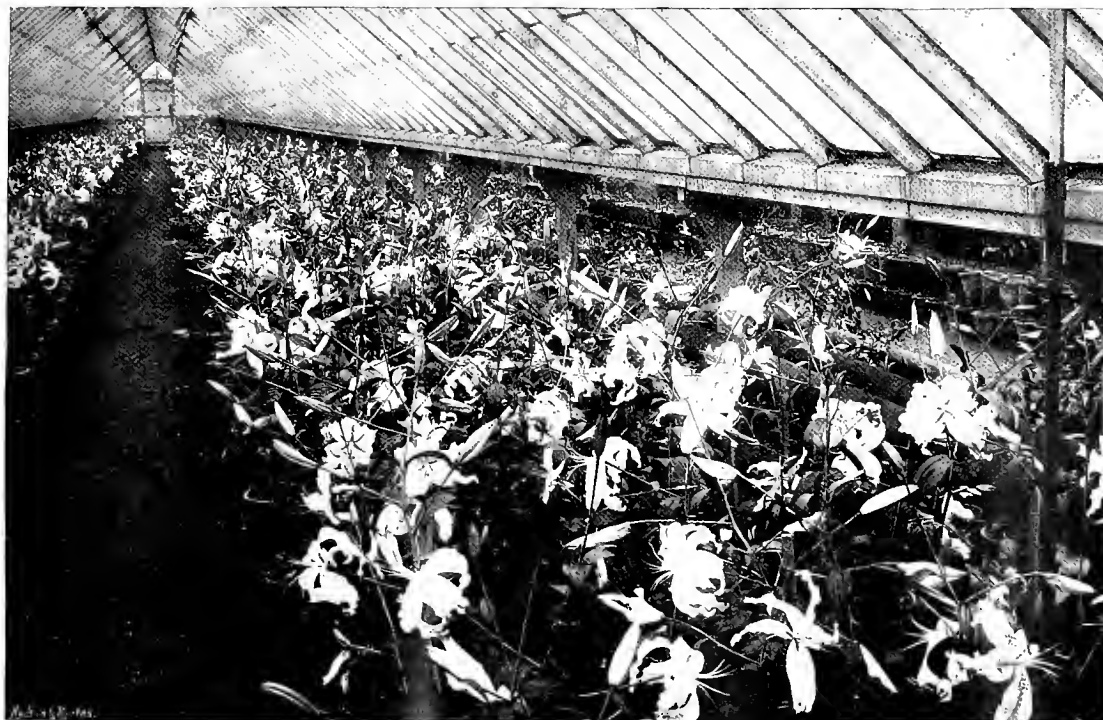
It is very remarkable to recall that all the glass and hot houses, all the enterprising gardeners and busy labourers at Broxbourne have been called into existence by the needs of the last two or three decades.

But, now that a start has been made, no one can tell where it will end. A. P. H.

## ROUND ABOUT A GARDEN.

### SPRING'S PROMISE.

**I** DOUBT if a garden is ever quite so perfectly pleasant as on a sunny morning in early February, when the season is well forward. There are days, of course, in full spring when the brilliance of the flowering bulbs, paraded by battalions or deployed in bewildering échelon down a vista of mingling hues, makes a spectacle of blazing splendour, which harmonises well with the full band of the nesting birds and the quick-throbbing joy of life in all the world of Nature. This makes even the old man glad that he has lived to see another spring. There is immeasurable comfort, too, in the glory of a garden in high summer, when the air drowns to the hum of bees and lulls us with the opiate of its myriad perfumes. There is joy again—that tenderest joy which is mixed with sadness



A HOUSE OF RETARDED LILIUM SPECIOSUM IN MESSRS. THOMAS ROCHFORD'S NURSERY.

—in the lingering farewell of autumn to the summer's days of honeyed sloth, when the Dahlias outbloom the Roses, and the Chrysanthemums come bravely forward to cover Nature's retreat with a defiant array of mingled colours.

#### THE CRISIS OF PLEASURE.

But the ecstasy of pleasure is always reached when anticipation is just going to be realised. That thrilling moment when the curtain slowly rises for the promised pantomime is the finest experience of all childhood's Christmas holidays; and so, in the annual drama of a garden, that which we most enjoy is the beginning of the fulfilment of our hopes for the coming year of flowers. Only the clustered purity of the Snowdrops may have come as yet to star the golden carpet which the Winter Aconite had spread beneath the trees for early spring to tread upon, and only the Primroses in the shrubberies bloom as yet with any full assurance that she is already passing that way. But there is enough suggestion in these gracious hints—confirmed by the swelling buds on bush and tree, and by the close-set array of blades of green that mark where the great army of the bulbs is marching to spring's summons—to make one almost hug one's self with glad foreknowledge of joys that are almost here already.

#### ABSENT "STARS."

The music of the birds has not yet the full volume of the triumphal march which heralds the entry of summer after spring, when the air shimmers with bird-notes and the sunlight is gilded as it filters through the haze of tiny winged things upon which the swerving swallows feed. But it is the overture of a familiar and well-loved opera which strikes more gladly on the ear than any of the more splendid later passages; and the earlier welcome of the birds to spring has the greater charm because we know each voice so well. The famous tenor—the nightingale—will come on the stage later and deliver his impassioned solos when all other voices are hushed—when, as we listen to his thrilling outbursts, the sentimental moon seems to melt over a dreamy landscape of dim delight. The cuckoo, whose catchy phrase sums up the whole *motif* of the spring opera of the birds, may not be heard for two months yet. But we can afford to wait.

#### "THE BIRDS ARE SINGING."

Even in later spring, when the nightingale and the cuckoo and all the host of warblers are here, it is not *their* glad chorus of sweet music in the morning which makes us fling the windows wide to hear how beautifully "the birds are singing." Then it will still be, as it is now, the faultless improvisation of the song-thrush, the fluty refrain of the blackbird in his rich contralto, and the wild, bold music of the "stormcock" missel-thrush, with the wheedling pipe of hedge-sparrow and the confident carol of robin, which will fill the shrubberies and coppice with a throbbing harmony that seems all the sweeter because the singers are our very own—the same constant birds which have dared the winter with us, and with us rejoice that spring is almost here.

E. K. R.

## BOOKS.

**Lawns.\***—A smooth and verdant lawn is a constant source of pleasure, and enhances the charm of every flower and shrub in the garden. Messrs. Sutton and Sons are responsible for this statement,

\* "Lawns." By Messrs. Sutton and Sons, Reading. Published by Simpkin, Marshall, Hamilton, Kent, and Co. Price 1s.

and few will be inclined to disagree. This being the case, we see at once the importance of keeping the lawn at its best, which, by the help of the information given in "Lawos," will be rendered fairly easy. Garden lawns, tennis lawns, bowling greens, croquet grounds, &c., are dealt with in this book, and full details are given for their making and subsequent proper upkeep. While the lawn is a most important part of the garden, a great deal of ignorance prevails as to the making of a lawn and keeping it in good condition, even among otherwise experienced gardeners. Messrs. Sutton's publications are full of practical information plainly put, and this book on the lawn and its management is no exception.

## THE KITCHEN GARDEN.

### PEAS FROM MAY TILL OCTOBER.

(Continued from page 122.)

#### SECOND DIVISION.

**H**ERE will be found the cream of the whole family, as many can grow these who have not room for later varieties, and, of course, they are not affected by cold, but later on drought is troublesome. More culture is necessary, that is, in poor soils. The plant must get ample food, deep cultivation, and room to develop. I note the last-named point with more force than usual, for this reason: that when the seeds are sown so that they touch each other in the row it is impossible for the plant to thrive, and they collapse when there is heat or drought at the later period of their growth. I am aware it is not always possible to sow thinly at times; the seed does not germinate freely, and one cannot afford gaps in the row. My advice is to thin the seedlings when they are well above the soil. I have touched upon the importance of deep cultivation, that is, double digging and trenching, doing this work in the winter months, and in heavy or poor land it well repays the cultivator to get out trenches, say, 12 feet to 15 feet deep. Place a good body of manure in the trench, and replace some of the top soil to sow the seed on, and for covering the latter. This plan more concerns the latter part of the main crop, as that is the time the plants need more sustenance. It is an excellent plan for the latest varieties. When dealing with the last named the second and main crop should have an open border fully exposed to the sun, and ample room between the rows. Personally, I favour the medium growers, 4 feet or even less, in this section. There are some grand varieties, but it is far better to grow a dwarf vegetable crop between the main crop and late Peas than crowd the rows together. At least 6 feet should be given the medium growers. There is no loss if the ground is cropped between with such things as come off quickly. The following list can be relied upon for quality and cropping for June and later supplies: Carter's Daisy and Danby Stratagem are splendid; the former has received numerous certificates, and I have never seen it fail. Stratagem also is a variety of excellent flavour; also Model Telephone is good. Prize-winner is a very fine pod, a variety given an award of merit in 1896 and a first-class certificate in 1901. This shows that time is a true test with new vegetables. Others are Dwarf Defiance, Duke of Albany, Eureka, Prolific Marrow, Best of All, and the newer Royal Jubilee and Matchless Marrowfat, and, though last in my list, by no means least, should be such fine varieties as Veitch's Main Crop, Autocrat, and the older Perfection, and Laxton's Gradus, and Thos. Laxton, and the new Edwin Beckett, a superior form of Duke of Albany. It will doubtless become a great favourite.

#### THIRD DIVISION.

In this division, which should give a supply from August till cut down by frost, there are many varieties, and, of course, any of the midseason ones sown later are reliable. Should any variety be liked more than others, by sowing every three weeks through May till the end of August there will be a succession; but there must be good culture to battle against heat, drought, and insect

pests. Mildew, also, is troublesome. Some varieties are much less affected than others, and a good deal depends upon the condition of the roots, if starved, crowded, or grown in unsuitable places. In the north it is an easy matter to have good Peas well into November in mild seasons, and in the south I have sown the dwarf first earlies in August for a latest supply on a cool border. In this section comes the well-known Ne Plus Ultra type, one of the best Peas when a true stock can be secured, and fortunately this has been largely used in crossing, so that there are some excellent selections. Gold-finder, Autocrat, Cheltenham—all belong to this family. To this list may be added Sharpe's Queen, a grand Pea; Late Queen, Latest of All, and Windsor Castle. Carter's Latest Marrowfat, known as the Michaelmas Pea, is a splendid dwarf 2-feet to 3-feet variety, and one that resists mildew in the worst seasons. It is only right to add that Peas for stock purposes need the greatest care in sowing, hence the necessity of new blood occasionally, as the older varieties weaken or become mixed.

G. WYTHES.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### CIDER MAKING IN DEVON.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—The subject of cider making in Devon, poetically referred to by Dorothy Hamilton Dean in *THE GARDEN* for the 30th ult., is a question that has so much interest and practical importance at the present time that a few more words in relation to its manufacture may not be out of place.

The beauties of a Devonshire Apple orchard in autumn when the trees are laden with fruit are well described by your correspondent. Unfortunately, however, the crops in this county have for the past two years been small, the last season, indeed, being disastrously so. In the early spring, however, when the numerous orchards are ablaze with the delicate pink flowers, and expectations are rife for an abundant harvest of the staple fruit crop of this county, the sight is even more beautiful, coming as it does after the dreary season of winter. But setting aside the beauties of an Apple orchard, whether in flower or in fruit, one is particularly struck with the condition of the trees in 99 acres out of every 100, showing as they do years upon years of absolute neglect, for most of the orchards have the appearance of having received no attention since they were first planted. The trunks and branches are covered for the most part with a thick growth of Lichen or Ivy, and pruning seems to have been entirely neglected. New varieties, whether for cider making or for domestic purposes, have not been introduced. To remedy this state of things and to make Apple culture, as well as fruit culture in general, a more profitable industry has for some time past occupied the attention of many who have long seen what would happen were these matters not remedied. The Devon County Council also has for some time past instituted lectures and demonstrations on fruit culture, and these are now included in the scheme for higher education under the new Act.

One of the propositions made a short time back with the view of extending the cider industry was that farmers having any extent of Apple orchards attached to their holdings should be instructed in the best methods of cultivation of the fruit and the manufacture of cider. The manufacture of this once-famous drink, however, like everything else, has passed from the primitive conditions which formerly prevailed, and so well described by your correspondent, into one where, in the most modern factories, improved machinery has been introduced and where careful attention is given to every detail, especially in the matter of absolute cleanliness as well as in the selection of special varieties of fruit suitable only for cider making, two of the best varieties being the Sweet Alfred and the Fair

Maid of Devon. In saying this I do not mean that good cider is not made on many well-conducted, old-established farms, but when one sees in abundant Apple seasons heaps of the fruit piled up on the ground in different parts of the orchard till the early winter and then being removed like so much manure in ordinary farm carts to the cider mill, a feeling prevails that cider making at the present time has degenerated now that the beverage is no longer the wholesome, cleanly drink that it was in former days. Indeed, it is now often said that farmers think anything in the shape of an Apple, no matter what variety or in what condition, is good enough to make cider. Then after the pulping process the straw used to place between the layers of pulp was not always free from mildew, so that a musty flavour was conveyed to the liquor.

In modern cider factories the case is very different. If wet weather prevails at the time the Apples are delivered at the works from the orchards, the fruits are cleansed by steam or water jets before being placed in the mill, and when reduced to pulp are submitted to heavy pressure in a screw-press. No straw is used, but layers of pulp are laid alternately with cloths made of Manila Hemp, and upon these are placed frames consisting of strong wooden strips, forming a lattice by crossing each other at right angles. The screw being brought into action soon causes the juice to exude, and it is conveyed into tanks, the sides and bottom of which are glazed so as to ensure perfect cleanliness. As in the primitive system described by your correspondent, no water is added or any other ingredient, the differences in quality and flavour being entirely due to the flavour of the special varieties of Apple used, or by the selection of two or more varieties for blending, for it is said that the cider maker of the present day must study the nature of these varieties and make himself acquainted with the effect the juice of one sort will have when mixed with that of another so that they may be properly blended. From the glazed tanks the liquor is pumped into casks and deposited in well-ventilated cellars, where natural fermentation gradually proceeds under very careful attention as to temperature or chemical changes that may arise, which would spoil the whole of the brewing. Another great object of this operation is to separate impurities from the juice, which arise first to the top in the form of scum and then fall to the bottom, leaving the fluid perfectly clear and bright. When the fermentation is complete the clear cider is drawn off and bottled. That perfection in the manufacture and cleanliness in all the operations connected with cider making at the large factories is aimed at is evident from what I have seen, and it is well that this should be known if cider making is to be resuscitated or developed as an English industry. Ciders of good qualities are to be had, but the prices are, of course, much higher than those of the inferior qualities; but if a real English wine—which is a term now being applied to these best qualities—is required a fair price must be paid for it.

JOHN R. JACKSON.

Claremont, Lympstone, Devon.

## THE POMEGRANATE AS A TUB PLANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was rather surprised that among the innumerable subjects recommended for tub culture in THE GARDEN, pages 98 and 99, no mention is made of the Pomegranate, which used to be at one time—and probably still is—so well done by Mr. Hudson at Gunnersbury, where tub gardening has long formed a prominent feature. In conversation with Mr. Hudson, who has, I believe, expressed much the same views in one of the horticultural journals, he at one time related a difficulty in flowering them satisfactorily when the plants grown as standards were pruned into shape, but by leaving them alone much better results were obtained. With this treatment the red flowered more freely than the white, but this, I

think, is the general experience under whatever conditions they may be grown. The single-flowered forms, too, are much freer than the double, and are, consequently, better adapted for culture in tubs. The winter treatment accorded to the Myrtles, Lemon Verhena, and similar subjects will just suit the Pomegranate—that is to say, simple protection from frost. Being deciduous they will not need so much water as when in a growing state, but at no time should they be allowed to get too dry. Once established they may be grown in the same tub for years without repotting, providing care is taken in potting them at first. When well rooted an occasional dose of weak liquid manure mixed with soot water is beneficial. T.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### EUCHARIS AMAZONICA.

**A**BOUT this time the plants generally commence growing. To encourage them give a temperature of 65° to 70°, and syringe abundantly. If the plants are doing well do not disturb them; to encourage a free, good growth give them liquid manure—the liquid made from sheep manure is the best—and occasionally give them a dose of weak soot water to impart a good colour to the foliage. The less frequently water is given to their roots the more likely will the plants be to continue in good health.

#### ALLAMANDA HENDERSONII.

Plants that are expected to be in flower by the end of May or early June will have previously been pruned, and probably will have commenced growing. Others required to flower later should now have the previous year's shoots cut back to within one, or not more than two, eyes of the old wood. The earliest pruned will be ready should they require to be repotted, and the compost for such purpose should consist of lumpy fibrous loam, peat or leaf-soil, dried cow manure and sand being added only in very small proportions. Drain the pots well, and over the crocks put a few half-inch bones, and if at the time of repotting the compost be moderately moist water will not be required for some time. Syringe them two or three times daily, and a temperature of 60° to 65° should be afforded.

#### TUBEROUS BEGONIAS.

The bulbs of these that are still dormant will require looking over, and should now be shaken out of the soil in which they grew last year.

It is a good plan, and will economise space, to place the bulbs in shallow boxes among cocoa-fibre or sifted leaf-soil first to start them rooting. Heat is unnecessary at any time, as stronger growths are produced and the plants afterwards grow and flower with greater freedom in a house that is cool and airy. Moisture is at all times essential to their well doing.

It is not too late to raise young plants from seeds, which sow at once, and by the end of August and during September next they should flower abundantly. The bulbs depreciate with age, and as young ones produce finer and better flowers it is advisable annually to raise a few from seeds in order to keep the stock healthy and vigorous.

#### CYCLAMENS.

The young seedling plants will by this time require transferring to 3-inch and 4-inch pots, and these should be clean and well drained. The best position for them afterwards will be near the glass. Give a temperature of 50° at night, with a rise of 5° during the day. Mix coarse sand and bricks broken fine along with equal parts fibrous loam and peat for potting soil.

To keep the leaf-stalks short on all occasions that are favourable admit air, and check the origin of green fly and thrips by fumigating occasionally with XL Vaporiser. It is advisable annually to raise a few plants from seed in order to keep the stock healthy and vigorous. J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

## FLOWER GARDEN.

### ROSES.

As a rule, climbing Roses will require but little pruning beyond cutting out all dead branches and a few of the weaker growths. Some of the strong growers, such as Gloire de Dijon, Climbing Devoniensis, &c., that have grown rapidly and left the bottom bare, may have a few of the long shoots bent downwards. These will break freely and cover the bare stems.

The pruning of standards and dwarfs in beds and borders had better be delayed until next month. Most growers have their favourite time for this operation. A very successful grower in the neighbourhood of Exeter used to aver that to prune his Roses before the 7th or later than the 11th of March was to court failure. And undoubtedly the period named was suitable for that locality, but would be too early for less favoured parts of the country. Unless exhibition blooms are required the severe cutting back sometimes practised is to be deprecated, except with some very weakly growers. If some of the long shoots of the dwarfs are shortened back to about 1 foot or 18 inches in length and carefully pegged down to the ground, they will be very effective. The ground was in such a sodden state last autumn—here we had 10·77 inches of rain during October—that any planting in November was out of the question. If it is intended to make new beds this should be done now, so that the ground will have time to settle before planting. Most garden soils will grow Roses, and in Rose planting the chief things to bear in mind are—that the Rose loves a sunny and sheltered aspect; strong growers usually thrive best in strong soils; weaker and more delicate Roses prefer a lighter rooting medium; and that all Roses revel in a rich soil. Any damaged roots should be cleanly severed with an upward cut. The planting should be firmly done and a mulch of some non-manurial material applied. Where necessary a neat stake should be given, and as soon as possible fix a permanent label.

### CAMELLIAS.

The flower buds of the earliest varieties will soon have a touch of colour. I have found that a moderate sprinkling of guano or kainit at this stage greatly improves the flowers. A periodical top-dressing of roughly-chopped fibrous loam mixed with a little peat and leaf-mould will be beneficial. These beautiful shrubs are much hardier than is generally supposed. The chief thing to guard against are rough winds, which bruise the flowers. Where Rhododendrons grow there, as far as soil is concerned, will the Camellia also flourish. A west or south-west aspect is the best, and if the site is a well-drained slope so much the better. Plant about the end of June. For the first winter it will be necessary to give a little protection, such as a good mulching and some twisted hay bands around the main stems, and if any severe frosts are anticipated a mat laid over the plant at night. For out-of-door work the whites should be used sparingly; singles and semi-doubles will give most satisfaction. Probably *Camellia reticulata*, *C. Donckelaeri*, and *C. Contessa Lavinia Maggi* are the three best.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

## FRUIT GARDEN.

### MELONS.

THE earliest plants are now making better progress, and as the days lengthen more sun may be expected. They should be encouraged by placing horse manure and leaves round the pots or beds. Keep a steady bottom-heat of about 80°, a night temperature of 70°, with a further rise of 15° on bright days, after the house is closed 5° lower than above in severe weather. Give a little air early in the day on bright days whenever possible, always avoiding draughts. Attend to the setting of the fruit, and endeavour to get as even a "set" as possible. Pinch the shoots at the second leaf above the fruit, and remove all surplus laterals. Melon seeds being plentiful, have young plants in readiness by sowing at intervals of three weeks in 3-inch pots, always planting out from these pots.

Take care never to plant very deeply. Make up new beds of horse litter and leaves, and place turves grass side downwards upon them to form a ridge, about 2 feet wide at base and 12 inches deep, using fairly heavy loam, a sprinkling of wood ashes, and some approved manure. When the soil is well warmed through, plant out 1½ feet or 2 feet apart. Hero of Lockinge and Blenheim Orange are still two of the most reliable varieties.

CUCUMBERS.

These plants should now be given more moisture and frequent light top-dressings as the roots appear on the surface; also a sprinkling of Thompson's Vine Manure. Warm, weak liquid manure should be supplied freely at other waterings. Seeds sown as advised last month will now be making rapid progress, and should be pinched more freely as growth increases. Avoid overcrowding of the growths, and never allow more fruit to develop than the plants can mature. Seeds should be sown and the material (half stable litter and leaves) got in readiness for frames. This should be turned several times before making up the beds. Plants whose fruits are swelling should have a temperature of 65° or 68° at night, with a further rise of 10° on bright days. Keep a sharp look out for fly, and fumigate at first appearance. Continue to introduce later plants as required, and use the syringe freely among them.

FRUIT ROOM.

The mild, wet winter has not been favourable to the keeping of Grapes. The bunches should be frequently examined and decayed berries removed. Refill the bottles when necessary with soft water. Keep the temperature about 45°, and use as little fire-heat as possible; admit a little air on bright days.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

PEAS.

Owing to successive wet no opportunity has yet been afforded to do anything in the kitchen garden in the way of cropping. On the first favourable opportunity the earliest Peas should be sown on a southern border. It is inadvisable to give a selection of sorts, as most gardeners know exactly what suits their particular district. I prefer to start with a good sowing of dwarf sorts, such as American Wonder, Chelsea Gem, and Wm. Hurst. Choose a dry day. A very shallow drill should be drawn, and after sowing a good covering should be given, raising the drills above the surrounding soil. This will preserve them from damage by wet. Should birds be at all troublesome threads stretched zigzag along the rows will be sufficient protection. Should the garden harbour mice, the Peas should be dipped in red lead that has been slightly moistened. In addition to these a sowing of taller varieties should also be made now. On a plot that has been specially prepared for Peas, favourite sorts for this work here are Dicksons' First and Best, Earliest of All, and Gradus; 4 feet between the rows will be sufficient for these sorts. Peas to come into use before those which it is advised to be sown are ready may be had by making a sowing at once under glass. For planting out choose some long narrow boxes, fill them with good soil that has been put through a ½-inch sieve, sow thickly and place in a cool Peach house. Plant out in rows when the Peas are 4 inches high, giving them ample protection from cold winds.

SEA KALE.

A new plantation of Sea Kale should be made at this period. Where a large quantity has been taken up for forcing a corresponding number should be annually replanted. Where roots are being prepared for forcing the largest side roots should be kept for replanting, and cut into lengths of 6 inches or 8 inches. A piece of ground that has been well trenched and manured and not too exposed to the sun will suit this vegetable best. The sets should be planted with the top just below the surface of the ground. When growth has started the shoots may be thinned out to encourage the formation of large crowns. Where the practice of covering and forcing this vegetable in the open is carried out,

the sets should be planted in clumps from six to nine sets in a clump. These may be conveniently covered with an ordinary 10-inch flower-pot. Some of the newer varieties of this vegetable are superior to the old purple sort, as they are pure white and very tender. Continue to keep up supplies in the forcing house. This vegetable at this season starts readily into growth, and should be inspected daily, as it soon becomes useless.

GENERAL REMARKS.

Ground that has been prepared for Onions should be forked up on the first dry day, and every effort made to get it into condition for sowing early next month.

THOMAS HAY.

Hopetoun House Gardens, Queensferry, N.B.

THE ROCK GARDEN.

ROCK GARDEN-MAKING.

XVI.—STABILITY.

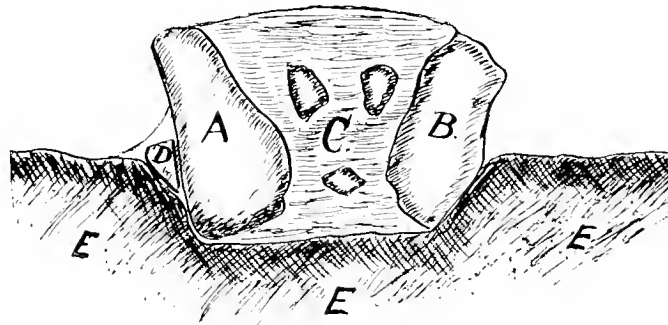
MY previous articles on rock gardening dealt exclusively with the arrangement of rocks for general effect. The most important consideration of all must be the construction of rocks with regard to the requirements of the plants that are to be grown on them. But before entering fully into this matter I will briefly consider yet another important factor, namely, stability. Soil and stones newly filled up have a tendency to settle, especially during wet weather, and if due allowance is not made for this the

If a stone of that kind is not bearing tightly on the solid ground, as, for instance, in the case of stone A (illustration No. 1), this may be remedied by driving a wedge-shaped stone (D) firmly between the stone and the soil.

As in rock building, it is desirable to introduce as much change as possible into the work; it may sometimes be desirable to arrange large stones in an overhanging position. In order to be always sure that this overhanging is not carried to a dangerous extent, it will be well to remember a simple rule of gravity as applied to the law of parallel forces, *i.e.*, an overhanging body is perfectly safe as long as an imaginary perpendicular line through the centre of gravity falls within the base on which that body rests. Diagram No. 2 illustrates this. C is supposed to be the centre of gravity of the overhanging stone, E D is the imaginary perpendicular line, and A B the base. The stone represented in the diagram, therefore, would be perfectly secure. But we have to reckon not only with the overhanging stone itself, but also with the pressure of soil behind it. The angle of rest for filled-up soil is, roughly speaking, about 40°. This angle is represented in the diagram by the line H Q. The stone would, therefore, have to bear the weight also of the soil represented by the triangular piece H G I, and to make sure of absolute stability it would be well in this case to insert an extra support (the wedge-shaped stone indicated by a dotted line) at B.

Sometimes it may be desirable to construct an overhanging rock on a larger scale. As a rule such rocks do not admit of being planted with choice things. They are very handy, however, to form a

kind of protecting roof over plants which require little moisture, such as Opuntias, &c. In building such rocks the above-mentioned law of gravity would apply not only to each stone individually, but also to the structure as a whole. Illustration No. 4 will explain my meaning. The long overhanging stone D does not fit well on the foundation stone A. To give it a better bearing the small stones B and C have therefore been inserted and made the stone D perfectly secure. But in order to make the stone D stand also the additional strain of the overhanging stones F and G more



(1.) Section showing the fixing of stones by letting them down into firm ground.

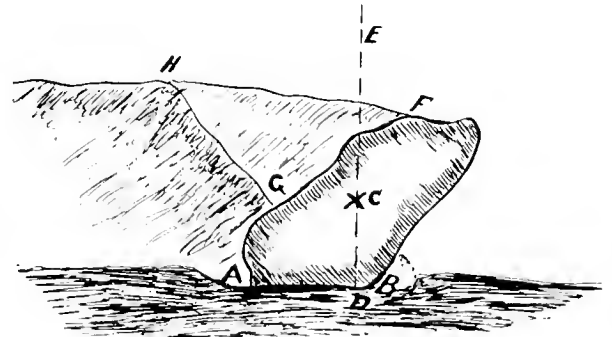
stones may give way and the plants be displaced or ruined.

It is usual when making a rock garden to begin with the soil, that is to say, heaps of soil are thrown up on which the stones are fixed afterwards. Now I consider that this method is entirely wrong. A newly-constructed rock garden, like a newly-built house, can never be safe without a good foundation. My maxim, therefore, is to begin invariably with the stone, and not with the soil, which latter should be filled in behind the stones as the work proceeds. If the foundation stones give way the whole structure is endangered. The foundation stones, therefore, must be so placed that they cannot be shifted from their position by subsequent pressure of soil settling behind them.

One of the simplest methods of effecting this is illustrated by diagram No. 1 (see illustration), which shows, in section, the formation of a small rocky bed. In this case the stones A and B, which would have to bear the pressure of filled-up soil and stones (represented by C) have been sunk into the solid ground (E), which has been excavated for the purpose. Stones thus placed will bear any amount of pressure produced by soil, &c., settling behind them, and this will only make them still firmer.

weight at its lower end is required, and this is represented in my sketch by the stone E and the soil resting above it.

Soil filled in behind the stones must be firmly rammed to prevent settling to any dangerous extent, that it must also be suitable to the particular kind of plants which are to be grown goes without saying. When writing of the arrangement for effect I mentioned that rocks, to look picturesque, should not be too continuous, but be broken here and there by intervening banks of



(2.) Diagram of stone in an overhanging position. N.B. This stone, although overhanging, would be perfectly safe, because a perpendicular line through its centre of gravity falls well within the base A B.

grass, planting, &c. Sometimes it is necessary to have such grassy banks rather steep. If this steepness does not exceed an angle of, say, 40° to 45° I find it is best to set up the front of such a



(3.) The best shape for thick piece of turf for setting up steep grassy banks.

bank with pieces of turf 18 inches or 15 inches long, 1 foot wide, and about 4 inches thick. Such pieces of turf, if cut not square but diagonally, dovetail firmly into each other, and if the first layer of such turves is sunk a little into the ground its stability will be assured. For very steep slopes, however, this method would not be practicable. In such a case it would be best to set up the front of the bank with ordinary pieces of turf cut the usual size, namely, 3 feet long, 1 foot wide, and about 1½ inches to 2 inches thick. By placing such pieces flat, one on the other, and then ramming the soil behind as the front is built up, a much stronger bank will be the result. The drawback is that the green sides of the turf would not show like those of thick turf, but would be buried. As, however, the roots of the grass would be still there, the front of such a bank—though bare at first—becomes covered with green sward very quickly. All kinds of plants may, of course, be put in as the work proceeds, and their roots will give additional stability to such a bank by holding the soil firmly together.

Elmside, Exeter.

F. W. MEYER.

(To be continued.)

## AN HOUR WITH THE HOLLYHOCK.

(Continued from page 124.)

SHOULD the cultivator have the leisure, or be fond of employing himself among his flowers, he will find an ample field for amusement in the crossing of the various kinds with the view of obtaining novelties and improvements. If this end be contemplated we should advise a separate plot to be set apart, however small, that he may carry on his plans unmolested. Other advantages likewise accrue from this arrangement. First, no shading is necessary when growing for seed; it would indeed be injurious. Then the finest varieties may be set together beyond the fertilising influence of the inferior ones. Again, the best situation for obtaining seeds is a warm sunny border, with a rather dry soil; but such is not the most suitable for the production of large handsome flowers. Perhaps we could not raise the question: "What constitutes a good Hollyhock?" more opportunely than at the present juncture; for without a distinct conception on this point much labour in hybridising will, to say the least of it, be but ill-directed.

Before discussing this point, I would offer, for the consideration of my readers, the "Suggestions for the Guidance of Exhibitors," printed by the committee of the Grand Hollyhock Show held at the Surrey Zoological Gardens in August last:

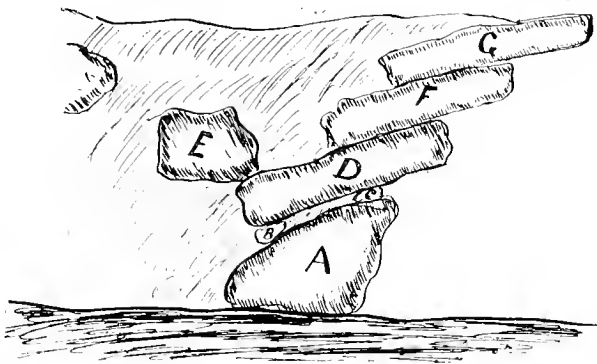
"Quality, rather than the size of individual flowers or length of spike, should be the first point of consideration.

"The petals of the flowers should be of a thick substance, the edges smooth and even.

"The florets forming the centre or ball should be compact, closely set, rising in the middle to the form of a half globe, with a stiff guard petal extending about half an inch around the base, or in proportion to the size of the centre ball, so that the different parts of the flower may have a uniform appearance.

"The arrangement of the flowers on the spike should be regular, not crowded together in a confused mass, nor loosely hanging with open spaces between them, but so disposed that the shape of each may be distinctly seen.

"When the spike is fully blown the uppermost flower should crown or cover the top.



(4.) Diagram explaining the construction of overhanging rocks.

"A few small green leaves projecting between the flowers increases the beauty of the spike.

"As a last point, it is highly important that the colours be bright, strong, and distinct."

Here we have the collective opinion of the principal growers of the Hollyhock in England, both florists and amateurs. It will be observed, the first aim is to enforce the doctrine of quality before quantity; and with this effort we believe all true lovers of the beautiful will sympathise, for if an object is to be pronounced beautiful or perfect in proportion to its size then should we prefer the unwieldy bulk of the hippopotamus to the delicate, graceful, or symmetrical organism of the Italian greyhound. Without objecting to any of the opinions given above we may perhaps be allowed to qualify and more clearly define certain of them. The ball forming the centre of the flower should in no case exceed half a globe, and the smallest flower admissible should be 5 inches in diameter. Open spaces in the flowers termed pockets are highly objectionable. We would not limit the length of the spike, and the longer the foot-stalks, provided they be strong and hold the flower well up to view, the better. In striped, edged, mottled, and shaded flowers, the ground and overlaying colour should be distinct, well defined, and free from all confusion. The guard petals should be flat, of great substance, neither ridged, serrated, nor curled.

We think it will be tolerably evident to all who have a just view of the flower under discussion that the distance of the ideal standard from the existing forms is sufficiently great to offer encouragement to the seedling raiser, and at the same time not so far removed as to be unattainable. The florist requires a stimulus beyond that presented by ordinary forms. And why should not he be permitted to body forth an ideal beauty as well as the

sculptor, the painter, or the poet? And who shall say his object shall not be realised, drawn from the inexhaustible stores of Nature? None, I ween. The florist is no mere dreamer. He may be an ardent thinker; but he is an ardent worker, too, and he has a right to expect a rare though not unattainable success. Yes; reasoning from analogy, he has a right to expect this as the result of labour. Look at what has been accomplished in other walks of floriculture. Compare with the other species the Roses, the Dahlias, the Pansies, which decorate our parterres, and behold there the result of patient perseverance and unremitting skill. If the improvements in these flowers have been less rapid during the last few years, we must remember that they have long lain under the hand of the improver, and, as a consequence, much of the work is done. W. PAUL, F.L.S.

(To be continued.)

## ORCHIDS.

MESSRS. CHARLESWORTH'S NURSERIES, HEATON, BRADFORD, YORKS.

AMONG the numerous changes and developments in horticulture during recent years, none is more pronounced than the number of specialists brought forth. The only drawback is that many owners of gardens, from which a general supply of produce is required, are apt to judge their gardeners by the results of the specialists' work which they see at exhibitions and other places. These thoughts came into my mind very forcibly after a recent walk through the Orchid houses at the above nurseries. My visit was a hurried one, so I shall not attempt a detailed description. The first house I went into was a large span-rooted one, filled from end to end with the finest lot of Odontoglossums I have seen. They were in rude health, as shown by the stiff, long, deep green foliage springing out of the fat, glossy pseudo-bulbs. As it was not the flowering season for this section, few of the spikes had flowers, though it was easy to see that in a few months' time there would be a great display. I counted from thirty to forty open flowers on two or three spikes. I was told there were no secrets in connexion with their culture beyond the facts of giving them a suitable temperature, both as to heat and moisture, and a healthy rooting medium. The former ranges from 50° at night to 55° to 60° in the day. During that period of the year the houses are controlled by artificial heat. The rooting medium is made up of a mixture of one part good peat and the same of partly decayed Oak leaves, the other being of good sphagnum moss, with a base of clean crocks or potsherds as drainage. It is found that they grow best when at a distance of from 2 feet to 3 feet from the roof glass. Under the central stages are numerous cement tanks for catching the rain-water from the roofs, and in all the houses where these are not present the floors are formed of the natural soil covered with clean ashes, which, being kept constantly moist, give off a humidity which the plants evidently enjoy. House after house is full of choice Cypripediums, from the tiny plantlet just emerging into a separate life to good-sized plants of all the newer and choice species and varieties. Amongst others in flower were *C. lathamianum*, *C. albertianum*, and *C. aureum virginalis*.

*C. albertianum* is a very useful decorative sort for producing cut flowers in quantity, having good long spikes in abundance. I was told that some of the up-to-date market florists had already secured stocks of it. In a lean-to house facing west were *Phalenopsis* in variety, but mostly *P. schilleriana*. Their beautifully marbled, clean foliage and healthy young roots prove that they are at least happy in their surroundings. The back wall is covered with a dense mass of *Ficus minima*, and underneath the

open lattice stages on which the pots or pans are standing are other stages covered with a dense mass of *Fittonias* in variety. As is well known, to have these accessories in good health it is necessary to keep them well supplied with water. It appears that since the Philippine Islands passed from the control of the Spanish Government to the Americans there has been more difficulty in getting at the natural home of *Phalenopsis schilleriana*. Under any circumstances, the risk of importing them is somewhat difficult and expensive. There would be nearly 1,000 plants in this batch.

Another large house is full of *Dendrobiums*, mostly of the noble section. Few were in flower, but the well-developed pseudo-bulbs gave promise of a fine display later on. Several others are full of imported *Cattleyas* in all the choicer species and varieties. Amongst them are fine specimen plants. To me the most interesting of all were the several houses full of seedling *Cattleyas*, *Laelio-Cattleyas*, *Sopbro-Laelias*, &c. There are thousands of them in all stages of growth. I did not see an unhealthy plant in the lot.

While claiming to have no special knowledge of Orchids, I have always had a great fondness for *Cattleyas* and the stronger-growing *Laelias*. I think I can see a greater future for them than before. One drawback to their extended culture is the fact that even under good cultural conditions the death-rate of imported plants is a very heavy one. I once heard a gentleman interested in their culture say that to keep your house or houses full of good *Cattleyas* you required to look upon them almost as one does Dutch bulbs, the only difference being to import them triennially instead of annually. This was an extreme opinion, perhaps, but there is much truth in it. With seedlings this is all changed. Looking at the houses of seedlings with all their leaves on one feels certain that, given fairly good conditions of culture, there would be no higher death-rate in the future than amongst, say, exotic Ferns similarly produced. I was told also that, given the demand, there was nothing to prevent their being produced at what may be termed popular prices. Of course, the very choice species and varieties will always command full value. The weedy ones can, as with other things, be thrown away. In THE GARDEN I have noticed descriptions of some of the flowers as exhibited at the Drill Hall, and perhaps before these notes are in print may do so with others. I know of nothing in connexion with horticulture so intensely interesting as watching the development of the flowers, though, of course, there are and will be many disappointments.

Grimston, Tadcaster.

H. J. C.

### DENDROBIUM SPLENDIDISSIMUM GRANDIFLORUM.

OUR illustration shows a form of the above *Dendrobium*, known as the Woodhatch variety. It is one of the best forms of *D. s. grandiflorum* yet raised. It was shown by Mr. Salter, gardener to Mrs. Haywood, Woodhatch Lodge, Reigate, before the Orchid committee of the Royal Horticultural Society on March 8, 1898, when it received an award of merit. Mr. Salter raised this *Dendrobium*, and it may be said to be one of his best seedlings.

### WORK FOR THE WEEK.

#### GENERAL REMARKS.

ATTENTION should be given to the shading of the various Orchid houses to see that they are in good repair. To those beginning the culture of Orchids, and now contemplating a suitable system of shading, I advise that all blinds should be kept well clear of the glass. We find that lath blinds make a good shading, and they have the double advantage over the cotton blinds, in not being adversely affected by the weather in winter to the same extent. When introducing shading this should be taken into account, so that during severe weather in winter they may be used in preference to excessive fire-heat.

#### STAGING.

Proper staging is of vital importance to the well-being of Orchids, besides adding greatly to the

appearance of the houses.

We generally see the plants placed upon an inverted pot on a stage of shingle or some similar material; the system I advocate is that of having a loose staging made up of 1½-inch square laths, either of pitch Pine or good red Deal, unpainted, and raise them to the desired height by means of loose bricks; the staging can then be altered at any time with little trouble, the plants have a free circulation of air amongst them, the lower stage can be damped down far easier, and by introducing a row of small Ferns, intermixed with *Rex Begonias* at the edge, the house may be made far more attractive.

#### PLANTS UNDER STAGES.

The space underneath the stages may be beautified by making a small rockery facing the paths, taking care that it does not interfere with the bottom ventilators and the hot water pipes, or various plants may be planted in the space. I am convinced that the humidity given off by the plants grown underneath the stages is very beneficial to the Orchid. Nothing looks much worse in any house than to see a bare end wall. Cover it with *Ficus repens*. Glass ends may be utilised for growing *Vandates* in the stove house, and in the *Cattleya* and intermediate house the scandent varieties of *Epidendrum*, such as *E. radicans* and *E. o'brieanum*, may be used with good effect.

Gunton Park Gardens, Reigate.

W. P. BOUND.

#### AT THE SALES.

It is always interesting to look in at Messrs. Protheroe and Morris' auction rooms on Fridays, the day of the weekly sale of Orchids. The Orchids in flower make quite a show, and there are always some choice novelties among them. For some weeks past the *Cypripediums* and *Odontoglossum crispum* varieties have been the most conspicuous, but these are now being supplemented by *Dendrobiums* and *Phalenopsis*. On Friday last plants of *Phalenopsis schilleriana* made 32s. 6d. each; a good plant of *P. amabilis rimestadiana*, 52s. 6d.; *P. grandiflora* sold at 10s.; *Laelia anceps sanderiana*, 21s. each; and some at lower prices. A fine piece of *Cypripedium aureum hycanum giganteum* was the most important item of the sale, and this was knocked down for 25 guineas. Some very fine varieties of *Odontoglossum crispum* were offered; one plant made 4 guineas, another over 3 guineas. *Dendrobium nobile virginale*, small plants in flower, sold at 3 guineas; one went a little over this price. A good plant of *Laelio-Cattleya xanthina* × *hardyana* made 70s.; *Cymbidium Lowi*, 34s.; and a good piece of *Vanda Cathartii* sold at 70s. The newly-imported Orchids did not attract much attention, and those sold went at very low prices.

A. H.

## THE INDOOR GARDEN.

### CARNATION SOUVENIR DE LA MALMAISON.

UPON going round a farmer's garden one day last autumn a border against the north end of the house was noticed to be filled with large, healthy plants of this *Carnation*, and an agreement was made with their owner, with the result that we layered the whole of their growths and had what we wanted of the young plants in



DENDROBIUM SPLENDIDISSIMUM GRANDIFLORUM.

return for our trouble. The robust character of the parent plants was really striking, especially when the wet season was taken into account, and they had occupied their position for two seasons. This can apparently only be attributed to the soil that the plants were grown in. It was an alluvial sandy loam from near a disused forge, and incorporated with burnt refuse therefrom. Some successful cultivators of Malmaison Carnations are particularly careful to keep their plants protected at all times from rain, and one of them once told me that he never permitted his plants to be exposed to mist, as rust might be caused from the foliage becoming wet, and his success proves that his management admirably suits the plants' requirements. The plants that have been referred to, however, were fully exposed. Notwithstanding, they were, as their offspring are at the present time, without a trace of rust. Nevertheless, I should be loth to recommend anyone to expose a collection of Malmaisons, that they grew for flowering in pots and propagating from, to the elements, even during the summer months. We strictly guard against our plants, both old and young, getting in any way wet overhead. It would, all the same, be instructive and interesting to me to know what other growers have to say about this matter, for it appears, judging from the above facts, that there is more than one royal road to success even with the Malmaison *Carnation*.

T. COOMBER.

The Hendre Gardens, Monmouth.

### THE CANTERBURY BELL IN POTS.

CAMPANULA MEDIUM, being biennial, should be sown early in the spring. It is necessary to guard against damp, as when sown thickly in pans in a warm house the plants soon damp off. It is also necessary to sow the seeds evenly to prevent damping, and as soon as the plants are well up remove to a shelf or frame, keeping close to the glass. It is best to secure the seed from a good dwarf strain. I have for years taken much interest in *Campanulas*, and have annually selected the dwarfest plants with good substance in the blooms. I have tried the well-known plan of planting out the seedlings in the summer and lifting into pots in the autumn or early in the spring, but I prefer pot culture, using 7-inch or 8-inch pots, and getting the pots well filled with roots by the late autumn. They will then stand our winters in a cold frame or plunged over the rims of the pots on a sheltered, well-drained border, as they suffer more from damp than cold.



We usually sow in a temperature of 60° in well-prepared soil, and cover with a piece of glass or a hand-light and keep moist. The seedlings are pricked off as soon as ready to handle into 3-inch pots and shifted on as required.

## NOTES FROM THE MARKETS.

### COVENT GARDEN FLOWER MARKET.

**W**E have rarely seen the market present a duller appearance than it did last Saturday. Many of the stands still remain empty. In a chat with some of the growers we learn that the continued wet is causing considerable anxiety. The flooding of stoke-holes renders it impossible to keep fires going in some nurseries, and, should we get a sudden change to frost, things would be very serious indeed. Another great drawback is the difficulty of getting soil fit to use for potting. There are few things more detrimental to spring plants than having to use soil in a bad condition, especially for Mignonette and other fine-rooted plants.

We have now nearly seen the last of the Chrysanthemums for this season, but there are still a few good blooms to be seen. Daffodils are in great plenty, both in pots and cut, and prices are down very low. Lily of the Valley is very good and plentiful. Good pots sell fairly well, and there is some trade for cut flowers, but the supply exceeds the demand. Some good Genistas are now coming in; Marguerites are more plentiful again; Cinerarias sell fairly well, there being few bright-coloured flowers in just now; and red Tulips make better prices than any other colour. There are a few red Roses coming in now, but they are as yet scarce. White Azalea is very plentiful, and sells slowly. Callas, both in pots and cut, continue to be in excess of the demand. Erica willmoreana is now in, and E. hyemalis is getting pretty well finished.

We get very few good Chinese Primulas in now. There is not a great demand for them, but one of the largest buyers told us he could always do with some if they were good enough. Cyclamen continue very good and plentiful. Palms and Ferns are plentiful, and they should now sell better, but growers complain of very dull trade, especially in Palms. In the French market there is now a very large supply, and prices are low, but the hawkers clear out a tremendous lot of this produce.

## OBITUARY.

### MR. ALISTER MURRAY.

**N**ATURE-LOVERS in the Edinburgh district have heard with regret of the death of Mr. Alister Murray, Craigmillar, who took a deep interest in several branches of natural history.

Mr. Murray was an excellent botanist, and made a special study of the Mosses and Liverworts, on which he was an acknowledged authority. He was a keen student of the botany of the Lothians, and his knowledge was evidenced by the splendid collection of the Grasses of the district with which he won a prize offered by the Field Naturalists' Society about two years ago. Among other subjects in which he was an expert was that of bee-keeping, and he conducted classes on this at the Edinburgh School of Gardening for Women at Corstorphine. In many ways Mr. Murray will be much missed among a wide circle of students of natural history, as his help to anyone interested was always freely given. His funeral took place on the 9th inst. Mr. Alister Murray was for some years gardener at Dabton, Thornhill, Dumfriesshire, whence he went to enter upon a similar situation in the employment of Captain Christie, Durie, Leven, Fife. He afterwards went to the Blind Asylum, Craigmillar.

### MR. CHARLES FERGUSON.

DEEP regret has been felt by all who knew him at the death, under painful circumstances, of Mr. Charles Ferguson, nurseryman, Nairn. Mr. Ferguson had been missing since the 8th inst., and two days later his body was found in the river Nairn. It is believed that he had accidentally fallen into the river and been drowned. He was a man of more than ordinary knowledge of several subjects besides gardening. He was an ardent ornithologist, and had a splendid lot of birds' eggs, which he had been collecting for a number of years. He was also a deep student of Celtic history and lore, Scottish history, and several branches of natural history. At the time of his death he was engaged upon a history of Strathardle, Perthshire (his native place), for the Gaelic Society of Inverness, of which he was a leading member, and it was generally recognised that few Scotchmen were so well acquainted with all that related to the battle of Culloden. It must not be supposed that Mr. Ferguson was not interested in his own vocation as a gardener. He filled several situations as head gardener with satisfaction to his employers and credit to himself. He was at Cally, Kirkcudbrightshire, the property of Mr. H. G. Murray Stewart, of Broughton and Cally, and Fairburn, Muir of Ord, Ross-shire, belonging to the Stirling family, previous to starting business. A man of his attainments will be much missed from the ranks of north country horticulturists.

## SOCIETIES.

### ROYAL GARDENERS' ORPHAN FUND.

**I**N the absence of Mr. H. B. May through illness, Mr. Poupart took the chair at the annual general meeting of this fund, held at the Cannon Street Hotel, on the 12th inst. There were some twenty-five persons present, including Messrs. H. J. Veitch, Assbee, J. McLeod, T. W. Sanders, J. Lyne, Cuthbert, George Gordon, Joseph Rochford, and G. Reynolds. Mr. Poupart having said how very sorry they were that Mr. May was absent through illness, and they hope that he will soon recover (a telegram was subsequently sent to Mr. May to this effect), the secretary read the notice convening the meeting and the minutes of the last general meeting.

Mr. Poupart, in moving the adoption of the report, said they had cause for congratulation in that they had been able to increase the disbursements during the past year, although the falling off in subscriptions was to be deplored. Some said that subscribers were lost to the institution because there was no election, but he (the chairman) did not see what difference this could make. The amount of money spent on an election would probably keep an orphan.

Mr. Harry J. Veitch seconded the resolution. He referred to the excellent work accomplished by the Royal Gardeners' Orphan Fund; nearly 200 children had been elected, and £12,000 spent since the fund was established. He thought they ought to be thankful to the late Mr. Penny and his friends for starting it. When a gardener dies young it is impossible for him to save much, and it is especially to young widows that the grants prove so useful. Mr. Veitch concluded by hoping that the orphan fund would continue to flourish. The resolution was carried *nem. con.*

Mr. George Gordon proposed that Earl Carrington be elected a vice-president. Seconded by Mr. Joseph Rochford, and passed unanimously.

Mr. Roupell proposed that Mr. N. N. Sherwood be re-elected treasurer. Seconded by Mr. J. F. McLeod, and carried without dissent.

Mr. Assbee proposed, and Mr. Pearce seconded, a vote of thanks to the auditors, and the re-election of Mr. M. Rowan, the retiring auditor. Passed unanimously.

Mr. R. H. Pearson proposed, and Mr. J. Miles seconded, that Messrs. J. Assbee, W. H. Cuthbert, G. Gordon, J. F. McLeod, T. A. Morrison, and W. Roupell be re-elected members of the committee. Mr. Miles, local secretary of the Southampton Auxiliary, said how much they appreciated the good work of the committee. Carried unanimously.

Mr. J. Assbee proposed, and Mr. Cuthbert seconded, that Messrs. William Bull, R. Hooper Pearson, and W. P. Thomson be elected members of committee in place of Messrs. Peter Kay, G. H. Richards, and George Nicholson who retire. Passed unanimously.

The chairman proposed that Mr. B. Wynne be re-elected secretary, at a salary of £125 per year (an increase of £25). Mr. Miles seconded this proposition, and as a local secretary spoke of the ready help Mr. Wynne always gave. Mr. Roupell supported the resolution, which was carried *nem. con.*

Messrs. Assbee, Cuthbert, McLeod, Lyne, and Reynolds were elected scrutineers of the ballot, on the proposition of Mr. Marshall, seconded by Mr. T. W. Sanders.

**RESULT OF POLL.**—George James Lannas, 367; Harry George Pantling, 361; Reginald Joseph Pantling, 339; Margaret Lannas, 328; Louie Witcher, 230; Mary Elizabeth Pretty, 229; Robert Arthur Pretty, 228; Frank William Sonntag, 214; Henry Gillet, 213; Hilda Blanche Ayling, 186.

### ANNUAL REPORT.

The executive committee, in presenting their sixteenth annual report, congratulates the supporters of the fund on

its continued prosperity and usefulness, as, although from causes too well understood by all, they are but able to show a trifling increase over the previous year's receipts from all sources other than legacies, they have been enabled to increase their disbursements in the form of allowances and grants in aid from £1,692 15s. in 1902 to £1,255 10s. in 1903—a total increase of £162 15s. The committee have to deplore the falling off in annual subscriptions, as shown in the accounts presented, and the more so as the deficiency mainly arises from the non-renewal of 5s. subscriptions; but they hope and believe that when this fact becomes known, and the present dearth of money passes away, these subscriptions will be renewed and increased in number. They cannot believe that those in whose interest the fund was established are indifferent to its claims upon their support. Many there are, undoubtedly, who feel that they cannot subscribe 5s. annually, and these may be usefully reminded that all contributions are voluntary, and that the payment of a subscription one year does not imply that it must be continued in the next.

The committee gratefully acknowledges the receipt of a legacy of £25 from the executors of the will of the late Mr. A. F. Osler of Birmingham, and also the kindly generosity of the Earl of Ilchester in throwing open his beautiful gardens at Holland House on the occasion of the Royal Horticultural Society's exhibition being held there, by which means the fund benefited to a substantial amount. The legacies left to the fund by Mr. A. H. Smeed and Mrs. John Willis, amounting to £350, have been invested in the purchase of £350 12s. 2d. 2½ per cent. Consols. The committee keenly regrets to record the loss which the fund has sustained by the death of two of its founders, Mr. A. F. Barron of Chiswick and Mr. James Smith of Mentmore. Of Mr. Barron's devotion to the fund while its secretary for eleven years it is not possible to feel other than the keenest appreciation, or to speak other than in the highest terms; while of Mr. Smith it may be said that for several years after the establishment of the fund he served on the committee, and until his death was a zealous collector in aid of the charity whose interest he had so warmly at heart.

The number of orphans who have been elected to receive the benefits of the fund during the past fifteen years is 179, and the total amount expended in allowances during the same period is £12,192 17s. 6d. At the commencement of the year the number of children receiving the full allowance was 73, and 24 were added to the list by special resolution at the annual meeting. The number on the fund now is 88, and 10 will be added by election to-day. Most of the candidates have been in receipt of compassionate allowances since their nominations were accepted; and while the committee would have been glad if they could have seen their way to put a larger number than 10 on the fund, prudence dictates the safer course, especially having regard to the fact that as a result of the beneficial alteration made in Rule XIII. at the last annual meeting, they have extended the payment of allowances in some cases for varying periods beyond the fourteen years limit.

The committee again gladly tender their warmest thanks to the local secretaries for valued services rendered, and also gratefully acknowledge the zealously continued exertions on behalf of the fund made by gardening friends in various centres, and could heartily wish that their number could be increased. The annual festival held on May 5, under the presidency of the Right Hon. Earl Carrington, P.C., again proved an unqualified success from every point of view, and as a slight acknowledgment of the committee's appreciation of the noble chairman's kindness on that occasion have the greatest pleasure in recommending that Earl Carrington be to-day elected a vice-president. It has been arranged for the next annual festival to take place at the Hotel Cecil on Tuesday, May 17, and the committee are highly pleased to make the announcement that Sir Trevor Lawrence, Bart., K.C.V.O., President of the Royal Horticultural Society, has most kindly promised to preside on that occasion. As the Royal Horticultural Society will this year celebrate its centenary, it is especially gratifying to the committee that its president should have so kindly accepted their invitation, and trust that all friends of the charity will rally round them in support of so distinguished a patron of horticulture.

The members of the committee who retire by rotation are Mr. J. Assbee, Mr. W. H. Cuthbert, G. Gordon, Mr. J. F. McLeod, Mr. T. A. Morrison, Mr. G. H. Richards, and Mr. W. Roupell; and Messrs. Assbee, Cuthbert, Gordon, McLeod, Morris, and Roupell being eligible, offer themselves for re-election. Mr. G. H. Richards does not offer himself for re-election, and Mr. P. E. Kay and Mr. G. Nicholson having resigned, Mr. William Bull, Mr. R. Hooper Pearson, and Mr. W. P. Thomson are nominated to fill the vacancies thus created. The committee have much pleasure in recording their appreciation of the admirable manner in which Mr. William Sherwood discharges the duties of treasurer on behalf of his father, absent abroad, and in anticipation of Mr. Sherwood's early return, as all hope, in renewed health and vigour, he is again nominated for re-election as treasurer. The committee have again pleasure in thanking Mr. M. Rowan and Mr. P. Randolph Barr for their most careful audit of the accounts of the fund. Mr. Rowan is the retiring auditor, and is nominated for re-election.

### GARDENERS' ROYAL BENEVOLENT INSTITUTION. LIVERPOOL AUXILIARY.

THE third smoking concert arranged by the Liverpool auxiliary was held on the 13th inst. at the Bear's Paw under the most favourable auspices. W. W. Rutherford, Esq., M.P., presided over a crowded audience, and was supported by Messrs. T. Foster, G. Haigh, J. Dickson, N. F. Barnes, H. Middlehurst, B. Ker, J. Guntridge, J. Finigan, E. Ashton, W. Gibbins, A. H. Ardran, B. Cromwell, C. A. Young (chairman of committee), A. J. Crippin (treasurer), R. G. Waterman (secretary), and others.

The chairman, who was accompanied by Mrs. Rutherford, gave a stirring and admirable address on the advantages and claims of the institution, urging that it was necessary for all

classes of men to band themselves together for mutual help in time of need and old age, and commended the workers of the local branch for their diligence and zeal in helping forward the good work in this district. A strong appeal was made for more liberal help, so that the many deserving cases could be assisted, which at present was impossible owing to want of funds. To the younger persons present some valuable advice was tendered that they might avail themselves of the many educational advantages now at their disposal, so that when the duty of carrying on the work of horticulture devolved upon them they might be in a position to carry on the work of production and improvement in an even more efficient manner than at present. Mr. R. G. Waterman moved a vote of thanks to the chairman for his admirable address and practical sympathy. He said the Liverpool auxiliary was the youngest and smallest. The first position they could not alter, but the committee hoped that with the aid of ladies and gentlemen and gardeners of the district they might show a greatly improved financial position. Words of appreciation were tendered to Mrs. Rutherford for the great honour that she had conferred upon them by her presence. This was seconded by Mr. H. Middlehurst, and carried with musical honours and prolonged cheering. Mr. C. A. Young, on behalf of the committee, presented Mrs. Rutherford with a beautiful bouquet. Gifts of cut flowers and loans of plants were made by Mr. C. A. Young, Messrs. R. P. Ker and Sons, Messrs. B. Webb and Sons, and others, which added to the general appearance of the room.

#### BRISTOL AND BATH AUXILIARY.

A SPECIAL meeting was held at Chivers' Restaurant on the 12th inst. Mr. W. A. Garaway, occupying the chair, explained the object of the meeting, namely, to consider the advisability of holding a Rose, Begonia, and Orchid show in aid of the institution. Mr. Vallance was invited to explain the position, and remarked on the want of funds to meet the requirements of the Bristol and Bath Auxiliary, and it was felt that the time was opportune to provide some scheme for increasing the income, which at the present time was at a very low mark. They had for several years past been enabled through the generosity of many leading gentlemen of the district, who had allowed their gardens to be thrown open to the public, and by making a small charge to add to their funds, and the auxiliary had also been materially assisted by the Bristol Chrysanthemum Society and the Westbury show by allowing the sale of produce at their respective shows. But notwithstanding this able assistance, they were very short of funds. He (Mr. Vallance) had carefully thought out the matter, and suggested that a Rose show would be the best means of increasing the income of so deserving a charity. He therefore proposed that a show be held for the purpose. He understood that a bazaar in aid of the Winsley Sanatorium was to be held this year at the Zoological Gardens, and it would not be generous of them to hold the show this year in face of that most deserving institution, but he thought it could be done next year. A discussion was invited. Many gentlemen spoke, and on the vote being taken it was unanimously decided to hold the show during the summer of 1905. The question of a guarantee fund was also brought forward, and responded to in a very gratifying way, many gentlemen adding their names to the list of guarantors. An additional committee was elected, and Bristol may now look forward with interest to a floral show which will certainly meet the tastes of all lovers of horticulture.

#### CARDIFF GARDENERS' ASSOCIATION.

A MEETING took place on Tuesday, the 9th inst., at the Grand Hotel. Mr. H. R. Farmer presided. Mr. F. Waller, Cucumber and Tomato grower to Messrs. Norton and Co., Dinas Powis, gave a highly interesting lecture on "The Culture of Tomatoes." Dealing with its history, from which could be easily traced how remarkably rapidly the Tomato had become popular, the lecturer added that home-grown fruits are by far the best, and command the best prices. Medium size Tomatoes find the more ready sale. The debate which followed was enthusiastically taken up. The best thanks of the meeting were accorded Mr. Waller for his splendid lecture.

#### ANNUAL DINNER.

The "Gardeners'" dinner took place at Barry's Restaurant on Wednesday, the 10th inst., at 7.30 p.m., when E. H. Batram, Esq., occupied the chair, supported by the two hon. secretaries (Messrs. H. Gillett and J. Julian), Messrs. H. R. Farmer and T. Malpas, and a large number of the leading gardeners of the district. After an excellent dinner a short toast list was gone through, and several contributed towards the musical part of the programme. A most enjoyable evening was spent, which terminated with a vote of thanks to the chairman, also to the two hon. secretaries, who had done everything possible to make the evening a success.

#### BRISTOL GARDENERS' ASSOCIATION.

A MOST successful meeting of this association was held at St. John's Rooms on Thursday evening last, Mr. E. Poole, F.R.H.S., presiding over a good attendance. The lecturer for the evening was Mr. Powell, acting as representative from the Reading Gardeners' Association. His lecture was entitled "Bouquet Making," and Mr. Powell added much to his able lecture by demonstrating the art of manipulating flowers. He claimed that the floral art was most essential for the gardener to master, and that all young gardeners should endeavour to make themselves perfect as florists. Mr. Powell gave practical demonstrations, forming the foundation of the bouquet, wiring flowers, and arranging them so as to have the most pleasing effect were the main points of his lecture. His bouquet, a very beautiful example of floral art, was passed round the audience. Sprays and button-holes also received attention. A lively discussion followed his lecture, during which he was asked several questions. He was unanimously thanked for his interesting discourse.

#### ROYAL HORTICULTURAL SOCIETY.

##### SCIENTIFIC COMMITTEE (FEBRUARY 9).

PRESENT: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Michael, Baker, Drury, Veitch, Worsley, Bowles, Saunders, Keeble, and Douglas, Dr. Bidley, Revs. W. Wilks and G. Henslow, hon. secretary; visitor, Mr. J. Hickley.

*Beans defective*.—Mr. Horsley of Winsford, Cheshire, sent some mould in which Beans had been grown under glass, but failed. The Beans were old. It was thought that the soil was too light, with possibly deficient light, and the Beans being old might have been deficient to germinate. Mr. Baker has undertaken to investigate the matter.

*Coloured photographs of Orchids*.—Mr. Hickley, natural colour photographer, of Kelson, Bassett, Southampton, exhibited some very beautiful transparent illustrations of Orchids in their natural colours. They were effected by a special process of Mr. Hickley's on plates sensitive to the primary colours—red, green, and violet; but the special treatment by which the excellent results were secured is not yet patented. It was enquired as to the cost of such for lantern slides. These would be from 5s. 6d. to 10s. 6d. A vote of thanks was given to Mr. Hickley for his interesting exhibitions and description.

*Tropeolum tuberosum as edible*.—Mr. Bowles reported that the result of his trial was that while they were edible, he could not at all recommend them as palatable.

#### DUMFRIESHIRE AND GALLOWAY HORTICULTURAL SOCIETY.

THE annual meeting of this society was held in the Town Hall, Dumfries, on the 8th inst., Mr. R. Service, nurseryman, chairman of the directors, presiding. Mr. R. G. Mann, secretary and treasurer, submitted his annual report, which was considered a satisfactory one, although the bad season had caused increased expense at the time of the autumn show, and the first Chrysanthemum show held by the society had also necessitated some initial expenses not likely to recur. The income for the year had amounted to £384 1s. 3d., while the expenditure was £383 ss. 2d. The report was adopted, and Mr. Mann thanked for his services. The appointment of office-bearers was then proceeded with, and the following were elected: honorary president, the Earl of Mansfield; president, W. J. Herries Maxwell, Esq., M.P. for Dumfriesshire; secretary and treasurer, Mr. R. G. Mann, *Courier and Herald*, Dumfries; chairman of directors, Mr. R. Service, of Messrs. James Service and Sons, nurserymen; vice-chairman, Mr. James M'Gregor, of Messrs. Fotheringham and King, nurserymen; other directors, Mr. S. Arnott, Carsethorn, James Henderson, Elmbank Gardens, Mr. James Kennedy, nurseryman, Mr. K. Mackenzie, Elmbank Gardens, and Mr. J. Learmont, of Messrs. W. Learmont and Son, nurserymen. The chairman and secretary were heartily thanked for their services during the past year. In returning thanks the chairman expressed his gratification at the success of the efforts of the society during the past year. He thought the present directorate had acquired the confidence of the exhibitors and the public, and that, with continued support from these, the difficulties they had encountered in rehabilitating the society had been practically overcome.

#### MANCHESTER HORTICULTURAL SOCIETY.

AT the last fortnightly meeting of this society Mr. Councillor Bentley of Middleton gave an interesting address on the Florist's Tulip. There was a large attendance. Mr. Abraham Stansfield, who occupied the chair, introduced the lecturer as not only an amateur florist of distinction, but the son of an amateur florist.

Mr. Bentley said the Tulip appeared to have been held in estimation for a long time by the Turks, and to have been first procured from them in the year 1554, and grown at Vienna. Conrad Gesner, whose memory was perpetuated in the generic name, *Tulipa Gesneriana*, first saw the Tulip plant at Augsburg in the year 1559. It quickly became popular, and in 1577 made its appearance in England, where it was extensively grown for many years, and a great number of new varieties were raised from seed. Parkinson, writing in 1629, enumerated 140 varieties, and spoke highly of their beauty.

The Tulip continued to be a great favourite in this country until about 1750, when other plants, chiefly American, came into fashion, and in the gardens of the wealthy gradually superseded it. The lecturer paid a worthy tribute to those English florists who have since continued the culture of this beautiful flower, and afterwards proceeded with the descriptive part of his lecture, which was made clearer by the use of coloured diagrams.

In the discussion that followed, Messrs. Elkin, Edwards, Tait, Kay, Paul, Entwistle, and others took part.

#### CROYDON HORTICULTURAL SOCIETY.

THE fourth annual dinner of the Croydon Horticultural Society was held at the Greyhound Hotel, Croydon, on Wednesday evening, the 10th inst., when, despite the weather, there was a good attendance. Mr. J. J. Reid, the president of the society, was in the chair, and was supported by Dr. Brook Ridley, Messrs. L. Stanley Jast, C. H. Curtis, H. Boshier (hon. secretary), P. F. Bunyard (treasurer), and others.

After the usual loyal toasts by the chairman, Mr. C. H. Curtis gave the toast of "The Society." He was glad to see that the society was such a prosperous one. He regretted that there were so many societies in Croydon, as he always considered there was a great waste of energy. They were all working for the same ends, and consequently should combine.

Mr. Boshier, in reply, observed that it was his opinion the three societies were working most amicably together; in fact, the Croydon and District Horticultural Mutual Improvement Society had been described as the nursery of the other societies. In this society every member was

encouraged to voice their feelings and opinions, and the younger members were encouraged as much as the older ones. It was his pleasure to report that the association had had a most successful year, and that it was enabled to carry forward a substantial balance to the ensuing season. They had also held a very successful spring exhibition and an essay competition. The society had instituted a gardeners' registry, and by this means had been enabled to secure a situation for one of its members. Mr. Boshier referred to the great privileges which the society conferred on its members from an educational point of view. He then remarked that for the size of Croydon the society had not so large a membership as it should have, and he appealed to all members of the gardening profession to join their ranks and assist in the mutual improvement for which the society existed.

Mr. Gregory (chairman of the society) proposed "The Kindred Societies." In the course of his well-chosen remarks he pointed out that kindred societies had always been a hobby of his, and he was exceedingly pleased to see so many friends from kindred societies rally round them as they had done that evening.

Mr. W. Gunner, in reply, said no society appreciated the success achieved by this association more than did the Croydon Horticultural Society, and he hoped that it would have still greater aims in the future.

Mr. P. Bunyard, in proposing "The Chairman," compared him to a pilot, which was so necessary to steer ships in dangerous places. The worth of their chairman, he also said, could not be over-estimated.

Mr. Reid thanked them in the warmest terms. He said he had some doubts as to whether he ought to accept the presidency of the society, but he did so because he had once belonged to a mutual improvement society.

#### EAST ANGLIAN HORTICULTURAL CLUB.

THE members who attended the February meeting of this club had a rich treat provided for them by Mr. E. Peake. The subject of the discourse was "The Camera in the Garden," and some splendid slides were thrown upon the screen by a powerful lime-light lantern. Starting with one of our commonest wayside flowers—the Dead Nettle—owing to its curiously constructed blossom first led Mr. Peake to study botany. The large audience were led through many of the gardens familiar to them by repute as the home of choice flowers. There were some charming views of Westwick House Gardens, and in one the head gardener (Mr. G. Davison) was seen explaining the beauties of hardy flowers to a large party of interested excursionists. Mr. Peake has also been to Devonshire and crossed over to the Continent, on each occasion with his camera. The pictures of Continental gardens, with the explanations, were of much interest. Many of the bog plants indigenous to Norfolk were splendidly portrayed also. Mr. Peake further delighted his hearers with an illustrated outline of the career of George Borrow, author of "Lavengro," "The Bible in Spain," &c. This local worthy was a lover of Nature.

A discussi followed, in which Messrs. T. B. Field (Ashwellthorpe), J. Clayton, H. Perry, J. Powley, G. Daniels, and others took part. A hearty vote of thanks was accorded Mr. Peake for his interesting lecture. The monthly competitive tables were well contested, especially in the flower and vegetable sections, Messrs. W. Rush, A. F. Cooke, F. Williams, and R. Abel staging capital pot plants, and Messrs. C. Hines, F. Carrington, and C. Matthews splendid sprouts, Asparagus, and other vegetables. Mr. C. Fox, gardener to Sir Edward Mansel, Bart., Catton House, is able to produce good Camellias in profusion, judging by the display he set up. Several new members were proposed, and the newly-elected Member for Norwich—Mr. Louis Tillet—became an honorary subscriber. The botanical section of the club also continues to hold its fortnightly meetings at the Higher Grade School, Norwich. Recent subjects discussed are: "Cypripediums," opened by Mr. T. B. Field; "Tuberous Begonias," paper by Mr. H. Perry; and "The Vine," introduced by Mr. J. W. Church, Braconash.

#### EALING HORTICULTURAL SOCIETY.

THIS society, which has now been in existence for forty years, and during that time has experienced some changes of circumstances consequent upon wet seasons and other causes, held its annual meeting on the 12th inst. The report of the committee set forth that the weather was propitious on the occasion of the annual exhibition in July last, that there was a good exhibition all round, a large attendance, with the result that the finances of the society had so improved that a debt left over from 1902 had been cleared off and there was a small balance in hand. The adoption of the report and balance sheet having been carried, Mr. R. Dean opened a discussion on the position of the society, by moving an instruction to the committee that the annual meeting be held in the month of January, and the schedule issued in such time that it may be in the hands of the members at least three months before the date of the show. This was seconded and carried. The committee had recommended that the show take place in the Walpole Public Park on July 6. Objection was taken to the latter date on the ground that it clashed with the Henley Regatta week and the annual exhibition of the National Rose Society, June 29 being named as the best date, while it was considered that the show should be held in Gunnersbury Park, Mr. Leopold de Rothschild being the president of the society. Eventually these matters were referred to the committee for decision. Mr. Leopold de Rothschild was re-elected president; Mr. A. G. Dixon, treasurer; and Mr. G. Cannon, secretary. Complaints being made that so few members of the Corporation and of the leading inhabitants supported the society, it was suggested that as all other societies of a social and philanthropic character had annual dinners, that an attempt should be made to hold one by way of calling attention to the claims of the society for support. The matter was referred to the committee to carry out if they thought it desirable to do so.



# THE GARDEN

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## FLOWERS, TREES, AND SHRUBS FROM JAPAN.

IT may interest those who love their gardens to think at the present moment, when Japan is, unfortunately, looming large on the political horizon, of the beautiful trees, shrubs, and hardy flowers that have come from that distant land. Illustrations are given on pages 150 and 151 of an Iris garden and a Wistaria bower to show how intensely the love of flowers enters into the life of the people. We owe much to the vast empire of China also for trees and flowers that are, or will be, part of our English woodlands and gardens. In a very interesting article, entitled "Sidelights on Things Japanese," in *Flora and Sylva* of June last, this increasing knowledge of the flora of Japan and China is pointed out, so much so that we have even attempted to imitate in a clumsy way the quaint gardens of Japan, to which allusion is made in the notes accompanying the illustrations on the pages named. "One of the most striking changes," writes Mr. Burbidge in *Flora and Sylva*, "in British gardening of late has been the delight with which we have welcomed the flora of Japan and China. In this welcome the art treasures of both countries have shared more and more, although, as a fact, these were highly valued by connoisseurs long before much interest was taken in Japanese vegetation. The gardening and botanical literature of China and Japan goes back much further than our own, and their modern works are well worthy of special study. No doubt hybridisation and cross-breeding in both countries were effected long ere they found anything like general adoption in Europe, and their very variable races of Lilies, Maples, Chrysanthemums, Adonis, Anemone (Hepatica), Psilotum, Iris, Hemerocallis, Nandina, were originated centuries ago. When Fortune first visited China, about 1843, he took out with him some of our best florist's flowers, and was surprised that they seemed to value nothing he took with him except zonal Pelargoniums! The Japanese were but little more sympathetic, probably because they had so many lovely flowers of their own, and, what is more, so much of sentiment and conventional or legendary lore bound up with them and the seasons at which they naturally bloom. Their

"LOVE OF FLOWERING TREES AND SHRUBS is well known, and the introduction of their Crabs, Cherries, Magnolias, Wistarias, Plums,

and Vines, to say naught of many other choice garden flowers, has given a greater impetus to the planting of flowering trees, shrubs, and climbers in British gardens than any other event of our time. Even Japanese fruits, such as the Plum and the Kaki, are already becoming of much economic interest in California and elsewhere in the warmer United States, in South Africa, Italy, and the South of France. The introduction of the Japanese Chrysanthemum by Fortune, as we all know, led to a great change in the cultivation of that popular flower in our home gardens. To-day the

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affords another instance of how Japan has helped us in our gardens, and there is reason to believe that these woody-stemmed grasses have been hybridised in that country, but whether as wild or as cultivated in gardens we do not at present know. Take, again, the varieties and forms of the Japanese Maple, and one or two other species, their variation is surprisingly rich, and, so far, we are at a loss to know whether their origin is mainly from seed as wind-fertilised, or whether the custom of grafting, or rather inarching, has not helped in their production.

"As to Cherries and Plums, their name is legion, and the beautiful double-flowered kinds of these are probably of garden origin. The same remark applies to many Lilies, Tree Paeonies, and especially to the artificial rearing of seedling Iris Kämpferi so-called, which are believed to have all come from the purple *I. lævigata* of Siberia. Siebold's Primrose, again, is no doubt a garden development of the Siberian and Chinese *Primula cortusoides*, both having reached Japan *via* China long ago."

The English spring in a woodland planted with the beautiful Plums, Cherries, and other trees from Japan gains in fresh and beautiful colouring. It is interesting to know this at the present moment, but the enthusiasm to imitate

### JAPANESE GARDENING

in these isles is a passing fancy. Fashion is responsible for many horticultural misdeeds. We are *not* Japan, though we owe much to her beautiful flora. A group of Magnolia or Prunus, or whatever the tree, shrub, or plant may be, is beautiful itself, but gardens hedged round with Bamboo canes, intersected with stepping-stones, and planted with the hope of bringing sunny Japan to England are not a delight. We burlesque the real thing.

Mr. Burbidge supports us in his concluding paragraph: "Some of these new Japanese gardens are far from being artistic or from being *Japanese* (the italics are ours), and we believe that they cannot be successfully done except by those who know Japan. . . . What they do in gardens is bound up with their history, geography, and literature, and other things unknown to most who have formed such gardens here."

## PROPOSED NATIONAL GARDENERS' ASSOCIATION.

A PUBLIC meeting was held on Tuesday afternoon to consider the report of a provisional committee as to the advisability of forming an association of private gardeners. This committee has had several meetings, and on Tuesday last presented an outline of its scheme to the public in the form of a resolution. Subsequently an amendment was proposed to the effect that the association be formed of professional gardeners, not private gardeners only. The supporters of the resolution and the amendment were apparently agreed as to the aims and object of the proposed association, but they were at variance upon the matter of restricting membership to private gardeners. Mr. Divers, who moved the resolution, was invited to withdraw the word *private* (gardeners), but could not see his way to do so. Eventually the amendment was carried by a very large majority, and a provisional committee was elected to form a professional gardeners' association. A general meeting will be held later, probably during the Temple show week, to hear the report of this committee. It seems incredulous that out of the head gardeners' committee, who have had the matter in hand, only four should attend the meeting to support their own resolution. If this is to be taken as an indication of their feelings on the subject then it would seem that they are not enthusiastic.

## RAMBLES IN CHILE.

### MANY GARDEN FLOWERS AT HOME.

WE anchored at Coronel at four o'clock on Christmas Day, but decided to defer going ashore till the following morning. Lota, famous throughout Chile for its park and gardens, was the object of our day's excursion, and we intended to go there by a train leaving at eight o'clock. The fates ruled otherwise, for we arrived at the station in time to see the train some two hundred yards already on its way. *Solvitur ambulando*, we set out to do the six miles on foot, following the railway track, which skirts the shore till, cutting

through a headland, the southern boundary of Coronel Bay, it arrives at Lota. We had not gone far before we recognised *Convolvulus Soldanella* and *Nolana paradoxa*, a patchwork of light pink and vivid blue growing in profusion amongst the dark-coloured beach sand. They had as companions a small Spurge (*Euphorbia portulacoides*), in height about 5 inches, with greenish grey foliage and minute dark red inflorescence; also *Polygonum maritimum* and *Salsola Kali*, two widely-distributed beach plants. A little further on we came across *Acacia cavendishii*, not then in flower, but bearing its green pods, which, like the closely-allied species *A. farnesiana*, so often serve as the food of cattle. The prizes of the morning's walk were yet to come. On entering the first cutting I spied, growing on the top, a few spikes of red *Alstroemeria* (*A. Ligtu*). To climb up and pick it was the work of a few seconds. For me it was more than an ordinary find, for had I not from earliest childhood been taught to consider the clumps of red and yellow *Alstroemerias* the pride of the garden at home? Subsequently we found it growing plentifully, the stalks varying from 8 inches (and even not more than 2 inches in the sand near Talcahuano) to quite 2 feet where it had the shelter of a shrub. The variety of tints in the perianth endows this beautiful *Amaryllid* with the charm of a blended colour tone which is peculiarly its own.

The other special prizes of our walk were a giant *Lobelia* of the species *Tupa*, its handsome, erect stems, sometimes as high as 6 feet, crowned with flowers of a rich red, and growing in clumps of six or eight stems, with grey-green, almost rigid leaves. Everywhere it grew in profusion, and was perhaps the most noticeable plant of the district. Another handsome and interesting plant was a *Francoa* (*F. sonchiflora*), nearly allied in appearance and structure to the *Saxifragæ*, a purely Chilean genus, its stems, often 3 feet in length, terminating in a spike of bracteate, rose-coloured flowers. Another plant of which Chile can boast some sixty species was a *Calceolaria*, which decked the banks of the cuttings, bearing its bright yellow clustered flowers on an 8-inch stem. Making a detour over a headland, we found a *Bromeliad*, one of the species *Puya*, with stems 3 feet in height, an *Oenothera* with pale yellow flowers, and some of the pretty blue flowers of a *Godetia*. Here also were many plants of a *Libertia* (*Iridæ*), but we only found one still bearing its small white flowers in a tufted cyme.

As we regained the track the embankments were covered by bushes of a yellow *Lupin*, not indigenous, in full flower. We also noticed a *Dodder* strangling the growth of a shrub (*Griselinia scandens*), with stiff, Laurel-like foliage. Here also was a *Rumex*, carpet-like, with its handsome, dark red flower-spikes, and *Conanthera bifolia* (*Liliacæ*), remarkable for its slender 6-inch stem terminating in a small single flower, with dark mauve petals punctated at their base and markedly recurved, contrasting with the yellow-pointed stamens; the blue *Cichorium Intybus*, introduced by the Spaniards, and now common in Chile; and a small *Flax* (*Linum Aquilinum*), with rich orange-coloured flowers, must be added to the list of our finds.

The afternoon was pleasantly spent in the Lota Gardens, where many species of indigenous and imported trees and shrubs, bright, formal beds of *Geraniums*, &c., a Fern gully, and beautiful views of the Bay of Lota from the high bluff on which the garden is placed make it one of the most beautiful spots in South America.

We were fortunate in finding Mr. Reilly, who has had charge of the gardens for so many years, at home, and, amongst many interesting topics, he told us that he had been, and was at present, very busy in planting the hill slopes near Lota with *Eucalyptus* and two *Pines*—*P. maritima* and *insignis*. The latter, he said, was the more successful of the two, though the thinnings of all three served as pit props for the Lota collieries. He mentioned that 6 feet was not an uncommon growth for the *Eucalyptus* to make in one year, and he also told us that the slit system of planting the seedling trees was exclusively adopted.

RALPH T. HINCKES.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 8.—Royal Horticultural Society's Drill Hall Meeting. Horticultural Club, House Dinner at 6 p.m. Discussion opened by the Rev. Professor Henslow, on "Botanising Excursions."

March 9.—East Anglian Horticultural Club Meeting.

March 16.—Royal Botanic Society's Flower Show.

March 22.—Royal Horticultural Society's Drill Hall Meeting.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).

**Veitch Memorial Medals** have been awarded by the trustees to Mr. Thomas Challis, head gardener to the Earl of Pembroke, Wilton House, Salisbury, and to Mr. John Wright (formerly of the *Journal of Horticulture*).

**Sale of plants at Chiswick.**—On Thursday, March 10, Messrs. Protheroe and Morris will hold a sale at Chiswick of plants grown in the Royal Horticultural Society's Gardens. Included are 250 bush Apples, 100 choice Fig trees, and many greenhouse plants.

**Groups at the Temple show.**—The Arrangements of the Royal Horticultural Society for the year 1904, just received, furnish much interesting reading, and some rules and suggestions regarding the Temple show should effect a greatly needed improvement. First and foremost is the overcrowding of the groups, concerning which we read: "The council desire that (1) all groups should be less crowded, and that (2) masses of colour should be broken up by the use of green foliage. It would be far better if exhibitors would be content to show less and confine it to the best of their produce only. (2) Applies especially to *Azalea mollis*, and to *Tulips*, *Anemones*, and cut flowers generally." This should do something to prevent the marked overcrowding with which we are too familiar, for many of the groups were last year examples of how many plants it is possible to pack within a given space.—H. P.

**"Transactions" of the Scottish Horticultural Association.**—The "Transactions" of this association for 1903, which have just been issued, form a record of remarkable progress and of sound work in the interests of horticulture in Scotland. They contain a list of the office bearers and members; the syllabus of the meetings (to be held in Duwell's Rooms, Edinburgh) for 1904; the constitution, bye-laws, and rules; the report of the Session of 1903 (a model of what such a report should be); minutes of the meetings held in 1903; the papers read at the monthly meetings in 1903; some valuable notes on Mr. Scarlett's Potato growing experiments; and an abstract of the accounts. As a considerable amount of information regarding these has already appeared in THE GARDEN, it is unnecessary to enter at present into further detail regarding them. It is desirable, however, to indicate the subjects of the papers arranged for in the current year. Besides that on "Shrubs," already given by Mr. Whytock, the subjects arranged for are: March 1, "Scottish Plant Names," by Mr. R. P. Brotherston; April 5, "Hardy Fruit Culture as Bearing on the Repopula-

tion of the Rural Districts," by Mr. W. Williamson; May 3, "Flowering Trees and Shrubs," with limelight views, by Mr. George Gordon, V.M.H.; June 7, "Florists," by Mr. J. Grieve; July 5, "Herbaceous Calceolarias," by Mr. C. Comfort; August 2, "Egypt, Palestine, and Greece," by Mr. Peter Barr; September 8, "Stone Fruit on Walls," by Mr. W. Smith; October 4, "Potatoes," by Mr. T. A. Scarlett; November 1, "Chrysanthemums," by Mr. W. Lamont; December 6, "Manuring of Bush Fruits: Insect Pests," with limelight views, by Mr. Shrivell. Excursions will also take place as follow: July 30, Dalkeith Palace Gardens; September 24, Redbraes Nursery; October 1, Hawthornden. The annual subscription is only 2s. 6d., and the secretary is Mr. Peter Loney, 6, Carlton Street, Edinburgh. All Scottish gardeners should be members of this association. It may also be mentioned that the great Chrysanthemum show of the society will be held in the Waverley Market, Edinburgh, on November 17, 18, and 19.

**Coleus thyrsoideus at Glasgow.**—In the public gardens of Glasgow Mr. James Whitton makes great use of this plant for winter flowering, and it is generally much admired by visitors to the fine glass structures which Glasgow is fortunate in possessing in several of her parks. It is cultivated in considerable numbers in the Botanic Gardens also. Few flowers introduced so lately as 1897, as was this *Coleus*, have made such speedy progress as *Coleus thyrsoideus*, and Mr. Whitton was quick to discern its value for winter flowering. Its spikes of blue flowers are most pleasing.

**Sisyrinchium grandiflorum.**—The natural order *Iridæ* furnishes the garden with many an object of interest, the most notable now in flower being *Sisyrinchium grandiflorum*. It is a native of North America, and thrives in almost any soil or position in the rock garden, mixed border, or under a north wall. The albino form is not so easily managed, as it does not possess such a robust constitution; but where properly grown, as with Messrs. House, of Bristol, it is one of the most beautiful hardy plants. It may be propagated readily by division in the early autumn.—W. WALTERS, *Colesbourne Park Gardens, Gloucester*.

**Hardy Heaths in flower.**—The various hardy Heaths, which continue to gain in popularity year by year, have such a long flowering season that there is not a month in the year when they are not in bloom. This is largely owing to the fact that in the case of most of them the individual plants flower continuously for such a long time that the winter, spring, summer, and autumn often considerably overlap. That charming form which, under the name of *Erica mediterranea* hybrida, has within the last six years or so attracted much attention is often well in flower by Christmas, at which season its reddish purple colouring is welcome. Though so long in bloom, it promises to continue for some time yet. The early history of this delightful Heath does not seem to be generally known, but it was, I believe, raised at the Darley Dale Nurseries and distributed from there. Judging by appearances, there is little doubt it is a hybrid between *Erica carnea* and *E. mediterranea*, but on this point the singular fact may be noted that it flowers earlier than either of its parents. Early in the New Year comes the little dense-growing *E. carnea*, or herbacea as it is often called. The bright rosy red flowers are very welcome, but less so those of its variety alba. While this exhausts the list of Heaths that are just now in full flower, there are others whose earliest blossoms are expanding, and, given favourable weather, they will soon make a good show. Of these may be noted *E. mediterranea* and its varieties, as well as *E. lusitanica*, which is better known as *E. codonodes*. This, one of the largest of the hardy members of the Heath family, bears a great profusion of drooping bell-shaped blossoms, in colour white, slightly tinged on the exterior with pink. This is sometimes damaged by severe frosts, but unless much injured it soon recovers. Good-sized bushes of this are very attractive when flowered under glass.—T.

**Gooseberry bushes and caterpillar in winter.**—Last summer was the worst we have experienced for all pests in the garden, and as it is almost impossible when the trees have ripe fruits to cleanse them, much can be done now in getting rid of the pest, and at a season when there is more time to do the work thoroughly. The best remedy I have hitherto tried is to remove the surface soil directly under the trees and cart it away and burn it, and replace with new, at the same time adding a liberal quantity of manure. This done, the trees get the benefit of the new soil and food, and by the removal of old the pest in the surface soil is destroyed. Digging in a good depth would do much good, but this is not possible in many places. I have found it much better to lift the trees if young and replant; then the old quarters can be trenched. Of course this cannot be attempted with old trees, and here I would advise without further delay that a new surface dressing be given after removal of the old soil.—S. H. M.

**Exhibition of spring flowers and Orchids at Dusseldorf.**—In connexion with a grand exhibition of spring flowers, to be held at Dusseldorf from May 1 to May 9, there will be a special show of Orchids on May 1, 2, and 3. Entries close on April 1. All communications concerning Orchid exhibits should be addressed to M. Otto Beyrodt, Marienfelde, Berlin. Many handsome prizes are offered in the various classes for Orchids. For a collection of 100 or more of the finest Orchids in flower (different), the prizes are: First, £50; second, £25; third, £15. There will be other exhibitions of Orchids from September 3 to 6, and from October 21 to 23.

**The flowering of Bamboos.**—Since writing the note, which appeared on page 109, on the above subject I have heard from a friend who lives on the western borders of Devon, that all the clumps of *Phyllostachys Henonis* in his garden are showing flower, so that I fear there is but little doubt that this species will flower generally in the south-west during the present season, a most regrettable circumstance, as this Bamboo is the loveliest of the whole race, and the great clumps, over 20 feet in height, that retained their fresh green throughout the winter, will lose their beauty for at least a year, even if they do not succumb altogether.—S. W. FITZHERBERT.

**Helleborus niger.**—"H. T. M." in his note on the Christmas Rose (page 113), writes: "H. n. maximus bears larger flowers, and is well adapted for forming a succession to the above-named" (*Helleborus niger*). *Helleborus maximus* or *altifolius*, as it is more generally styled, perfects its blossoms before and not after *Helleborus niger*, both the type and the Bath variety. With me it almost invariably commences to bloom towards the end of October, and produces perfect flowers through the whole of November and during the first week in December, but at Christmastide it is useless, and is succeeded by the type and other late-flowering varieties. In a colder climate it would doubtless be later, but I am sceptical of any climatic influences causing it to succeed instead of precede *Helleborus niger*.—S. W. F.

**Colletia cruciata.**—I notice that in writing on this shrub (page 38) Mr. A. C. Bartlett says that it "rarely grows more than 4 feet high." I know many examples that far exceed this height; indeed, specimens 6 feet or more in height are by no means uncommon in the south-west. At Bicton there is an immense shrub, and at the mouth of the river Dart there is one that two years ago was fully 8 feet in height, with a diameter of over 6 feet. This particular example flowers so profusely every November that it appears white with its tiny waxy flowers, which exhale a pleasing fragrance noticeable on fine, still days at some little distance from the bush. A small spray from this shrub, forwarded by me, was illustrated in the pages of THE GARDEN not many months ago.—S. W. F.

**A winter-flowering bedding Viola.** A bedding Viola which will commence to bloom in November and be a mass of blossoms in January and February is an acquisition. Out of some 2,000 plants of Violas growing in the open air this

is the only one in flower, and it occupies one of the most exposed positions in my Hounslow garden. It is the most cheerful subject in the garden, though Daisy and Primrose are struggling to flower. Of singularly dwarf, spreading, tufted growth, the flowers, which are sulphur-yellow in colour, are of good shape and substance, and well displayed above the foliage. I have had this Viola for three years. This year it is floriferous and pleasing to the eye, and I have given it the name of Winter Cheer. I intend to seed from it, and, perchance, may obtain a race of true winter-flowering Violas, continuing on until the earliest of the summer-flowering varieties commence their floral services. Its low, spreading habit of growth fits it for carpeting beds of spring-flowering bulbs, but while, as a rule, the bulbs precede the Violas in the order of blooming, in the case of Winter



ROSE CAROLINE TESTOUT IN A TOWN GARDEN.

Cheer the Viola precedes the bulbs. No special culture whatever has been given it; it blooms in its own good time without assistance of any kind.—R. DEAN.

**Rose Caroline Testout.**—I send you a photograph of Rose Caroline Testout growing in a town garden, in a London suburb in fact, just to show you that it does not appear to mind very much the foggy and smoke-laden atmosphere and other inconveniences of the town garden. There are numerous Roses that will grow well under similar conditions, and Caroline Testout is one of the best of them.—W.

**Horticultural lectures at Altrincham.**—Miss Crooke, assistant at Lady Warwick College, Studley, has arranged to give a course of lectures on horticultural subjects.

The first was attended by about forty ladies, who were much interested. Miss Crooke explained the various methods of digging, double digging, and trenching in a very lucid manner, and also strongly advocated the regular use of the Dutch hoe in dry weather instead of the often ineffectual use of the hose-pipe by ladies. This being rather a venture and an expensive one, it is satisfactory to know that thirty-nine course tickets have already been sold—a sufficient guarantee of the interest taken in gardening pursuits by the ladies of Altrincham and Bowdon. The lectures that are to follow are: "Seed-sowing in the Open Air and Under Glass," "Potting, Planting, and Transplanting," "The Different Uses of the Dibble and Trowel," "Watering," "Feeding," "Mulching," "Walled Gardens and their Purposes," "The Flower Garden," "Different Kinds of Preparation and Formation," "The Rose Garden," "The Herbaceous Border," and "Carnations."

**Royal Scottish Arboricultural Society.—Jubilee Meeting.**—The jubilee meeting of this society was held in Edinburgh on the 16th inst., when there was a large attendance of members. Mr. W. Stewart Fotheringham of Murthly, the president of the society, occupied the chair. The chairman warmly welcomed the delegates from other societies, among these being Mr. A. D. Webster, from the Royal Horticultural Society; Mr. P. Murray Thomson, from the Royal Caledonian Horticultural Society; and Mr. C. Comfort, from the Scottish Horticultural Association. The report of the council, which was submitted by Mr. Galloway, the secretary, was highly favourable. It was stated that there had been a net gain during 1903 of sixty-one members, making the total membership 1,011. Reference was made to the steps being taken by various Scottish public bodies to promote education in forestry; to the arrangements for procuring information about the Larch disease; to the forthcoming forestry exhibition at Perth; to the society's excursion to France in 1904; and various other subjects. The report was adopted, and a motion in support of proposals to establish a State forest demonstration area, trial plots in connexion with Edinburgh University, and a forest school for Scotland was carried. The financial statement, submitted by Mr. Methven, treasurer, was also satisfactory, the total funds at credit of capital account being £1,229 7s. 6d., as compared with £944 17s. 2d. at the close of the previous account. In 1894 the society had only £61, of which £50 belonged to the forestry chair fund. The members then proceeded to elect the office-bearers, Mr. Stewart Fotheringham being re-elected president, and Sir K. J. Mackenzie, Bart., of Gairloch, and Mr. C. Buchanan, overseer on Penicuik, vice-presidents; Mr. Munro-Ferguson, M.P., was appointed hon. secretary, and Mr. R. Galloway secretary and treasurer. Among the members of council are Mr. W. MacKinnon, nurseryman, Edinburgh, and Mr. R. V. Mather, nurseryman, Kelso. The chairman gave a most interesting address in connexion with the celebration of the society's jubilee, in which he traced the history of the society in a lucid and much-appreciated manner; and afterwards Mr. Fraser Story, lecturer on forestry to the Edinburgh and East of Scotland College of Agriculture, gave a paper on "German Forestry"—an admirable address—which was followed by some discussion, generally of a favourable character. In the evening the jubilee dinner took place in the North British Hotel, and was very largely attended. The president of the society presided, and a long toast list was gone through, the speeches being generally eloquent and appropriate. The toast of the evening, that of "The Royal Scottish Arboricultural Society," was proposed by Dr. Somerville, of the Board of Agriculture, and responded to by Mr. Stewart Fotheringham, the president. The whole celebration passed off in a most satisfactory manner, and there is a general opinion that the society, in its efforts to improve Scottish forestry, will be strengthened by this jubilee gathering.

**The Caerphilly Horticultural Society** will hold its annual show this year on August 17.

## EVERGREEN HOLLIES.

## ILEX AQUIFOLIUM AND ITS VARIETIES.

**C**ILIATA and *ciliata major* are distinguished by the long slender spines standing well away from the body of the leaf; the latter is a more vigorous plant than the former, and has larger leaves, but *ciliata* is a neat-habited and pretty variety.

*Crassifolia*.—This rare variety is more of a curiosity than anything else. It has a thin, rather ungainly habit, and the leaves are remarkably thick in texture; they are 2 inches or more long, the body of the leaf about half an inch wide, but set with thick triangular teeth one-eighth to a quarter of an inch long. It is known as "Leather-leaf" Holly, and is represented in the Kew collection by a specimen 10 feet high.

*Crispa* and *crispa picta*.—These two Hollies are distinguished by the curious spiral twisting of the leaves, which are thick in texture, and dull green in *crispa*, but blotched with yellow in *crispa picta*. These two Hollies are sometimes called *tortuosa* and *tortuosa aureo-picta* respectively.

*Donningtonensis*.—A variety of graceful habit, with foliage of a distinct purplish shade of green. The leaves vary in shape, but are usually small and very narrow in proportion to their length; the tooting is very irregular, and sometimes quite absent.

*Ferox* (the Hedgehog Holly).—A curious but not displeasing variety, whose leaves are medium-sized or small, and distinguished by having spines not only on the margins but also clustered on the convex surface. *Ferox argentea* has white spines both at the margins and on the surface, and that part of the leaf from which they spring is also white. *Ferox aurea* has a large blotch of yellow on the leaf, but the spines are green. All three varieties are marked, not only by the formidable armature of the foliage, but also by the recurved margins and "curly" leaves.

*Flavescens* (Moonlight Holly).—Like the common Holly in size and shape of leaf and in habit, this variety differs in the foliage, having a peculiarly soft yellow tinge when young. The colouring is most evident in the youngest leaves, and the older ones become gradually darker. The dark central mass of the bush, with its light yellow-tipped shoots, has quite the effect of a plant lit up by moonlight.

*Fischeri*.—Whilst many of the leaves of this Holly are like those of the ordinary form, only larger, and having bigger and more irregular teeth, others are remarkably distinct in having a narrow triangular shape, and tapering gradually from the truncate base to a fine point, the margins being almost or quite unarmed. The largest leaves are 4 inches long by 2 inches wide.

*Fructu-luteo*.—So far as foliage and habit are concerned this does not differ materially from the common Holly. Its berries, however, are bright yellow, and make it one of the most pleasing and ornamental of all berry-bearing shrubs. Nothing is more beautiful than a well-berried specimen of the common red-fruited Holly in bright weather, but in dull, sunless, or murky weather this yellow-fruited variety is much the more effective.

*Golden King*.—Messrs. Little and Ballantyne, of the Carlisle Nurseries, sent out this Holly a few years ago. It promises to be one of the finest golden-variegated sorts. The leaf is broad and large, not very spiny, with a broad, irregular band of deep gold round the margins. Sometimes more than half the surface of the leaf is golden.

*Handsworthensis*.—I consider this one of the most effective of the silver-variegated varieties. The creamy white margin to the leaf is well-defined, and contrasts well with the purple bark of the younger branches. The leaves are rather longer than in other "silver" varieties, and the variety is known in some nurseries as *argentea longifolia*.

*Hodginsii*.—Of the varieties with large green leaves this is, perhaps, the most popular. It is a vigorous plant, the leaves being elliptical or broadly ovate, and as much as 4 inches long by nearly 3 inches wide; they are of a very dark green, and armed with strong spiny teeth. The bark is purplish. A very useful variety.

*Latispina*.—This striking Holly is not so much grown as one would expect from its distinct appearance and vigorous growth. The leaves are of medium size, but are remarkable in having sometimes none, sometimes as many as six, but usually two or three marginal teeth. These are very large, sometimes twisted downwards, sometimes upwards, and give the leaf a curiously contorted aspect. The apex is drawn out, and tapers to a long, depressed, spiny tooth. The foliage is of a rich lustrous green, and the bark purple.

*Lawsoniana*.—Among the golden Hollies this is noteworthy for the size of its leaves, which are frequently 3 inches to 4 inches long. The centre of the leaf is occupied by a large, irregular blotch of yellow, leaving a green margin varying from one-eighth of an inch to three-quarters of an inch long. This Holly, handsome as it is when in character, has a strong propensity to revert to the green state.

Kew.

W. J. BEAN.

(To be continued.)

## THE FLOWER GARDEN.

## CLASSIFICATION OF SWEET PEAS.

**M**R. ROBERT SYDENHAM'S letter and friendly criticism of my classification of Sweet Peas in THE GARDEN of the 6th inst. has interested me much. Though I cannot pretend to such an intimate knowledge of the merits or otherwise of every known variety of Sweet Pea as Mr. Sydenham possesses, still, like him, I have made a special study of the flower, and have grown the leading named sorts for the past eleven years, and I am gratified to learn that a few at least of my classes are in agreement with his ideas. From my classification enclosed you will see that Dorothy Eckford comes first in the class for whites. Sadie Burpee I put before Blanche Burpee, as with me it is a stronger grower and less affected by rough weather than the latter. Emily Henderson was added, as I explained in the notes sent together with the classification to the secretary of the National Sweet Pea Society last April, "in spite of the objectionable notch in the standard, because it is such a bold flower and strong grower."

I cannot agree with Mr. Sydenham when he says we want no more than three of any one shade of colour, as I consider that every good variety should be included in a classification, especially if the varieties exhibited in a number of classes at the National Sweet Pea Society's show are to be selected from the classification list adopted by the society. Dorothy Eckford and Sadie Burpee would be an ideal pair to exhibit in the class for two whites, one having an upright and the other a hooded standard. Personally, I prefer the upright standards. Mont Blanc I am growing this season, and if it proves worthy it shall certainly be added to my list, perhaps before Emily Henderson. Dainty might be added to the blush class. I still maintain that Mrs. Fitzgerald is a cream-coloured flower. Our rich Cheshire cream is "more or less tinged with buff." Stella Morse I have not grown for some years, but think it might be included in this class. Of Lottie Hutchius I stated in my

explanatory notes: "It certainly is streaked slightly with pink, but the streaks are hardly noticeable, especially if it is grown in partial shade." "Most misleading" sounds rather a harsh term to apply to my yellow class. As Mr. Sydenham says, when "seen at a distance they would be more often called white than yellow." I quite agree with this, but for the purposes of a colour classification we study the flowers closely and not at a distance. The varieties under this heading are the nearest approach we have to a yellow Sweet Pea, and I think that, until we get one resembling in colour a Lent Lily or Tulipa sylvestris, my colour description may stand. Primrose or even pale primrose will not do; besides, I seem to have heard before now of a *yellow Primrose*.

Lady M. (not Mrs.) Ormsby Gore is very similar to, and perhaps hardly an improvement on, Queen Victoria, but for the reasons stated above I think it should be included in the class for yellows. In the pink class Prima Donna is a strong grower, and frequently has four flowers on a stem, but in point of colour has, I think, to give way to Lovely. I well remember some years ago, before Lovely was sent out, walking through Eckford's gardens at Wem, and coming to a row of this variety, when all the ladies of the party exclaimed in one breath, "That is lovely!" Ladies are much better judges of colour than most men, and if they were asked to choose between the two flowers I should not be surprised if nine out of ten selected Lovely as the prettier flower. If varieties of exactly the same shade of colour are wanted in the rose class, they would be Prince of Wales, Her Majesty, and Splendour. Mrs. Dugdale might go into the bicolors, but Lord Rosebery would be left out in the cold.

As regards size, Miss Willmott is superior to Lady Mary Currie, but, as I explained in my notes, the latter was put first in the bright rose class as representing the type. To quote again from my notes: "Many of the varieties under the heading 'Self' are not, strictly speaking, self colours, but when their general effect is a self colour I have classed them as such." This will be a sufficient reply to Mr. Sydenham's criticism of my orange class. If picked to pieces and analysed, Gorgeous will no doubt be found to be a bicolor, or even a tricolor, but the general effect is orange. How does Mr. Sydenham reconcile the inclusion of Royal Rose and Apple Blossom among his selfs with his criticism of my orange class? So great is the divergence of Mr. Sydenham's present classification from that of last year (which I enclose) that on close comparison I am almost tempted to think he has not hesitated to avail himself of several points from my list.

For an explanation of my blue class I must again refer to the notes: "Countess Cadogan is dark blue when it first comes out, but when fully expanded is much lighter in colour, and is not at its best until almost getting over. I have therefore included it in the light blues."

Unless the number of classes is to be increased indefinitely, I cannot see how Mrs. Walter Wright, Dorothy Tennant, and Admirable are to be separated. Perhaps a better name than mauve for this class would be lilac. Othello and Black Knight are so much alike that it seems to be of little consequence which comes first in the list. The former has a slight dusty appearance, reminding one of the bloom on a Grape; the latter has a metallic sheen, as though the bloom had been rubbed off. I prefer the flower with the bloom on.

Gorgeous, Lord Kenyon, and Calypso are mentioned by Mr. Sydenham under the heading of magenta. The first-named is evidently a mistake for George Gordon. When the prevailing colour of a flower is magenta I think it should be put in this class.

Duchess of Westminster certainly is a small, but, none the less, a pretty flower, and when arranged in a vase its ripe apricot effect is very striking. Mr. Sydenham says of this variety that it "sports so much." Sporting is defined as "any deviation from the usual form or colour of a plant or flower." Some Sweet Peas have never been properly fixed, and cannot be depended upon to come true from seed; of many kinds the flowers are apt to run and

become streaky in a cold and damp season; most kinds will occasionally revert or throw back; but of sporting in the strict sense of the term I have never known an instance. The old variety Bronze Prince (not to be confused with Bronze King) occasionally crops up. Last year it appeared among some plants of the Hon. Mrs. E. Kenyon.

I must take exception to the long colour descriptions in Mr. Sydenham's classification, e.g., deep rosy crimson, dark fiery crimson, cerise or dark salmon scarlet, &c. Colour descriptions should, in my opinion, be as clear and concise as possible.

As I have already remarked that, to my mind, ladies are better discriminators of colour than men, would it not be advantageous to get the opinions of those growers among them who like myself take an interest in Sweet Peas, and thereby settle the difficult question of colour classification?

*Aldersey Hall.* HUGH ALDERSEY.

### SCENTED-FOLIAGED GERANIUMS FOR THE SUMMER GARDEN.

THESE, when grown into specimen plants from 3 feet to 6 feet high, and plunged in the turf in groups on the lawn with a background of shrubs or trees, make a charming effect, and are sure to gain much admiration during the summer. The sweet perfume from their foliage, when gently stirred by the wind, is sure to be welcome to passers-by, and the freedom with which some of the sorts bloom is quite surprising. Cuttings struck early in August and grown on gently through the winter make very nice plants by the first week in June, and by that time should be in an 8½-inch pot, and a plant from 2 feet to 3 feet high, according to the variety. Some sorts make large plants quicker than others. Some of the fast-growing sorts will make plants 6 feet high and 3 feet through in less than three years; other sorts would take six years to attain that size. They grow freely in a mixture of three parts fibrous loam, one part leaf-mould, with a little coarse sand, bone-meal, and wood ashes added. Potted moderately firm, and well looked after with water during the summer, and, given occasional weak doses of guano and soot water, they will well repay for the trouble taken. A vinery at rest is a good place to keep them during winter, when large quantities of bright flowers may be cut from them, and, cut with a portion of the foliage, they are very useful for vases and table

decoration. When the plants are taken up to house for the winter, we drop early-flowering shrubs into the holes. Grown in pots for the purpose, these make a pretty spring display, and can be lifted out again when it is safe to return the Geraniums. *Sandhurst Lodge, Berks.* W. J. TOWNSEND.

## NOTES ON HARDY PLANTS

### PERPETUAL-FLOWERING PINKS.

WE asked Mr. Ladhams of the Shirley Nurseries, near Southampton, to tell us about the perpetual-flowering Pinks, and his answer is as follows: "My new race of this charming family is the result of many years' persistent hybridising, crossing, and selecting. At one time and another almost all the different species of *Dianthus* which promised anything have been used in the work, but of course, when once the desired object was attained, these were largely discontinued. The old Mule Pinks, having strong green leaves, have had a marked effect in creating vigour and freedom of growth, forming, as it were, a groundwork for further improvements. Mrs. Sinkins as a seed-bearer also was brought in later, giving size of bloom. The race as it is at present produces stouter flower-stems, freer growth, and more refined flowers than the older border Pinks. Quite the most recent of our introductions have, in addition, purer colours. The variety Florence would rival a Carnation in its exquisite form; Marion has very large flowers on strong spikes—as many as a dozen branching buds are found on each growth; Mrs. Moulard has a chaste, beautifully-formed flower of clear pink, with chocolate centre, and has often five or six flowers out at one time on a single spike; and Ethel is of neat, graceful habit, and has full, refined, non-bursting flowers of white, delicately marked with pale purple. A few others are also in commerce, and we are selecting and eliminating amongst many other seedlings of several years' proving. In cultivation we find that plants grown on stony land enriched with decayed manure are more perennial and the colours brighter. Of course, they are at a disadvantage during excessive drought, and, as a couple of acres are grown, we

cannot pretend to water them, but they recover this as soon as rain falls or the cool nights commence, and flower more abundantly for the rest they have taken. Layering as Carnations is the only really safe way of increasing stock. Of course, they need not be lifted as Carnations are for the sake of protection, this being entirely unnecessary."

### SAXIFRAGA GRISEBACHI.

IN the course of the interesting "Notes from Worcestershire," by Mr. Arthur R. Goodwin, in *THE GARDEN* of February 13, a reference is made to this Saxifrage, and a remark made that it has succumbed to damp. I hope that no one will assume that this Saxifrage is unusually liable to damp off under ordinary circumstances. Mr. Goodwin must have been unusually unfortunate, or have experienced some untoward circumstances to account for his loss. In our corner of south-east Kirkcubrightshire we had about 50 inches of rain during 1903, and neither the end of the year nor the beginning of 1904 has shown any inclination to favour us with less rain than we had before. Under these conditions *Saxifraga Grisebachi* has done remarkably well in the open, on a rockery facing south-west, in light, sandy peat, but quite unprotected from the weather. It is still in bud, I believe, as it was when I left, but as I am from home I have not seen my plants for more than a week. Possibly Mr. Goodwin has his in a frame, where there is much more danger of such plants succumbing from damp. All through the winter *S. Grisebachi* has been very pretty, and greatly admired.

*Dumfries.*

S. ARNOTT.

### LITHOSPERMUM GRAMINIFOLIUM.

THE plant of *Lithospermum graminifolium* represented in the photograph is growing on a rockwork facing nearly south, with high Elm trees 8 yards or 10 yards off on the east side. The rockwork is steep, some 6 feet high, and a very large overhanging stone on the north side keeps off cold rain. The soil was made carefully of loam, peat, leaf-mould, and small gravel in something like equal proportions. The plant was put in not more than five years ago, and was an ordinary small nurseryman's plant. The size of the plant is nearly 3 feet long by 2 feet to 2½ feet wide. At the present time (February 12) it does not look so well as this time last year. No doubt the wet season has been very trying to it. I have a smaller plant near it that looks well and healthy. I bought the latter as intermedium, but it seems identical with the larger one, which came from the Guildford Hardy Plant Nursery.

HERBERT GREEN.

### EARLY PLANTING OF TUFTED PANSIES.

THERE is a tendency in many gardens to defer the planting of Tufted Pansies until the best time for this is past. In many gardens the Tufted Pansies are not planted until after the spring-flowering bulbs are over. As this period of the spring is not infrequently succeeded by spells of warm weather, the newly-planted tufts have little chance of getting well established before the warmer summer weather is experienced. Under such conditions it is most unreasonable to expect satisfactory results. Early planting is almost essential to success, and where this rule is seldom observed the grower has good cause for complaint.

When the weather has been suitable, and the soil also in a workable condition, I have never hesitated to plant out in their flowering quarters little tufts in February. These tufts have not been coddled in frames—a practice with the Tufted Pansy several growers now regard as quite unnecessary



LITHOSPERMUM GRAMINIFOLIUM IN A MAIDSTONE GARDEN (THE GODLANDS, TOVIR).

—but are lifted from raised propagating beds in the open, with mats of roots and numerous shoots in embryo. These plants bear the shift with comparative indifference, and even though the weather be rough or frosty immediately subsequent to the planting they come through the ordeal in excellent condition. Plants raised in cold frames, even supposing they were hardened off beforehand, are not so good for the earliest planting as are those raised in the open, as already described. The Tufted Pansies are among the hardiest of our hardy flowering plants, and after some years of careful observation I am convinced that the hardier method of raising these plants is the better one. In any case, it is better to have all planting done by the middle of March, as this practice invariably results in obtaining an early summer display, which increases as the tufts continue to develop. One hears of failure occasionally, but when this is enquired into late planting is generally responsible for it. With some of the showy French and Belgian Pansies failure invariably takes place in the later days of June and July, when the warm weather begins to test their constitution. It is to the Tufted Pansies, however, that we should look for a long, continuous, and bright display, and the sooner they are planted the better. D. B. CRANE.

### COPTIS ORIENTALIS.

THE genus to which this plant belongs is closely related to the well-known Hellebores, differing in having membranous capsules on a foot-stalk, and in the calyx falling off soon after expansion, while the members of the latter genus have leathery and sessile capsules, the sepals also remaining on till the seeds are nearly ripe. They are interesting, shade-loving little plants, requiring a moist position in peaty soil. Of modest proportions, the genus consists of only five species, all of which, with the exception of the American Gold Thread (*C. trifolia*), flower in the early spring. *C. orientalis* has much-divided, nearly evergreen leaves and white flowers on stems a few inches high. It is a native of Japan, and has been in cultivation a considerable time, and, although easy to increase by means of root division, it is rarely met with outside botanic gardens. It is never likely to be a popular plant, and only finds a place in the gardens of lovers of novelties. W. IRVING.

### AN HOUR WITH THE HOLLYHOCK.

(Continued from page 141.)

WITH the Hollyhock almost a new field for speculation and experiment lies open before us; certainly this is no bare, trodden ground, the grass is scarcely bent beneath our feet; the few alone have trampled on it. Why should we not unite in one flower the desired qualities now scattered over half a dozen? If we are seeking form and fulness, we shall find them in Beauty of Cheshunt and Honourable Mrs. Ashley. By bringing these in contact with such flowers as *Aurantia superba*, Black Prince, and Napoleon, may we not possibly raise varieties which shall combine the shape and fulness of the former with the colours or habit of the latter? If we wish to obtain flowers of any particular colour, of increased size or substance, the most probable means of so doing is to unite that colour with a flower conspicuous for those qualities.

Why should we not have the colour of Scarlet King in combination with the shape, size, and habit of Beauty of Cheshunt, or a Black Prince like *Pourpre de Tyre*? We have yet no flower of a golden yellow; none even an approach to orange. And although we do not aspire to the prevision of the prophet or seer, we venture to foretell the speedy acquirement of striped and laced flowers equal in beauty to the finest

Pink or Carnation. Then as to substance, there is room for improvement; indeed, so many points crowd upon the mind that we fear we may become chargeable with partiality in thus particularising. But as we cannot pursue this argument further we may just briefly say, that we certainly must not consider our work done until we realise in every colour the form of our ideal standard.

Let us suppose, then, that we are about to plant a seminary, and have decided that it shall contain twelve varieties; how shall we select them? The following have been chosen with the view to embrace every important feature of the flower in the greatest perfection:

- |                            |                             |
|----------------------------|-----------------------------|
| 1. Beauty of Cheshunt.*    | 7. Metropolitan.            |
| 2. Black Prince, improved. | 8. <i>Pourpre de Tyre</i> . |
| 3. Fireball.               | 9. Professor Dick.          |
| 4. Glory of Cheshunt.      | 10. Walden Rival.           |
| 5. Honourable Mrs. Ashley  | 11. White Globe.            |
| 6. Lizzy.                  | 12. Sidonia.                |

\* For the characters of these varieties, see descriptive lists.

With these materials and a camel-hair pencil we are prepared for crossing. The best time for carrying on this work is the morning, as soon as the dew passes from the flowers. There are, perhaps, no varieties, however double, which will not yield stamens and styles to a close inspection.

It is only necessary to collect the pollen from the stamens by passing the brush lightly over them and to convey it to the flower required to produce seed, drawing a muslin bag over the flower after the operation. Such kinds as are not very double and seed freely may be grown in a rich soil, and the spikes may be shortened, leaving, after thinning, about twelve flowers on each. Never allow a bad or imperfect flower to remain for seed; invariably pull off such immediately that it appears. The very double kinds may be grown in a poor soil. The spikes should not be shortened, but the flowers of all will require a plentiful thinning. As the flowers at the lower end of the stem die off the petals should be drawn from the calyx to prevent moisture from gathering round the seed-vessels, which would injure, if not destroy, the seed. Hand-picking is, perhaps, the best way of accomplishing this, and if the petals are ready to be separated they will yield to a slight pull with the finger and thumb. Crossing may be repeated day by day, as the flowers expand, until we reach the top of the stem. The plants should be watered freely during the formation of the seeds, and as the latter ripen (the shrivelling of the calyx is a tolerably correct test of fitness) they may be gathered and tied in coarse muslin bags, separately or not as the cultivator may please, and placed in a dry, airy, sunny situation. With such as flower late the spikes may be cut from the plants and placed upright in a greenhouse, or under a south wall, where the seeds will ripen better than if detached from the stem. The seeds first gathered may be sown immediately as there will be time for them to germinate and become strong before the commencement of winter. The bulk of the seed, however, cannot be sown to advantage before the spring, and early in February is perhaps the best time if flowers are required the same season. In both cases we would sow thinly in pots, placing them in a pit or house where they would command a gentle bottom-heat; and so soon as four or six leaves are formed the seedlings should be transplanted, four round a 4-inch pot. Those raised in autumn may remain in a cold frame during winter, or if in a greenhouse they should be placed close to the glass, exposed to air and light. Watch closely for slugs and remove any leaves that may decay. In April they may be transferred to the spot where intended to flower, and to do them justice they should not

be planted closer than 2 feet from row to row and 1 foot from plant to plant; they should be watered and hoed frequently during the summer, and tying up can scarcely be dispensed with. They will flower in September and October of the same year, and as any show themselves of inferior merit they should be destroyed, which will give the remaining ones more room for development. Some varieties come true from seed, or so nearly so that it would require the most practised eye to distinguish them; others come true in colour, but vary much in degree of fulness and general quality; while others again vary both in colour and quality—maroon flowers producing white, yellow, red, and the like. The seed may also be sown out of doors during any of the summer months, but the flowering will not then take place until the summer and autumn of the following year.

W. PAUL, F.L.S.

(To be continued.)

## TREES AND SHRUBS.

### HIPPOPHÆ RHAMNOIDES AS A TREE.

IN THE GARDEN for October 31 last appeared the following note with reference to the tree shown in the accompanying illustration. The leaves have now fallen, but the berries still remain, although through frost they have lost nearly all their bright yellow colour. The tree, which is quite twenty years old, was raised from seed and grown into tree form by training up a leader, and by cutting away the lower branches. The girth of the stem at 18 inches from the ground is 16½ inches. The first branches originate 4½ feet from the ground. The tree is 12½ feet through, and 15 feet high. Close by there is a tree of *H. salicifolia* nearly 30 feet high, with a girth of 49 inches. This, however, has never borne berries at Kew, although a smaller tree of the same species did so last year for the first time. The following is the note referred to:

Near the large temperate house in the Royal Gardens, Kew, there is a specimen of the Sea Buckthorn (*Hippophaë rhamnoides*) growing at the end of a shrubbery border that may rightly be termed a tree. It is of symmetrical, pyramidal shape, and from 12 feet to 15 feet high. At the present time it is as attractive as anything in the Kew collections. The pretty grey leaves alone assure the *Hippophaë* a pleasing appearance, but with the bright orange-coloured berries clustering thickly about the shoots as they do now the tree referred to makes a charming picture. Grey leaves and orange berries intermingle from top to base, for this untoward year has, curiously enough, been favourable to the Sea Buckthorn so far as the production of fruit is concerned. The stem of this Tree *Hippophaë* is about 7 inches in diameter, and the branches reach almost to the ground. As a tree it is unique. The value of *Hippophaë rhamnoides* as a bush is well known, and now its value in the garden can be fully appreciated. There are several clumps at Kew by the lakeside and elsewhere that are aglow with clusters of the brilliant orange-coloured fruits, and they make rare bits of colour in the garden landscape, more than ever appreciated now that sombre tints predominate in border and shrubbery. Because the Sea Buckthorn is a seaside plant many have the idea that it will not grow inland. Such a fallacy should at once be dispelled, and a visit to Kew would be an excellent means to





THE SEA BUCKTHORN AS A TREE IN THE ROYAL GARDENS, KEW.

this end. It does not even require to be near water at all, as is evidenced by the tree specimen just mentioned, which is growing in ordinary soil, far away from lake or pond. Berried shrubs are of great value to the gardener, and they are not taken advantage of to the extent they might be.

H. T.

**ILEX CRENATA.**

IN reference to the recent notes on this plant in THE GARDEN, I may say that this Holly is not properly appreciated in this country, probably on account of its slow growth. One use, however, which it could be put to, and for which its habit of growth admirably suits it, is in the formation of low hedges on terraces, &c., where something that is neat and compact is required. It is one of the best shrubs to transplant, and is not at all particular in the matter of soil. Given an initial dressing of manure, it will always be found able to take care of itself afterwards. Besides *I. crenata* the following evergreen species of *Ilex* are worthy of cultivation:—

*I. cornuta*.—This is a native of China, and forms a small shrub about 6 feet high and nearly as much in diameter. The leaves are about 3 inches in length, of a bright, shining green, and stiff in texture. They are each armed with seven or eight stout spines, about one-half of which point upwards and the other downwards. It is perfectly hardy, and keeps in good condition in partial shade. It bears small, dull red berries,

which are not very conspicuous.

*I. dipyrrena* (the Himalayan Holly).—This is a plant that grows to about the same size as our English Holly, which it somewhat resembles. The leaves are about the same size as those of the common Holly, but with fewer spines, and of a duller and paler colour.

*I. integra*.—This is a native of China and Japan, and is more commonly met with under the name of *Othera japonica*. It is not very hardy, but where it will succeed it is worthy of a place, as it makes a handsome evergreen. The leaves are leathery in texture, spineless, about 3 inches long, dark shining green above and lighter beneath.

*I. latifolia*.—This is of about the same degree of hardiness as the preceding, but where it will succeed it makes a distinct-looking large shrub or small tree. The leaves are from 4 inches to 6 inches in length by about 2 inches in width, rather stiff, of a dark, shining green above and lighter, almost glaucous, beneath. The edges are armed with sharp teeth. This plant keeps a better colour and grows more freely on light, dry ground than in a damper situation. The berries are small and of a dull red colour.

All these Hollies can be propagated by seeds, cuttings, or layers. In default of the first the last is the best method of increasing them.

Bagshot, Surrey.

J. CLARK.

[We draw the attention of our readers to the excellent monograph of Hollies by Mr. Bean now appearing in THE GARDEN.—ED.]

**SHADE TREES.**

(Continued from page 133.)

**TULIP TREE.**

THE Tulip Tree is too large except for the widest avenues and park borders, where there is a quantity of rich deep soil and abundance of room. It is likewise difficult to transplant, the branches are very brittle, and the leaves are continually dropping throughout the season. It is, however, practically free from enemies.

**BLACK LOCUST.**

The Black Locust is a rapid grower, hardy, easily propagated and transplanted, and does well in poor soil. It is successfully cultivated in Paris, where the top is kept small and spherical, and the branches thickly clustered. Its hard and durable wood is beginning to be used in Paris for paving the streets. On the other hand, the tree is scraggly and angular in form, its branches brittle, its foliage short-lived, its pods unsightly, and its roots badly given to sprouting. The locust-borer often kills the Black Locust, as well as the Honey Locust, and has been known to spread from these trees to certain species of Oaks.

**WILLOW.**

The Weeping Willow is the only species used on streets, and its occurrence is rare. It grows rapidly, and when perfect has a fine appearance; but the wood is tender and is often attacked by fungi, while the tussock moth and other leaf-eating insects frequently destroy its foliage. The White Willow is excellent for windbreaks and for planting along the banks of streams, railroads, and other embankments. Fine rows of this tree may be seen in Ithaca along the streams that descend from the surrounding gorges, and are subject to overflow from the melting of ice. It is also used along the Thames in the western part of London to prevent disintegration of the banks during the ebb and flow of the tide.

**TREES RECOMMENDED FOR GENERAL STREET PLANTING.**

- Oak, Red (*Quercus rubra* L.)
- „ Pin ( „ *palustris* Du Roi.)
- „ Scarlet ( „ *coccinea* Wang.)
- „ Black ( „ *velutina* Lam.)
- „ Single ( „ *imbricaria* Michx.)
- „ Willow ( „ *Phellos* L.)
- Sycamore, Oriental (*Platanus orientalis* L.)
- „ American ( „ *occidentalis* L.)

- Ailanthus (*Ailanthus glandulosa* Desf.)
- Maple, Norway (*Acer platanoides* L.)

**TREES RECOMMENDED FOR FURTHER TRIAL.**

- Ginkgo (*Ginkgo biloba* L.)
- Ash, American (*Fraxinus americana* L.)
- Hackberry (*Celtis occidentalis* L.)
- Sweet Gum (*Liquidambar styraciflua* L.)
- Kentucky Coffee Tree (*Gymnocladus dioica* (L.) Koch.)

**TREES WHOSE CULTIVATION ON THE STREETS OF LARGE CITIES IS ATTENDED WITH CONSIDERABLE RISK.\***

- Elm, American (*Ulmus americana* L.)
- Maple, Silver (*Acer saccharinum* L.)
- Horse Chestnut (*Æsculus hippocastanum* L.)
- Locust (*Gleditschia triacanthos* L.)
- Maple, Sugar (*Acer saccharinum* Marsh.)
- Linden, American (*Tilia americana* L.)
- Tulip Tree (*Liriodendron tulipifera* L.)
- Locust, Black (*Robinia pseudacacia* L.)
- Willow, Weeping (*Salix babylonica* L.)

W. A. MURRILL, in *Bulletin of Cornell University*.

**THE ROSE GARDEN.**

**NEW ROSES FOR 1903-4.**

**A** NNE MARIE SOUPERT (Hybrid Tea).—Very vigorous; fine deep green foliage; elongated bud; very large flower, with strong stalk, very full, shining red-lake colour; very free, and sweetly scented.

*Georges Laing Paul* (Hybrid Tea).—Very vigorous; elongated bud of good form; very large and full flower, with strong stem; colour a deep shining crimson-red, darker than Anne Marie Soupert; free, and very fragrant. A select variety of great value for forcing and for cut bloom. The result of a cross between Mme. Caroline Testout and Fisher Holmes.

*Olympiada* (Hybrid Tea).—Vigorous; good foliage; well-formed bud; large, full flower on long and strong stem; outer petals broad, inner ones narrower; a beautiful pink satio colour; one of the most floriferous varieties. Good for beds and forcing. (Mme. Pierre Oger × Belle Siebrecht.)

*Souvenir de Marie Zozaya* (Hybrid Tea).—Vigorous; good foliage; long bud of exquisite shape, coral-red in colour, opens freely; expanded flower of extraordinary size, full, and carried very gracefully upon a long and strong stem, Camellia shaped; the petals large and stiff, coral-red outside, silvery pink within, brighter in the centre. One of the largest of the Hybrid Teas. (Souvenir of Wootton × Belle Siebrecht.)

\* Many of these trees thrive well in villages and towns. After reading the previous discussion, several excellent trees might be selected from this list for a given locality.

*William Notting* (Hybrid Tea).—Vigorous; fine deep green leaves; elongated bud, on long and strong stem; large and full flower; outside of petals coral-red, inside salmon colour, colour in the centre resembling Mme. Abel Chatenay. A variety of quite first rank among Hybrid Teas for cutting, forcing, and grouping; fragrant and floriferous. (Abel Chatenay × Antoine Rivoire.) All the above varieties were raised by MM. Soupert and Notting, Luxembourg.

♀ *Mlle. Andrea Dourthe*.—Deep green foliage conical buds; large, full flowers of satiny pink, sometimes striped with white; under side of petals lilac; flowers continually and freely. Sport from Triomphe de la Duchère. Raised by M. J. B. Chauvry, Bordeaux.

*Mme. Victor Giraud* (Tea).—Very vigorous and free; petals white, tipped with salmon, copper-yellow towards base. Raised by M. Lapresle, Tarare (Rhône).

*Anna Jung* (Tea).—Very large, half full flower; colour bright pink, lightly shaded salmon, the centre copper coloured; elongated bud, supported by strong stalk; forms a strong bush; very free. (Marie van Houtte × General Schablikine.)

*Comtesse Emmeline de Guigné* (Tea).—Very large flower of perfect form, fragrant; large, thick petals, slightly recurving, bright carmine-red, tinted with crimson, centre copper; beautiful long bud, carmine and copper coloured; very vigorous and free. (Papa Gontier × Comtesse Festetics-Hamilton.)

*Generève Gaillardet* (Tea).—Large, half full, erect, elegant flower of bright Chinese pink colour, tinged with amber; firm petals; long, well-formed bud. (Comtesse de Lèusse × amabilis.)

*Jeanne Proudfoot* (Tea).—Large, half full flower, with thick petals; perfect form; colour pale salmon-pink; very beautiful bud. (Paul Nabonnand × Archiduc Joseph.)

*Alice Hamilton* (Bengal Rose).—Very large, half open, well-shaped flower; large petals; sweet perfume; colour bright velvety crimson-red; handsome deep green foliage. (Bengale Nabonnand × Bengal ordinary Rose.) The five preceding varieties were raised by MM. P. and C. Nabonnand, Golfe-Juan, Alpes-Maritimes.

*Mme. Alvarez del Campo* (Rugosa).—Vigorous plant, with handsome foliage and strong shoots, bearing large buds of perfect form; very big, odorous flower, flesh-pink, slightly tinted with salmon, reminding one of Pink Rover. The colour is unique among Rugosa hybrids. Fruits few but large. (Gloire de Dijon × Rugosa.)

*Mme. Lucien Villeminot* (Rugosa Hybrid).—Large, almost full flower. This plant, which is fairly vigorous, somewhat resembles Conrad Ferdinand Meyer, of which it is a product, but from which it clearly differs in the flowers, which are of a paler pink. (Conrad Ferdinand Meyer × Belle Poitevine.)

*Amélie Gravereaux* (Rugosa Hybrid).—Large, almost full flowers of deep purple-red, showing clearly the characteristics of Eugène Furst, one of the parents. This is another unique colour among



THE IRIS GARDEN AT HORIKIRI, JAPAN.

the Rugosas. (Rosa gallica × Eugène Furst × Rugosa.)

*Rose à parfum de l'Hay* (Rugosa Hybrid).—This variety, thanks to its exquisite perfume, is destined to replace in the manufacture of essence of Roses the species now cultivated for the purpose. The plant is vigorous, and easily propagated and grown. Its foliage recalls that of Rosa gallica. The flower is double, globular, slightly flattened, and of a beautiful carmine cherry-red, with the edges of the petals white. These four Rugosa hybrids were raised at l'Hay by M. Gravereaux, and are sent out by M. Cochet-Cochet, Coubert, Seine-et-Marne.

*Empereur Nicolas* (Tea).—Vigorous; very large, full flowers, bright red, always in flower. This variety, from its colour and its splendid buds, will always be a favourite for forcing.

*Dona Sol Stuart* (Tea).—Very vigorous; large, full, well-shaped white flowers, lightly tinged with yellow, passing into pure white when fully open.

*Duchesse d'Albe* (Tea).—Very vigorous; large, full, globular flowers, finely coloured, changing, according to the season, from clear red shading to carmine-pink and coppery red. Very free; a charming variety.

*Jacques Fould*.—Vigorous; large, full, well-shaped pink flowers, tinged with copper.

*Mme. Achille Fould*.—Very vigorous; very large, globular flowers, yellow, tinted with bright carmine-pink, and shaded with coppery red; sometimes altogether clear salmon-pink.

*Mme. Louis Lévêque* (Climbing Moss Rose).—The most beautiful Moss Rose yet raised; it has the size and colour of Captain Christy, and is extremely mossy; a variety of the first order; a Rose that has a great future for forcing. The six preceding varieties have been raised by MM. Lévêque et fils, Ivry-sur-Seine, near Paris.

*Mlle. Alice Rousseau* (Climbing Polyantha).—Vigorous; the bud is pink, and on opening becomes rose, tinged with carmine.

*L'Ami E. Daumont* (Climber).—Very vigorous; large, conical buds; flower scarlet-red colour, tinged with pink; the outside of the petals is purple. These two varieties have been raised by M. Rose Vilin, Grisy-Suisne, Seine-et-Marne.

*Mme. Driout* (Reine Marie Henriette panachée). This is a sport from Reine Marie Henriette, with flowers of tender pink, striped, spotted, and variegated with bright red. The plant has all the qualities of the parent; it is an excellent addition

to the list of hardy climbers. Raised by M. L. Bolut, Chaumont, Haute-Marne.

*Mme. Marie Mularin* (Tea).—Vigorous; very dwarf; medium-sized flower, always opening well, of a beautiful deep yellow, taking, especially in autumn, a violet tint; very free. A very good variety. Raised by M. Antoine Godard, Thoisy (Ain).—*Les Roses*.

#### SWEET BRIARS (HYBRID).

THESE pretty Roses are a delightful change from the usual run of varieties used for decorative arches, and their early flowering should commend them to planters who are in search of Roses of this description. Their

lusty vigour seems to demand something better than the restricted form of a bush, though in this form when isolated there is no need to restrict the growths. But given a tolerably high arch on which their shoots may be supported, the necessary bending induces a very free blossoming quite gorgeous for the short time they remain in flower. I think much could be done to make Rose arches more attractive if an autumn-flowering kind were planted with the summer-flowering variety, as unquestionably the flowerless arches are not very inviting at a time of year when one expects some bloom, even though they leave a pleasant remembrance of their early summer glory. With this object in view I would suggest that the arches be made somewhat wider than usual, although not too wide to make them appear ponderous. An intelligent use of the pruning-knife in summer, autumn, and spring will render such arches quite a feature of one's garden.

P.

#### GARDENS IN JAPAN.

BACON tells us that "God Almighty first planted a garden . . . and indeed it is the purest of all human pleasures." And he follows up this goodly opening by giving a prescription for a garden which was, apparently, to fulfil his ideal of Eden. Not less than thirty acres must be its measurement, and the lordly domain, divided geometrically into so many alleys, so many terraces, so many plots, was to be decorated with much "carpenter's work," with "broad plates of round coloured glass, gilt, for the sun to play upon," with "pyramids of green," and "over every arch a little turret with a belly, enough to receive a cage of birds."

While the courtly philosopher of the West was rejoicing in his dream of costly ugliness, the gardeners of the East had laid down one maxim for their own guidance—the garden must be its owner's world. Here is his bit of beauty's kingdom, whose every stone and shrub and rill must set him dreaming of the mountain and the forest and the sea; here, between the single Pine on the lakelet's edge and the

Maple beside the "moonshade stone" on the hillock's top lies a world of delicate suggestion, fancy's playground, an empire of romance.

The Japanese, who seems somewhat callous to publicity in the more prosaic matters of life, is jealous of the privacy of his garden. It is the place for rest of mind as well as rest of body; here he meditates, looks forward to his peaceful age, or back on the days of his youth. Here he effaces his own personality to rejoice in an opening bud, or mourn over some short-lived loveliness. All the associations of the garden must be friendly, either calm or inspiring, according to the owner's age and character. In the house many concessions may be made to the claims of material life; in the garden, thought is all; and when the Japanese thinks for beauty's sake, the result is an unerring sense of proportion in art, which constrains him to reject the most beautiful things if they are superfluous to the decoration of his home or foreign to its character.

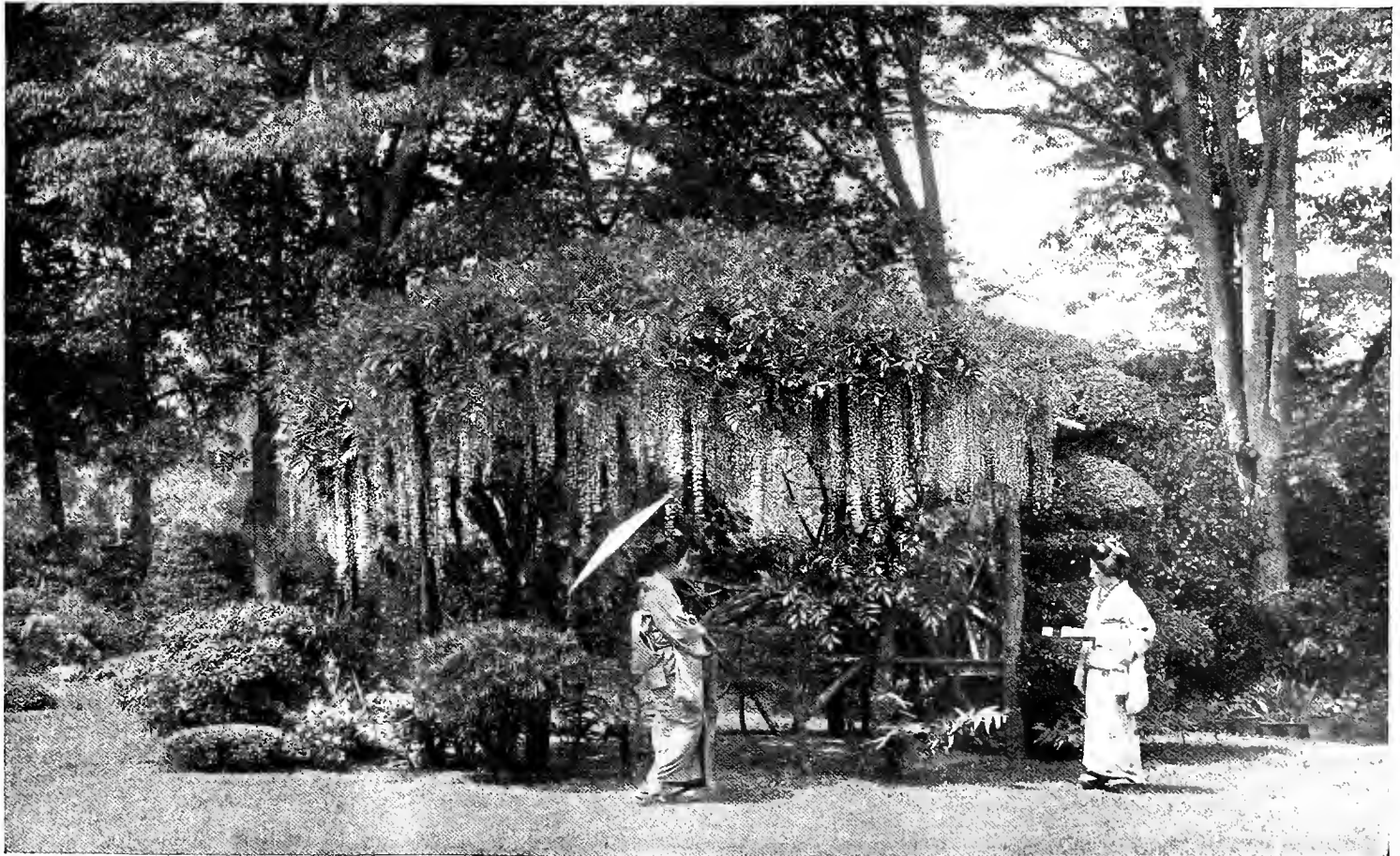
The character or leading idea of the garden is the first thing to be considered by the landscape gardener in Japan. Here in Europe such a man would be much puzzled at receiving orders to lay out your pleasure so as to express gentleness, fidelity, hope, dignified seclusion, or self-abnegation. There is a garden attached to an abbot's palace in Tokuwamoni where the theme carried out is named "The Power of Divine Truth." To say that even in the hands of an expert these fundamental and complicated ideas could be made comprehensible to all classes of men in Japan would be untrue; they rely in great measure on national tradition, on historical, religious, and poetical associations; but the cultivated

Japanese reads them easily, and would as sharply criticise any incongruity as he would condemn any tendency to display. The avoidance of these two capital faults may be learnt by a little study of the Japanese methods. Their theory is based on Nature's own rules for her pictures; she does not give us flowers from twenty climates blooming together on an acre of ground; she does not plant the Lotus under the waterfall, or the Rice Lily on the arid hill; she leads us from grace to grace by kind degrees, and her beauties console, delight, but never tire us, because the secret of all perfection lies in gradation and harmony.

Sheets of water, small or large, constitute a feature of every garden where wealth gives the power to place them. If it be impossible to have a lake, then a tiny pond, or a rivulet, making a fall of spray, will keep the place cool and refresh the eye. So necessary, in a Japanese gardener's opinion, is the sense of space created by water that, where it cannot be had, he reminds you of it by making, at the foot of your hill perhaps, a little depression where water can lie, and filling it with small white stones that catch the light and wear an illusory gleam, like the surface of a pond. Along the edges he piles larger stones, high and rough on one side, and gently shelving on the opposite bank; then a young Pine near the stones will speak of the *Hama matsu*, the Pine of the sea. Such a device has been resorted to in Prince Horita's private garden at Yokohama, and the illusion is carried still further by the meandering stream which comes to feed the pond, intersecting the footpath of broad stones, so that a still broader flag must be laid across it as a bridge. Flat stones

are of great importance in a Japanese garden. They traverse the grass without cutting it, and, where laid in the ungrassed soil, make a good contrast to its deep brown, and give an impression of care. In large gardens their course will probably lead you to the most admired point of view or the finest group of shrubs. At the foot of a hill they will break into rocky steps, bordered on either side by hardy plants such as love the mountains. When the summit is reached, the guiding flags again appear, to bring you to the tiny rest-house or the sacred Pine. In many Japanese gardens no turf is used, and the open spaces are covered with a fine beaten earth, kept cool and dark by constant sprinkling. In the periodical deluges of rain which visit Japan, the stepping-stones are useful in the extreme. They are sometimes placed in sequences of threes or fives, then broken by an islet of small stones laid close together. Beginning as a rule near the house, and starting from the broad slab just below the verandah step (called the "removing-of-boots stone"), they curve away to the different parts of the garden, their course and sequence apparently the result of chance, in reality directed by the most minute considerations of beauty and convenience.

After the stepping-stones come the ornamental stones of the garden, of which Japanese catalogues give an immense number. Their choice must be regulated by the natural formation and character of the ground, but they are estimated as so essential that some authorities call them the framework of the garden, and rank the trees and shrubs as their accessories or supports. So the stones are put in place first, great care being taken that their size shall



A WISTARIA BOWER IN JAPAN.

not dwarf a small garden, or be swallowed up in a big one. Once in a gardener's hands they become to him the rocks and boulders of a natural landscape; the rounded masses of shrubs so constantly placed near them represent hills, and are made to roll up one behind the other to the foot of the great stones, just as the uplands roll to the base of the towering peaks and precipices of O Tome Tuge or Miogi San. The group of upright stones in the central background of Prince Horita's garden forcibly recalls a well-known point on the Miogi San, or Maiden Pass. It is difficult to be brief where so much fresh and interesting material asks to be handled; but one who knew his subject lovingly and well summed up the art of Japanese gardening in a few true words: "To let the eye, wherever it wanders, rest on something beautiful; not to ignore the smallest of Nature's works, and to seek to obtain from everything something to add to the day's delight."

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### MAPLE SUGAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Noticing the interesting picture of the Sugar Maple in your issue of the 23rd ult., I observe A. C. Bartlett's comment on Maple sugar, which is quite misleading. He says that "formerly the tapping of the trees in spring was an important undertaking," and that, although considered to be quite equal to cane sugar, "it but rarely found its way into commerce." Maple sugar cannot be compared with cane sugar, because its place in domestic economy is entirely distinct, but it is of commercial importance in a number of northern States and in Canada. In 1899 Vermont produced 4,779,870 lb. of Maple sugar, valued at \$64,132 dols., and 160,918 gallons of Maple syrup, worth \$134,821 dols. New York produced 3,623,540 lb. of this sugar, value 307,184 dols., and 413,159 gallons of syrup, value 323,996 dols.; Ohio, 613,990 lb. of sugar, worth 48,736 dols., and 923,519 gallons of syrup, worth 616,490 dols.; Pennsylvania, 1,429,540 lb. of sugar, worth 115,910 dols., and 160,297 gallons of syrup, worth 123,863 dols.

These represent the chief producing states, but other states supply the product in lesser volume. To the northern farmer a good "sugar bush," as the Maple grove is termed, is a valuable asset. Before the enactment of stricter pure food laws this product was much adulterated or imitated, a syrup of cane sugar often being flavoured with Maple chips and other materials, and then put up in attractive packages labelled as "Pure Vermont Maple syrup."

This syrup is not so heavy in body as ordinary molasses or treacle, but it is very sweet, not cloying, and possessed of a flavour unlike anything else. It is the only righteous accompaniment of that great American institution, the Buckwheat cake, and every "quick lunch" restaurant all over the country invariably serves a little pitcher of this syrup with every order of griddle cakes. It also blends well with any preparation of Indian meal. The sugar is mainly used in confections. In its simplest form, that of the syrup boiled down until it sugars, it is the same colour as old-fashioned brown sugar, hard and solid, moulded into little fluted cakes or large pound bricks. It is delicious, and one of the most wholesome sweets a child may eat. Enriched by other materials, the confectioners use it as a basis for many bonbons. For domestic use the sugar is often grated fine, and thus used on hot cakes like the syrup. Thus grated and stirred into whipped cream, or white of egg beaten to a froth, it is an excellent pudding sauce. It forms a basis for icings, and is used in various

cakes. A rich layer cake, with an icing of Maple sugar between the layers, masked with the same icing, and decorated with halves of walnuts, is worth trying. Maple sugar is also used in ices and other frozen desserts.

Maple sugar making begins in late winter or early spring, just as soon as sap begins to run. It ends with the departure of frost, as the sap does not sugar well or possess the right flavour when the nights begin to grow warm, and the sap then ceases to run. In many localities the work is at its highest activity while snow is on the ground. A sudden and prolonged warm spell in the height of the season means disaster to the industry. Last spring we had warm spring weather in February and March, with a killing frost in May, and sugar makers suffered heavy loss, especially in Ohio. One correspondent in Geauga County, Ohio, stated that the failure of the Maple crop was as great a calamity to his community as the failure of a trusted savings bank.

The elegant habit and stately growth of the Sugar Maple makes it a favourite shade tree here. No Maple sugar is now made in my locality, though it is produced to a limited extent in New Jersey, and was one of my juvenile diversions in a small way. Trees are tapped year after year without detriment when the work is carefully done.

EMILY TAPLIN ROYLE.

Maywood, N.J., February 4.

### WINTER PRUNING OF CURRANT BUSHES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—If these trees are thinned out in the summer there is much less pruning to do at this season. With regard to the Black Currant none at all is required, as the pruning is much better done when the fruits are gathered. I think the trees give a much better return when the thinning out is done at the season named, as the exposure given to the fruit-buds, which are then less crowded, is beneficial. Another matter often overlooked in winter pruning is that both Red and White Currants are spurred in closely, and as the trees get old they are inclined to weaken. This can be avoided by leaving new strong shoots at the base, and, when these are large enough, the old wood may be removed. It is surprising how much better the trees bear when new wood is worked in by degrees and the older is removed. Though there must be no crowding, the new wood will give much finer bunches. Trees that have outgrown their limits and are at all weak may be much improved by reducing and working in new wood. It may take two or three years, but such trees, in addition to their appearance, well repay by the improved quality of the fruits. There must be no overcrowding at the base.

W. S. M.

## THE FRUIT GARDEN.

### STRAWBERRY FORCING—SOME WIDESPREAD ERRORS.

ONE of the most important fruit crops under glass at this time of the year is that of the Strawberry, and I should like to point out one or two errors in practice which are wide-spread and responsible for not a little of the failure to force Strawberries successfully. Two of the most important mistakes are made with the idea of saving time, or, in other words, of hastening the production of ripe fruit. It is, however, a fallacy to suppose that wrong methods will achieve that object; not only will no time be saved, but the results will be disappointing. In the first place, it is impossible successfully to force Strawberry plants into bloom before they are well rooted. If it is possible, before bringing them into the forcing house, the pots should be plunged for a few weeks in a bed of leaves made up in a pit or frame, so as to encourage root growth. Keep the frame quite cool, so as not to excite leaf-growth at all. When

the plants are well rooted they will quickly come into flower if placed in a warm house fairly near to the glass, and will bear ripe fruits, and, it goes without saying, also much finer fruits than plants brought in direct from outside. Of course, I know that it is not always possible to give Strawberry plants the careful treatment one would like to, especially where thousands are grown, but it more than repays the cultivator to get them well rooted before forcing them into flower, and any little inconvenience that this may occasion is well worth overcoming.

Another important point in connexion with Strawberry forcing is this: make quite sure that the embryo fruits are properly formed before removing the plants from the cool, airy conditions they have enjoyed while in flower to a warmer and moist house. Unless this is done deformed and stunted fruits are certain to result. Instead of swelling away quickly, as they should do when placed in a warm, moist atmosphere, they become hard, fail to develop, and mature (they do not ripen) prematurely. Some gardeners make a point of removing the plants from the house in which they have flowered as soon as the petals have fallen, taking this as a guide. It is, however, by no means an infallible one. When the petals fall the embryo fruits may or may not be formed. Until they are formed it is obviously impossible for them to develop. It is safe to say that the plants may be transferred to warmer quarters only when the numerous tiny pistils that cover the embryo fruit have shrivelled. It is these that should give the clue, not the falling petals. The petals may fall from reasons which have nothing whatever to do with the fertilisation of the blooms, such as the plant suffering from want of water, for instance. It is true, of course, that the petals of flowers do fall when the latter are fertilised, and this occurrence has probably caused many to take it as a guide. It is astonishing how quickly the small fruits will develop once they are properly "set;" the few extra days in the cool house are more than made up for by the rapid development afterwards.

A. P. H.

### WHY RESTRICT THE VINE?

WHY should we restrict the growth of the Vine when other fruit trees grown under glass are allowed to develop naturally? Take the Peach, the Fig, the Pear, the Cherry—who would think of making cordons of these and expect to secure an abundant crop of fruit and have long-lived trees? Yet why restrict the Vine to one rod, and by an annual severe pruning stunt its growth and weaken its energies? A plea for the extension or more natural growth of the Vine has on several occasions been put forward in THE GARDEN, for, as it has been pointed out, it then becomes much more healthy and vigorous, less liable to disease, and enjoys a longer life. The few remarkable examples of large Vines in this country have been referred to in support of this argument, but it is not necessary to point out such rare instances of the benefit arising from the practice of allowing the Vine to grow freely.

Take a much more common and also even a more valuable case—namely, that of the great market nurseries, from where tons of Grapes are annually sent to market. You will invariably find that the Vines are trained with two stems, and not with one, as is usually the case in private gardens, and I have no doubt that market growers would allow each Vine to have several more stems if it were not that they cannot afford to wait. They must fill their houses quickly, and therefore cannot afford to allow more than two stems to each Vine; and we may be fairly sure that the man who has his living to make from his Grapes knows how best to procure heavy crops. It is curious how the system of single-rod training should have become so widely practised throughout the country. It certainly cannot have been because heavier crops were obtained that way. If the Vines in many gardens were converted from single to double or even treble cordons, I feel sure they would give better results so far as the crop is concerned, and would thereby take a longer lease of life also.

A. P. H.

**BEGONIA MRS. H. T. DIXSON.**

WINTER-FLOWERING Begonias have been a great deal to the front lately, and they have proved most valuable plants for brightening the greenhouse and conservatory at a dull time of the year. The Begonia shown in the accompanying illustration received an award of merit from the Royal Horticultural Society on the 9th inst., when shown by Mr. H. T. Dixon, Woodside Nursery, Polegate. It is a very free-flowering variety, and is at its best during winter; for this reason it is certain to be welcome; the flowers are pink. The parents are said to be *B. Schmidtæ* alba and *Goliath*, the first named being the seed parent.

**GARDENING OF THE WEEK.**

**FLOWER GARDEN.**

**CARNATIONS.**

**P**LANTS in pots which have wintered in pits or frames should, at the first opportunity, be planted out. After making the soil firm it will be advisable to screen them for a few days with some short evergreen branches. For a large bed, Carnations associated with *Gladiolus* of the *gandavensis*, *Lemoinei*, or *nancyanus* types are very effective.

**BEGONIAS.**

If the room can be spared tubers intended for summer bedding should now be placed in boxes of soil and started in gentle heat. A suitable compost is two parts broken loam and one of leaf-mould, with plenty of sand, and a good layer of decayed manure in the bottom of the box. The tubers should be kept moderately dry until they show signs of growth. Grow the plants as cool as possible and they will be much hardier and better for planting out next June than those which are started at a later date in a forcing house. As soon as they can be handled, seedlings should be pricked off and kept growing. The *Semperflorens* section will soon require to be started on the same lines as advised for the tubers. If it is intended to increase the stock the plants may now be divided and for a short time placed in a warmer house.

**GLADIOLUS, &c.**

As weather permits the corms should be planted. If not done last autumn when storing the offsets should be rubbed off and planted closely in nursery beds; in a few seasons these will yield a good quantity of cut flowers.

*Hyacinthus* (*Galtonia*) *candicans* also require to be planted; with these it will be advisable to place the bulbs on a layer of sand. *Eucomis punctata* are too often restricted to pot culture in the greenhouse. If given liberal culture and a warm sunny position, such as at the foot of a wall, or in a border in front of the glass houses, these noble-

now until the foliage begins to ripen is the best time to feed these beautiful *Amaryllids*. The fragrant *Lycoris squamigera* is a desirable companion to the *Amaryllis*, and is amenable to the same culture. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

**INDOOR GARDEN.**

**CARNATION HOUSES.**

THOSE plants of tree Carnations that are in full flower would be better placed in a cool, well-aired temperature, with a little shade during the day from very hot sunshine, as the open flowers under these conditions would continue perfect for a much longer period, and, as well as being careful in the application of water to their roots, stimulants of any description should be rigidly withheld. Cuttings inserted as advised a month ago should by this time be well rooted, and, if not already done, should be potted singly into 2½-inch pots and be given a position close to the glass, and for a time a moist, close atmosphere.

**MALMAISONS.**

To the roots of those plants that are growing and producing their flower-spikes afford a little liquid stimulant, and to others, the flower-spikes of which are well advanced, give a little Clay's Fertilizer. Attend well to staking and tying up the flower-spikes, as well as to the removal of all surplus flower-buds. Carefully remove every diseased leaf. Water with the utmost care, and afford air in abundance. Fumigate occasionally.

**SMILAX**

is a plant without which scarcely any decorative arrangement is complete. Dividing the roots of established plants is a method of propagation that is frequently adopted, but plants that are raised annually from seeds sown now are perhaps the best, as they appear to possess a much freer habit of growth.

**ASPARAGUS SPRENGERI AND A. PLUMOSA**

are not difficult to raise from seeds, which sow at once, so as to afford time for the young plants to develop by the following autumn into a useful decorative size. The old plants, from which during the winter their foliage has been cut for use, should now have a portion of the old soil shaken away from the roots and afterwards be repotted into new, or in some cases top-dressing only may be necessary. It is difficult sometimes to do other than divide or split up into smaller portions those that are in baskets; but the divided parts may be placed into small-sized pots, and in this way they will form serviceable plants by the autumn. For filling baskets *Asparagus Sprengeri* and *A. deflexus* are most suitable, and when growing in this way afford them water in abundance at the roots and a well-moistened atmosphere.

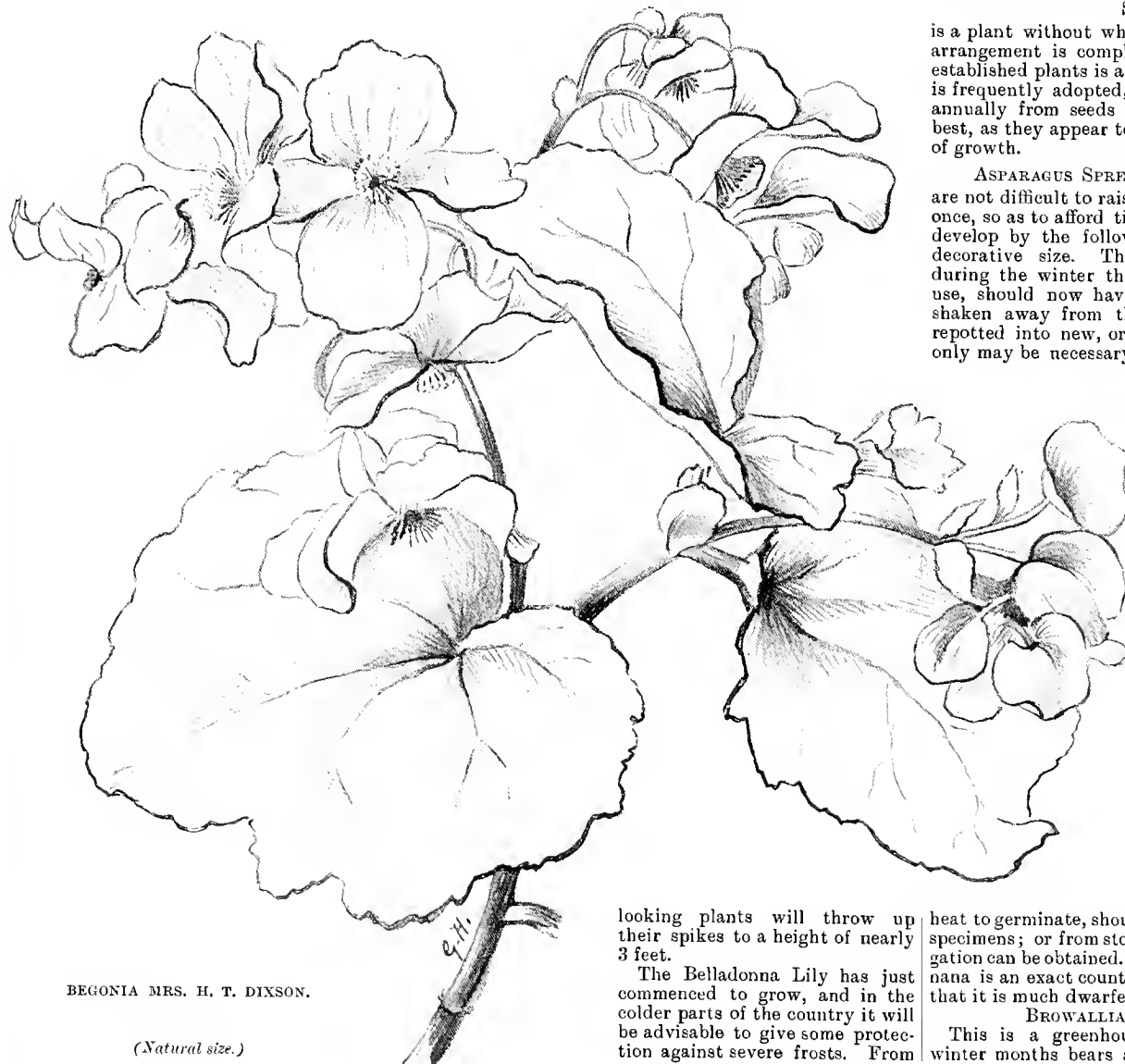
**SALVIA SPLENDENS GRANDIFLORA.**

The bright scarlet flowers of this during the autumn make a grand display in the greenhouse. It is not difficult to raise from seed, which, if sown at once and placed in a brisk

heat to germinate, should by autumn grow into good specimens; or from stock plants cuttings for propagation can be obtained. *Salvia splendens grandiflora* is an exact counterpart of the former, except that it is much dwarfer in growth.

**BROWALLIA SPECIOSA MAJOR.**

This is a greenhouse plant that during the winter months bears an abundance of large blue



BEGONIA MRS. H. T. DIXSON.

(Natural size.)

looking plants will throw up their spikes to a height of nearly 3 feet.

The *Belladonna Lily* has just commenced to grow, and in the colder parts of the country it will be advisable to give some protection against severe frosts. From

flowers. The plants when well managed can be grown to a height of 2 feet, and be formed into good specimens; but to do this sow the seeds at once, raise them in a brisk heat, and on their appearance through the soil gradually inure them to more air and light. J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

## KITCHEN GARDEN.

### HERBS.

In most gardens an extensive collection of these are grown, and as they differ greatly in growth and hardness the present is a good time to divide, manure, and rearrange them. Vigour is increased by turning them out every third or fourth year, and giving the ground a manuring and having it well trenched. Mint may be said to be most in demand in the kitchen, and is an easy subject to manage. If this is not well fed at the root the growth gets stunted, the stems wiry, and the leaves small. Tarragon, which requires a slight protection during severe frost, may be divided now along with Chives, Thyme, and Sorrel. The herb border ought to be neatly arranged and all carefully labelled. The annual varieties ought to be sown on or near the same piece of ground. Most of them may be sown in gentle heat next month and planted out about the end of April.

### SPINACH.

Autumn-sown Spinach is now beginning to make a little growth. The prickly-seeded variety has stood the excessive wet best. A slight sprinkling of guano or reliable fertiliser should be given between the rows and hoed in. Similar treatment may be given to autumn-sown Parsley.

### GLOBE ARTICHOKE.

These will soon be starting into growth, and where it is necessary to increase the stock the plants may be divided or suckers taken from the old stools. Plant on a fairly dry border, as this plant is liable to die out if grown on wet, heavy land. The young plants should be put in rows 4 feet each way. A mulching of rough stable manure may be given now and kept on till the end of next month. This plant may also be increased by sowing seed now in heat, and if well managed will show a good supply of heads next season.

### ASPARAGUS.

Where large quantities of this vegetable are lifted annually for forcing preparations should be made now to increase the stock by seed-sowing. It is much the better plan to do this under glass than to sow out of doors. By sowing now plants may be had ready for planting about the end of May. Land for this crop should receive a liberal allowance of the best farmyard manure obtainable. This might be enriched by a good coating of seaweed, or, if the land is heavy, sea-sand. It is too early yet to remove the covering from the permanent beds. The mild weather and the entire absence of severe frosts will be certain to start this early into growth. When the protecting material has been cleared, the beds should receive a slight application of manure, salt being most beneficial. Several inches of sea-sand have also been found of great assistance. The beds should be marked off anew each spring, soil being taken from the alleys to make up the edgings. THOMAS HAY.

*Hopetoun House Gardens, N.B.*

## FRUIT GARDEN.

### HARDY FRUITS—PEACHES AND NECTARINES.

THE buds of these trees are swelling fast, and, if not already done, the pruning and nailing should not be deferred any longer. Very little pruning will be required if the trees received proper attention in disbudbing and the thinning out as advised in these columns in the autumn. The young shoots should be tied in about 6 inches apart, generally leaving them their full length. Where the trees are nailed the old shreds and nails should be removed, and burnt over a fire before using again. Use tar twine for the main branches and narrow shreds, as wide ones harbour insects later, which are difficult to remove. Where the walls

are wired care should be taken not to tie the young shoots too tightly or the trees will often canker badly.

It is a good plan to twist the ties round the wires first before tying the shoots. Syringe the trees over when finished with Quassia Extract, and this will generally carry them over the blooming period safely. Where temporary protection only is given the poles should be placed in position so that the material may be quickly fixed when required. This should be done just before the flowers open. Tanned netting is cheap, easily and quickly fixed, and can also be used later for protecting ripe fruit.

### FIG TREES.

Trees grown outside should be pruned and nailed at once, unless covered up with straw or other protection, when the work may be put off a little longer. In pruning the trees cut out any of the old wood where it can be spared, leaving the young shoots so that the trees are well furnished with bearing wood.

### STRAWBERRIES.

Old plantations of Strawberries should have a dressing of soot or charred refuse from pruning, &c., a good dressing of short stable litter being afterwards carefully placed round the plants. The rains will wash this clean before the berries ripen. Plants set out last autumn should be looked over when the ground is dry enough, as some of the plants are sure to have been lifted out of the ground by frost.

### NUTS.

The pruning of these should now be done. Remove all the suckers from the stems and any strong growths that are not well furnished. The chief object is to keep the centre of the trees open; tie down the shoots to a stake, and cut any shoots back to the required length. Old trees will be benefited by a mulching of Mushroom manure or old potting soil.

*Impney Gardens, Droitwich.*

F. JORDAN.

## ORCHIDS.

### PLEIONES OR INDIAN CROCUSES.

#### AN INTERESTING WAY OF GROWING.

LOVERS of flowers who are not more or less interested in these pretty alpine Orchids are few. As is well known to many of your readers, they are natives of the lower and middle zones of the Himalaya, hence the familiar name of Indian Crocus. Nearly all the varieties cultivated in British gardens flower from October to January. They are by no means difficult to grow well, and it is not at all necessary to have a separate Orchid house for the purpose, as an ordinary plant stove or other structure with a somewhat similar temperature in the spring and summer months will do. For some years past we have grown a batch to come into flower for dinner table decoration at the annual shooting parties early in November. The kinds we have are *P. Lagenaria* and *P. maculata*, though similar treatment will answer for others. As we are about to repot or reblock our stock, a friend suggested a short time ago that he thought a few notes on our method of doing this would interest some of your readers. This was said more especially as to growing them on blocks of wood. For some years we did this on upright pieces of Elder wood, say, about 3 inches in diameter and of heights varying from 1 foot to 18 inches. We cut them level at their lower ends and stood them in shallow pans about 9 inches in diameter, these being filled with suitable soil and planted with small Ferns in some cases, and in others with *Fittonias* in variety. If preferred the two might be used together.

The object in each case is to make a natural base out of which the block seems to spring. The rooting medium for the Pleiones is made up of one-half small nodules of turfy loam, the other half being composed of tough peat and chopped sphagnum moss. Having chosen the best bulblets and also some small plants of *Episcia Cyrtodeira*, a very pretty dwarf-growing stove foliage plant, and

a few rhizomes of *Davallia bullata* (the Fern Ball *Davallia*), we began to cover up the stems. It was necessary to begin, say, from 4 inches to 6 inches from their bases, according to their height. With a small bundle of very thin copper wire a handy man will soon make up a dozen of them, which is the most we ever grew.

From ten to twelve bulblets of the Pleiones are put to each stem or block. When finished they are stood in an intermediate house, say, with a night temperature of 55°. If well watered at first very little more will be required for, say, a month, though if the weather is bright a dewing over with a syringe, using both now and hereafter tepid rain water, will be an advantage.

By the middle of March they may be stood on a side stage in a plant stove. During their whole period of active growth a good supply of water will be required. When the foliage is fully grown and the new bulblets are being formed, it is a good thing to dip each block weekly in water coloured with cow urine.

As soon as the foliage begins to decay less water will be required, but in this form of culture the rooting material should never become too dry. When the foliage falls off the blocks may be put on a stage or shelf in ainery where the Grapes are ripening. Some care will be required in timing them for flowering, as the flowers are not long lived after fully open.

During the past few years we have grown our main stock on pieces of Elder wood similar in size and character to the ones described, except that they are intended for laying on the cloth, not standing upright. In this case the under side of the block is flattened with a hatchet. They are then covered with the same mixture of soil and foliage plants worked in with, say, from twelve to fourteen bulblets on each block from 14 inches to 16 inches long. It is not necessary to have the Elder wood quite straight in this case. If bent somewhat it gives them a more natural appearance. The object in both cases is to put on the dinner table what appears to be a natural bough or branch covered with indigenous growth of a tropical or semi-tropical nature.

#### PLEIONES FOR TABLE DECORATION.

We had some for putting on the table last October that had from thirty-five to forty flowers open and opening. As a gentleman who saw them said to me at the time, "Clayton, you might have gone into an Indian forest and cut them off for the occasion." Those of your readers who have not tried this method of table decoration will find it interesting. As will be seen, it is capable of development, apart from using Pleiones. Several of the choicer scendant or semi-scendant stove foliage plants can be worked up for the purpose. I have an idea that especially the stronger of the *Anætochili* might prove of use. Why we use Elder wood is because there is plenty of it in the woods here, and its bark being of a spongy nature it holds moisture well. I have no doubt that any other rough-barked tree, say, Elm, Acacia, or Pear, would afford suitable material. Be careful not to have them too thick, or otherwise they look too dumpy, especially when used upright.

*Grimston, Tadcaster.*

H. J. CLAYTON.

## WORK FOR THE WEEK.

### CYMBIDIUMS.

THIS section of Orchids is very popular on account of their noble appearance when staged in the houses, the length of time the flowers last on the plants, or when cut for decoration they are of very easy culture and quite at home in a comparatively cold house. I recently advised beginners to grow the cool section of *Cypripediums*. *Cymbidium* would be quite at home in the same house, and would make interesting companions to the *Cypripediums*. *C. traceyanum*, *C. giganteum*, and the pleasing hybrid *C. winnianum* will now be out of flower, and should be repotted if they require it. The thick, fleshy roots like a good retentive compost. A very suitable mixture is made up of good turfy loam two parts and one part good leaf-soil, well mixed together, with a liberal sprinkling of small crocks and coarse sand; a good drainage of

large pieces of crocks should be afforded, over which place some good turfy loam to prevent the drainage becoming clogged; potting should be done rather firmly, keeping the compost below the rim of the pot. When a plant has attained large dimensions, and it is not possible to give it more pot room, break it up into pieces of more convenient size, taking every care to preserve as many roots as possible intact. In dividing a specimen loosen the roots and work away as much as is possible of the material from both sides, and then cut through the centre below the pseudo-bulbs and pull apart by hand. When the plant is thus halved it will be easier to divide to the desired size; remove any useless back bulbs, generally speaking only retain those that have leaves. The old bulbs will soon break and produce nice plants if laid on a stage and potted up when the young growth is visible.

REPOTTED PLANTS

should be carefully watered for some time, and those that have been pulled to pieces should be kept rather dry till the roots have made a start; they will benefit by frequent sprayings and damp surroundings, and should be kept well shaded from strong sunlight.

PLANTS NOW IN FLOWER.

Well-rooted plants of *C. eburneum*, *C. lowianum*, the beautiful yellow variety called *coocolor*, and *C. x Lowio-eburneum* will take a liberal supply of water; the potting of these should be deferred till after the flowering season is over and the young growths have made a fair start, when they may be treated in precisely the same way as I have advised for the winter-flowering varieties.

W. P. BOUND.

Gasston Park Gardens, Reigate.

INDOOR GARDEN.

EUPATORIUM VERNALE.

ONE of the latest novelties is this *Eupatorium*, although it has been known to science for about half a century, and those who attended the two last exhibitions at the Drill Hall could not but admire this beautiful plant. It has been cultivated in botanical gardens as *E. grandiflorum*, and under this name it has been mentioned in *THE GARDEN* as far back as January 23, 1892. In that short article it is stated that, although very little known, it is by no means inferior as a winter-flowering greenhouse plant to any of the more generally-known species. This article is also interesting, since it throws a little light upon its origin, a point about which there has been much uncertainty. It is spoken of as being hardy in the southern and central parts of France, and it resembles a plant figured in *Gartenflora*, said to have been raised from seeds found in the dust of a packing-case that had been sent full of Orchids from Guatemala. This species of *Eupatorium* may be met with under various names; it has had the misfortune to possess no less than three incorrect generic names, viz., *Ageratum*, *Conoclinium*, and *Brickellia*, but in each of these cases *grandiflorum* has been given as the specific name.

It is of shrubby habit, erect, with leaves much larger than the well-known *E. riparium*; they are rough, with serrated margin, and of a very deep colour, being of a bronzy shade, particularly when grown in a cold house or frame. The flowers, which are in large corymbs, are pure white; thus the snow-like heads produce a most pleasing contrast with the dark foliage. The flower-heads open about the second week in January, and will continue to do so through February. When in flower it is most attractive, the long and protruding styles giving it a light and beautiful appearance.

Like other *Eupatoriums*, it is a quick grower and of easy culture. Throughout the growing period it must be given plenty of moisture. During the summer months it will succeed if grown in cold frames, but it should be removed to a cold or intermediate house in September. As the plant requires a great deal of moisture at the roots a rich loamy compost will be found most suitable. It is a gross feeder, and should occasionally be given liquid manure, particularly if the plants have not been recently potted, for the roots soon fill the space allotted to them. The old plants may be cut back and repotted, and will then form quite bushes for next season's flowering. It is propagated from cuttings taken almost any time, preferably in early spring, when the young shoots are about 3 inches long. The cuttings will root readily if given a little bottom-heat and kept close in a propagating frame. Only those which are at all long need be pinched back. These grown on will form good flowering plants for next January and February.

Suckers are thrown up from the older plants, which may be removed and grown on as cuttings. It is a good plan when the plants are grown in frames to sink the pots in the ashes, and thus prevent, to a certain extent, the roots from being injured by drought. One great point in favour of *Eupatoriums* generally is that they are

and a glance over its 500 pages will show, too, that it is comprehensive. It is profusely illustrated both by photographic illustrations on art paper and by sketches interspersed throughout the text, which clearly show the methods of pruning, training, propagating, &c. The last 100 pages of the book are devoted to outline drawings (natural size) of the best Apples, Pears, Plums, Cherries, Peaches, Nectarines, Strawberries, &c., all arranged in strict alphabetical order, and therefore easy of reference. Every fruit that is worth growing in British gardens, either out of doors or under glass, is fully treated of in this work; the cultural notes come first, and then follows a list of the best varieties of the fruit under consideration. No less than 100 varieties of Apples are fully described and illustrated, and other fruits in proportion to their importance. Amateurs will find the lists of fruits for special purposes of great help.

Mr. George Bunyard treats of the cultivation of fruit trees out of doors, and Mr. Owen Thomas writes upon their culture under glass and on walls outdoors; there are additional chapters on special subjects by other experts—for instance, Mr. James Hudson (head gardener to Mr. Leopold de Rothschild) contributes a valuable article dealing with "Fruit Trees in Pots," Mr. J. J. Willis writes about "Injurious Insect Pests and Diseases," Mr. A. D. Mackenzie upon the "Construction



A HOUSE OF THE QUEEN PINE-APPLE. (From "The Fruit Garden.")

not subject to insect or fungoid pests other than red spider when allowed to suffer from want of moisture.

HERBERT COWLEY.

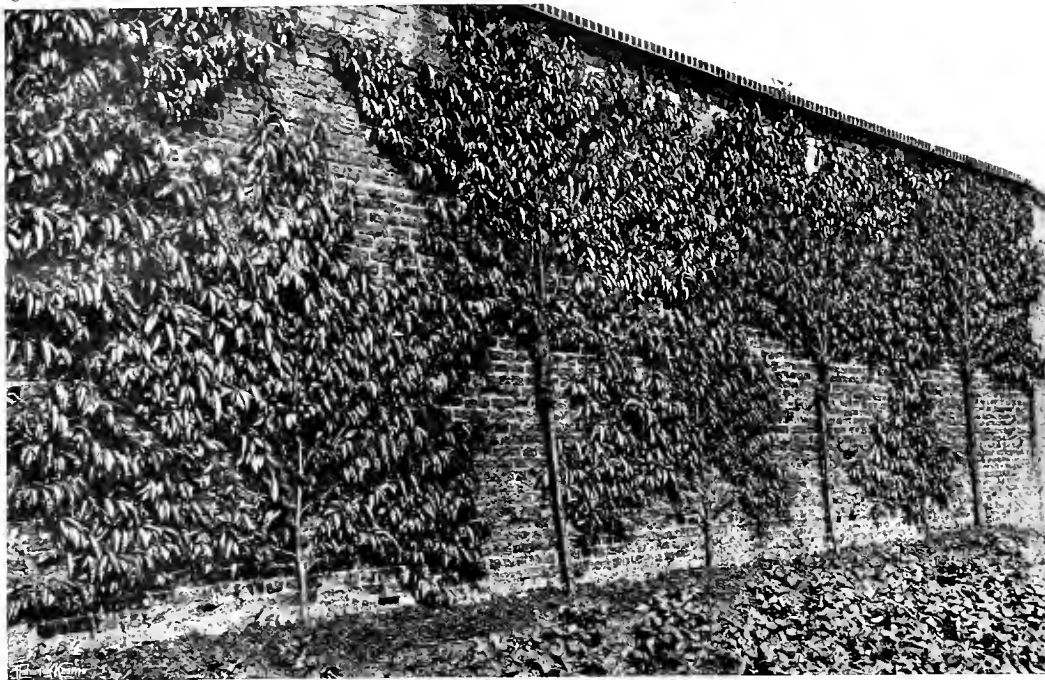
BOOKS.

**The Fruit Garden.**\*—In the preface to this book occurs the following sentence: "There are signs throughout the kingdom that we are slowly waking up both to the importance of fruit culture and the possibilities of its development." The truth of this must be apparent to the most casual observer, and the appearance of a practical and comprehensive work on fruit culture at the present time is most opportune. The authors' names are a guarantee that the book is practical,

\* "The Fruit Garden." By George Bunyard, V.M.H., and Owen Thomas, V.M.H. Published at the offices of *Country Life*, 6, Southampton Street, Strand, W.C.; by George Newnes, Limited; and by Charles Scribner's Sons, New York. Price 2s.

of *Fruit Houses*," Mr. W. Crump upon "Spraying Crops," Mr. S. Ponder (confectioner to her late Majesty Queen Victoria) about "Whole Fruit Preservation." Although, of course, hardy fruits and those which are generally grown under glass in this country receive most attention, there are chapters dealing with other aspects of fruit culture that are full of interest. Mr. W. Watson (curator of the Royal Gardens, Kew) is responsible for the chapter, "Tropical Fruits and How to Grow Them." This treats of fruits from the tropics, which, it is found, can be successfully grown under glass in this country, and includes the Mango, Pomegranate, Oranges and Lemons, Custard Apple, Date Plum, Banana, Passion Flower fruit, and others. Illustrations are given of most of these.

The ornamental value of fruit trees when in flower is considered in the chapter by Mr. Hugh A. Pettigrew, "Fruit Trees as Flowering Trees." The propagation of fruit trees is fully dealt with, and the various methods of grafting, budding,



HOW TO COVER A WALL QUICKLY : STANDARD AND DWARF FAN-TRAINED PEACH TREES. (From "The Fruit Garden.")

layering, &c., are clearly illustrated by means of diagrams. Root-pruning, planting, fruit storage, "The Construction of a Fruit Room," "Selections of Fruits for Various Districts" are other items of importance that are not lost sight of in "The Fruit Garden."

The profusely-illustrated chapters on "Fruit Culture in France" by M. Nombrot, "Fruit Culture in America," by Mr. H. E. Vandeman, and "Fruit Culture in the Channel Islands," by "A Channel Island Grower," afford much interesting reading. The methods practised in these countries are fully described, and, besides being valuable in themselves, may also be compared with those in vogue at home.

## NURSERY GARDENS.

MESSRS. CARTER AND CO.'S  
PRIMULAS.

WE always enjoy a visit to Messrs. Carter and Co.'s nursery at Forest Hill at Primula time, there to renew an acquaintance with favourite varieties, and also to be able to take note of new ones. For it is with Primulas as with many other flowers, new and untried varieties are constantly arising to take the place of those older sorts, which find themselves surpassed by their descendants in the all-important matters of form, colour, freedom of flowering, and vigour of growth. Some of the old-established favourites, however, are such really good flowers that even in face of the keen competition that takes place in the world of Primulas, for there the struggle for supremacy grows fiercer every year, by continued and skilful hybridisation and cross-fertilisation the newest varieties in some cases surpass their ancestors, and therefore are sought after in preference. They may, however, gain something in form or colour, yet be deficient in vigour or flowering—in fact, the great majority of newly-raised Primulas lose more than they gain (only a few prove to be real improvements), and so fail to oust the older ones altogether. Among proved Primulas of Messrs. Carter's raising are many that are favourites in gardens throughout the country, and we will first mention some of them.

Elaine is strongly represented at Forest Hill, but it seems safe to prophesy that soon it will be superseded by Elaine Improved, which is a much better variety in every way. Elaine, however, is a very good white, and still of great value for hybridising. Vermilion is hardly of vermilion colour, but is more correctly described as bright crimson. It is wonderfully free flowering, the flowers are splendidly displayed on the stalk, and a group of it makes a striking display. Holborn Scarlet is a handsome Primula, but it has one defect—namely, that the flowers fade rather quickly.

Lilac Queen is a splendid Primula. The deep lilac-rose semi-double flowers are borne in large heads and make a grand show. This variety is very free flowering, and the blooms are held well above the foliage. Ruby is a pretty Fern-leaved sort with rosy-red flowers, which are spotted with white. Holborn Pink bears large deep pink flowers, and is one of the most handsome. Magenta is a very free-flowering, brightly-coloured Primula, and Carmine is strong and free also.

King Edward VII. is a variety sent out by Messrs. Carter recently, and is undoubtedly a valuable acquisition to white Primulas. The blooms are large, white, and deeply frilled. It is a particularly strong grower. Princess May bears handsome pink blooms and is a variety that is sure to become popular. Holborn Queen, a Fern-leaf variety, continues for a long time to produce its pale blush flowers, and Hercules is remarkable for its large rose-purple blooms. Bouquet is a curious and interesting variety. The white blooms are surrounded by small green leaves, and in themselves constitute quite a miniature bouquet.

Among the double varieties are Double Scarlet, of vivid scarlet-crimson colouring; Snowflake, with blush-tinted flowers, which turn white with age; Aurora, a charming pink, and very free flowering; Prince of Wales, salmon coloured; Princess of Wales, white, with a few flakes of colour; all of which are really good varieties.

Among singles we have not yet mentioned Holborn Blue, perhaps as good as any of the so-called blue Primulas, which, however, are more correctly described as lavender blue.

Messrs. Carter have several beautiful forms among the stellata hybrids in various colours. Mont Blanc, with dark, Fern-leaf foliage and pure white, star-shaped flowers, is one of the prettiest; the white flowers and dark leaves make

a striking combination. We noticed several very pretty stellata forms whose flowers have large yellow centres. There is infinite variety in the prosecution of the culture of Primula seedlings from cross-fertilised seed, and many beautiful results are seen here. The display at Forest Hill is intensely beautiful and interesting, and shows to what perfection the Primula has been brought by careful hybridisation with a view to securing good colours.

## NOTES FROM THE MARKETS.

### COVENT GARDEN FLOWER MARKET.

**P**OT PLANTS.—The market does not fill up much yet, but there is a good supply of most seasonable subjects, and some things which are usually finished up before this are still available. Poinsettias are still on sale, but they begin to look to be past their best. Solanums are also to be seen. Erica hyemalis is almost passed, and is succeeded by E. wilmoreana. Acacias and Boronias are also to be seen. Marguerites are again very plentiful and good. Azalea indica is in various colours, but the white variety is not quite so plentiful. Azalea mollis in pretty shades of colour. Cyclamen very good on many stands. Begonia Gloire de Lorraine not over plentiful, and Daffodils of various sorts are very abundant, and many of them very good.

A few Primulas are to be seen, but they are very poor. Cinerarias are good, and the bright colours are much appreciated. Genistas are coming in plentifully. Mignonette is not yet of first quality. Lily of the Valley is not quite so plentiful in pots, but some good examples were seen in Messrs. Rochford's warehouse. They also had fine plants of Pandanus Veitchii in 6 inch pots. Hyacinths are plentiful and very good. Ferns are abundant in all the usual market sorts, except Maidenheads, but perhaps these are not much wanted just now. The Japanese Fern-balls (Davallia bullata) are very good, but little trade for them. Todea arborea, Dicksonia antarctica, Pteris Victoriae, and Asplenium lucidum are among the choicer sorts that may be seen.

*Cut flowers.*—The supply is plentiful of almost all seasonable subjects. Daffodils are the most prominent, and many of these are very fine. Emperor, Empress, Golden Spur, Sir Watkin, and Pheasant's Eye are abundant, but growers begin to complain of bad prices. Lilliums are more plentiful again. L. longiflorum is very good, also L. lancifolium. L. anratum does not make quite such fine blooms as at their natural season of flowering. Lily of the Valley is very fine and plentiful. White Azalea is plentiful, but it seems quite out of favour, and sells very slowly. Pink and white Roses are now coming in well, but there are very few good red sorts. Carnations are also beginning to get more plentiful.

*Orchid flowers* are not selling very freely. There is a good supply of Cologlyne cristata, Cypripediums, and Dendrobiums, also Cattleyas and Odontoglossums. English White Lilac, Eucharis, Gardenias, and other choice flowers are plentiful. There are also more bright-coloured flowers to be seen. The double crimson Ranunculus is very good. Anemone fulgens and the scarlet A. coronaria is plentiful, also the St. Bridg in various colours. There is still an over supply of Callas. A few good Chrysanthemums may yet be seen. The general trade is quite as good as usual for the Lenten season, and should Easter come in with fine weather we may expect to see a general revival of trade.



## THE LILIES.

(Continued from page 112.)

*L. giganteum* (Wall.).—The Great Himalayan Lily. A well-known species, apparently difficult to grow well in all soils and situations, yet thriving in quite unlikely places, so much so that we venture to think it may be grown well without elaborate preparation of soil and choice of situation. Bulbs, larger than a Cocoonut, ovoid, perennial, their lives terminating with the inflorescences, the scales formed of the thickened bases of the previous year's leaves. Stems, 6 feet to 12 feet high, green, hollow, 2 inches in diameter at the base, where they form massive roots. Leaves heart-shaped, pale green, stalked, not unlike those of a Cabbage, varying from 3 inches to 12 inches across, those from the bulbs larger and more persistent than those from the stems, those near the summit of the stems mere bracts enclosing the flower-buds, and these are woolly on the inner surface, the whole lot falling away as the flowers develop. Flowers ten to twenty in a spike, poised at right angles with the stem, or slightly drooping when expanding, each 6 inches to 10 inches long, white, the extreme base tubular, the tips reflexing or expanding fully, the funnel narrowing gradually from the tip to the base. The petals are very thick in texture, and are stained purple on the margins internally and suffused green externally. The seed-vessels are held erect. A noble Lily of imposing stature. Common in cultivation. Flowers in July and August. Inhabits the temperate regions of the great Himalayan chain, growing among shrubs mainly, but often found in forests under varied conditions, where plenty of moisture and a rich soil help its development.

**CULTURE AND USES.**—The peculiarly uncertain behaviour of this Lily under cultivation renders details of its cultivation somewhat difficult to give, and we must confine ourselves to what, in our judgment, appear to be the essential conditions. It grows naturally in the forest and is difficult to naturalise. It should be tried under various aspects, when it will soon be apparent which of these the Lily appreciates. Of essential conditions, shelter from late frosts is the more important. It requires a rich and deep soil—preferably the leaf-soil of open woods—in a fair state as regards moisture, and thoroughly to establish a plantation in the first year the smallest and the largest sized bulbs should be planted; the largest for immediate effect, the smallest to grow on and form the colony. From our observation of this Lily in various parts of Great Britain we gather that, given shelter, it may be grown in any plant border, in the wild garden, amid Bamboos and kindred plants, in the open clearings of woods, and particularly where the soil is rich and damp. Soils and situations in which Bamboos thrive would be likely to suit this Lily well. In a light soil shade is important, or the plants will grow feebly owing to drought; in heavy soils a more open exposure may be considered, but in no case would this plant thrive in a dry, wind-swept shrubbery, or, in fact, any bleak situation. We can offer no better suggestion than that this Lily should receive something of the treatment accorded to strong growing vegetables in a kitchen garden; one cannot overfeed it, the richer the soil the finer will be the spikes. Greater attention with regard to shelter will be required in late spring, when the flower-spikes are partially developed. During bulb growth the roots descend deeply, but the stem-roots, which are developed as the spikes appear, strike out in all directions, piercing the bulbs and travelling under the surface of

the soil, cart wheel fashion, several feet away. These will need a liberal mulch as they appear to preserve the growth from any check. The spike should be allowed to ripen seeds, and these should be sown at once in a place where they can be watched, and they will germinate freely in the following spring. A few offsets will survive the original bulb, hence the old stem should be cut down, not uprooted, lest the offsets be torn up with it. The bulbs may be flowered in pots, but they require bulky receptacles, and they never produce spikes so fine as those from established bulbs in the open.

G. B. MALLETT.

(To be continued.)

## THE KITCHEN GARDEN.

## CARTER'S EARLY FORCING TURNIP.

**F**EW spring vegetables are more appreciated than new Turnips, and they are soon grown. For many years the Early Paris Market and the Milan were the sorts mostly forced, but when fully matured they soon became tough and flavourless. If forced at all hard the plants failed to bulb. I am aware this is a common failing with all Turnips; they will not stand hard forcing, but, on the other hand, few give a better return when they receive attention at the start. The above-named variety is certainly well named, as it forces well, and in shape more resembles a large Radish. The long root enables it to mature rapidly, and when sown in a cold frame the early part of March I have had good roots in two months. For early borders it is equally useful, and in light soils I have found it suffer less from drought than the flatter roots. I do not advise it for storing, but to make frequent sowings, as by so doing there is a succession of sweet tender roots of excellent quality. The flesh is very white, of firm texture, and when cooked is very delicate.

## ONION BEDFORDSHIRE CHAMPION.

**S**EVERAL remarkable additions have been made of late years to Onions, the tendency in nearly all cases being to increase the size. I do not complain of this, as large, well-matured Onions are valuable, and it shows that with attention to cultural details we can grow them as well as the foreigner, and, I think, such bulbs are worth more attention as a vegetable at this season. Although Bedfordshire Champion is an old variety, it is one of the best for general use, shapely in form, and a good keeper. I have grown it for many years, and last season's crop was very good; indeed, the bulbs were large, without any special culture, and very handsome. It keeps splendidly. The bulbs should be stored thinly, or roped and suspended to a roof free of drip, but exposed well; they then keep sound into May. I prefer this variety to James' Long Keeping. The bulbs do not grow out with me so quickly, and are of a firmer texture. Of course, for keeping it is necessary to thoroughly ripen at the lifting, and in wet seasons this is difficult unless placed under glass; but it is well repaid by their long keeping, and they give a good supply of the best quality.

G. WYTHES.

## EARLY CABBAGES.

**I**n many directions complaints are made that autumn-planted Cabbages have done badly, owing to the wet weather. That is probable, as few ordinary garden vegetables can exist unless the weather be moderately favourable. Could the nature of the winter have been anticipated, it would have been a good plan to have thrown up ridges of soil 6 inches higher than the intervening spaces, each ridge being 18 inches broad, and planting two rows of Cabbages along each ridge 12 inches apart. That, with a space of 30 inches between each outside row of plants, would leave ample room for ordinary early heads to develop. The open drains between the various ridges would keep the

soil about the plants fairly dry, and enable the stems to be well earthed up. Cabbage plants often suffer greatly in windy weather, because, blown about, the stems, not being strengthened with soil, make holes which fill with water, and it is no matter for surprise if they should suffer and damp off.

A. D.

## KEW NOTES.

## INTERESTING PLANTS IN FLOWER.

*Temperate House.*

ACACIAS in variety, *Camellia reticulata*, and *Rhododendron grande*.

*Palm House.*

*Brownea coccinea*, *B. coccinea* × *B. latifolia*, *B. grandiceps*, *Clavija macrophylla*, and *Saraca indica*. *Synechanthus fibrosus* is fruiting well.

† *Range.*

*Freesia Armstrongii*, *Impatiens Oliveri*, *Mitriostigma axillaris*, and *Porphyrocoma lanceolata*.

*Orchid House.*

*Ærides Vandarum*, *Angræcum citratum*, *A. subulatum*, *Bulbophyllum neilgherrense*, *Cattleya Loddigesii*, *Cymbidium eburneum*, *C. lowianum*, *C. virens*, *Cynorchis compacta*, *Cypripedium* (various species and hybrids), *Dendrobium Ainsworthii*, *D. aureum*, *D. Berkeleyi*, *D. Cybele*, *D. endrocharis*, *D. euosium*, *D. Madonna*, *D. nobile*, *D. sarmentosum*, *D. speciosum*, *D. wardianum*, *Eria flava*, *Lælia harpophylla*, *L. lindleyana*, *L. superbiens*, *Miltonia Ruzelii alba*, *Odontoglossum angustatum*, *O. crispum*, *O. Edwardii*, *O. Insleyi*, *O. triumphans*, *Oncidium porriens*, *O. pubes*, *O. superbiens*, *Ornithidium densum*, *Phaius Blumei*, *P. Cooksoni* var., *P. Southeri*, *P. Wallichii*, *Platyclinis glumacea*, *Pleurothallis Ruzelii*, *Spiranthes plantaginea*, and *Tetramicra bicolor*.

*Succulent House.*

*Aloe ciliaris*, *A. insignis*, *Iris japonica*, and *Pitcairnia spathacea*.

*Alpine House.*

*Anemone blanda*, *Bulbocodium vernum*, *Coptis orientalis* var., *Corydalis angustifolia*, *C. kolpakowskyana*, *C. rutafolia*, *Draba Gilliesii*, *Hyacinthus azureus* var. *præcox*, *H. a. var. robustus*, *Lithospermum rosmarinifolium*, *Primula denticulata* var. *alba*, *P. megasæfolia*, *Saxifraga Albertii*, *S. apiculata*, *S. bursariana*, *S. b. var. major*, *S. Griesbachii*, *S. oppositifolia* var. *alba*, *Scilla sibirica*, *S. s. var. pallida*, and *Scoliopus Bigelovii*.

*Herbaceous Ground.*

*Adonis amurensis*, *Chionodoxa Lucilia* var. *sardensis*, *Colchicum hydrophilum*, *Crocus* (various species), and *Sarcococca hookeriana*.

*Arboretum.*

*Ericas* in variety and *Prunus davidiana*.

*Greenhouse.*

This house is particularly bright at present with a great variety of forced and ordinary greenhouse plants. The following are some of the most striking groups: *Cheiranthus kewensis* and *Paper White Narcissus*; white *Duc Van Thol* Tulips, and *Narcissi* *Empress* and *Van Sion*; *Primula sinensis* *Lady Dyke*, white, with dot plants of *Clivia miniata*, and a bronze form of *Acer palmatum*; *Eupatorium riparium*, with an undergrowth of red *Duc Van Thol* Tulips; *Cyclamen* and *Kentia sanderiana*; *Peristrophe speciosa* and *Prunus japonica* fl.-pl., with an undergrowth of *Primula sinensis* *White Perfection*; *Narcissus* *Emperor* and white *Primulas*; *Jacobinia ghesbreghtiana* and *Tulip Pottebakker*, white; double white *Primula sinensis*, *Iris reticulata*, dark blue *Hyacinthus*, *Prunus japonica* fl.-pl., and *Cheiranthus kewensis*; *Tulip Duc Van Thol*, yellow; *Lily of the Valley* and *Yucca aloifolia* var. *tricolor*; *Primula* *Giant Pink*, *P. Red Lady*, red *Hippeastrums*, and *Paper White Narcissus*; *Epacris*, *Acacias*, *Correas*, *Grevilleas*, and *Eriostemons* in variety; *Primula sinensis*, mixed varieties; red *Primulas*, white *Hyacinths*,

and white *Narcissus*. Also such things as *Coleus thyrsoideus*, *Amorphophallus Rivieri*, *Peristrophe speciosa*, *Sparmannia africana*, *Rhododendron præcox*, and *R. nobleanum*.

## OBITUARY.

### MR. JOHN MAXWELL.

**M**ANY cultivators of alpine and herbaceous plants will learn with great regret of the death of Mr. John Maxwell, Maxwelltown, Dumfries, which sad event took place on the 18th inst., after a long illness. Mr. Maxwell, who was seventy years of age, had cultivated hardy flowers for a great many years. Although the space he could devote to their cultivation was limited, no one could fail to find, at almost any time, something of interest in his garden. He was a great admirer of the *Narcissi*, and was the first in the district to have anything like a representative collection of the best varieties. It is, however, difficult to say what were his special favourites among hardy flowers. Alpines of all kinds, herbaceous and bulbous, taller hardy flowers, and hardy Ferns all claimed a share of his affections.

### MR. JOHN STOTERT BARTRUM, J.P.

WE are sorry to hear of the death at Bath lately of Mr. Bartrum, in his eighty-seventh year. He will be affectionately remembered in the city, and especially by those who loved their gardens, for he was a devoted gardener, and many years ago, when hardy flowers were despised by many, maintained a rare collection. Mr. Bartrum's work for the Royal Victoria Park and the Botanical Gardens deserves to be gratefully recalled, and he was ever willing to add to the collections there, and promote the popularity of gardening in every possible way. He greatly assisted in making the Botanical Gardens, and held the office of chairman of the committee for many years. Bath has lost a great supporter in the death of this ardent gardener.

### MR. WILLIAM COLE.

ONE of the best known horticulturists at Feltham, Mr. William Cole, of the Vineyard Nurseries, died there on the 16th inst., at the age of sixty-nine years. The death of his wife in 1902 came to him as a great shock, and affected him to a degree from which he never seemed to recover, and his health visibly declined. He took an active part in his business, as was his wont, up to Christmas last, but had been confined indoors since, keeping his bed for five days only, and undergoing great suffering borne uncomplainingly until the end came. He was buried in the Feltham Cemetery on the 22nd inst. He leaves a grown up family of four sons and two daughters, all of whom assisted him in his business in some way. For some time the business had been carried on under the title of W. Cole and Sons, and it was his expressed wish that the firm be continued. Born at Overton, Hants, on November 30, 1834, William Cole worked on a farm as a lad, where he saved a little money, and paid it to be taken into the gardens at Laverstoke, Hants; from there he went to Strathfieldsaye, Hants, under Mr. Johnson, then gardener to the Duke of Wellington, where he remained for several years; then to Chiveden, Maidenhead, under the late Mr. John Fleming; from there he returned to Strathfieldsaye, as foreman under Mr. Johnson, and on the occasion of the latter's death the Duke of Wellington wished to appoint him as head gardener, but the preference of the Duchess being for a Scotchman, Mr. Bell was appointed, the Duke making Mr. Cole a handsome present as a solace for his disappointment. Leaving Strathfieldsaye, Mr. Cole was for a time in the nurseries of Messrs. James Veitch and Sons at Chelsea, from where he was sent by the firm as head gardener at Ealing Park, then occupied by J. S. Budgett, Esq. Here he remained for some eleven years, making an excel-

lent reputation as a skilful all-round gardener, growing very fine specimen plants and excelling in Grapes. He was a leading exhibitor at the shows of the Ealing Horticultural Society and at other places in the district. In 1875 he established himself in business as a cultivator of Strawberries and Grapes for the market, growing White Muscat Grapes in particular with great success; of late years he cultivated Grapes chiefly, and up to the time of his illness took an active personal interest in the work. Mr. Cole was greatly respected both at Ealing and Feltham, and has passed away amid the regrets of a large number of attached friends. His eldest daughter has made a considerable reputation as a floral decorator, and is in the habit of taking most of the leading prizes at the exhibitions of the National Chrysanthemum Society at Richmond and elsewhere.

### MR. EDWIN JONES.

THE death is announced of Mr. Edwin Jones, senior member of the firm of Messrs. Bayliss, Jones, and Bayliss of Wolverhampton. Mr. Jones was seventy years of age.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY. DRILL HALL MEETING.

ON Tuesday last the Drill Hall, Westminster, was so crowded in the afternoon as to make it impossible for one to see properly the numerous beautiful displays of plants and flowers. Orchids were well shown, and hardy flowers, Primulas, forced shrubs, and indoor plants were largely exhibited also. There was only one dish of fruit shown.

#### ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, H. Little, W. H. White, W. Boxall, F. J. Thorne, J. W. Odell, E. Hill, M. Gleeson, T. W. Bird, J. Wilson Potter, W. A. Binley, W. H. Young, F. A. Rehder, A. A. McBean, Richard G. Thwaites, H. T. Pitt, Jeremiah Colman, Francis Wellesley, James Douglas, Walter Cobb, H. Ballantine, R. Brooman White, and E. B. Crawshaw.

Messrs. Sander and Sons, St. Albans, had a splendid display of Orchids, consisting largely of fine forms of *Dendrobium wardianum*. This exhibit filled two-thirds of one side of a long table. The *Dendrobiums*, which were finely flowered, constituted the background, and miscellaneous Orchids were arranged in front. Besides many good unnamed forms of *D. wardianum*, we noticed *D. w. var. xantholeucum*, a very choice variety. Among the other Orchids were *Laelio-Cattleya blechleyensis*, *Phaius Marthae*, *Odontoglossum excelens*, *O. harrystano-crispum*, *Cymbidiums*, *Lycastes*, and *Cypripedium Clio var.*, *C. The Gem*, *C. Olympia*, *C. Transvaal*, *C. Miss Louise Fowler*, and others. Silver-gilt Flora medal.

Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound), exhibited some good *Dendrobiums* and *Cattleyas*. Among the former were some excellent hybrids and varieties—*D. Cybele firefly*, *D. Artemis*, *D. rubens elegans*, *D. wiganianum purpureum*, *D. Aspasia*, *D. Sybil*, *D. melanodiscus*, and *D. noble*, Pickering Lodge variety. Other interesting Orchids were *Odontoglossum hunnebellianum*, *O. Rossi majus*, *Laelia X Mrs. Gratrix*, *L. anceps waddonensis*, and *Vanda Cathcarti*. Silver-gilt Flora medal.

Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. White), exhibited a very choice group of Orchids, which were attractively arranged. *Sophranitis grandiflora*, made brilliant patches here and there. *Cattleya Trianae* was represented by a finely-flowered plant, and the same may be said of *Cypripedium Sallieri* hycarum, *C. Le Doux*, *C. hirsuto-Salieri*, *C. villosum*, and *C. lathamianum*. *Odontoglossum ramosissimum* bore a fine raceme of its curiously-twisted yellow flowers, with *Dendrobium signatum aureum*, with its pale yellow flowers; *Neottia picta*, with variegated leaves and brick-red flowers on erect tall racemes; *Mitostia furcata*, *Laelio-Cattleya Myra*, *Masdevallia Cheloni*, *M. hincxiana*, *Epidendrum Endresio-Wallisii*, *Ada aurantiaca*, *Odontoglossum coronarium var. minutum*, and *Epidendrum porphyreum* were all well shown. Among the *Dendrobiums* were *D. leechianum*, *D. Wigania xanthochilum*, *D. Melpomene*, and *D. Ainsworthii* Hazelbourne var. Silver-gilt Flora medal.

R. G. Thwaites, Esq., Chessington, Streatham, S.W., had a pretty display of *Dendrobiums*. The plants here an abundance of blooms, particularly *D. noble murrianum*, *D. schneiderianum*, and *D. Wigania* yellow var. Others were *D. noble* Thwaites variety, *D. melanodiscus pallens*, *D. n. Amesia*, *D. Cybele nobilium*, and *D. Andromeda*. *Laelia Gwenia* (*L. jongheana X L. Cowanii*) was shown bearing two blooms. This plant was raised from seed sown in June, 1901. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited some pretty *Dendrobiums*; for instance, *D. Ainsworthii* var. *Elsie*, *D. Cybele elegans*, *D. Seylla*, *D. noble ballianum*, and other hybrid Orchids, among them being *Laelio-Cattleya Myra*, with rich orange sepals and petals, and crimson lip; *L. Mrs. M. Gratrix*, deep lemon-yellow; *L.-C. Orpheus*, white, with yellow-throated lip; *L.-C. Pallas*, *L.-C. warnhamensis*, *Epidendrum James O'Brien*, *Cypripedium godseffianum*, *C. Catherine* (superbly *X callosum Sanderi*), *C. Troilus* (*Sallieri X insigne Sanderi*), and *L.-C. callistoglossa*. Silver Banksian medal.

J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. G. Whitelegge), showed a small group of Orchids, among which were conspicuous *Brasso-Laelia purpurata-diglyana Mikado*, a large, handsome flower; *Lycaste Skinnerii Beauty*, *L. S. Enchantress*, *L. S. Alba*, *Cattleya Trianae* *Mavourneen*, various *Odontoglossums*, notably *O. harrystano-crispum*, *O. X Atriane*, and *O. X excelens*. Silver Banksian medal.

F. Du Cane Godman, Esq., South Lodge, Horsham, showed a finely-flowered plant of *Lycaste aromatica*, bearing two dozen blooms, which have greenish sepals and rich yellow petals. Mr. Godman also showed a plant of *Lycaste Skinnerii*, bearing some two dozen flowers. It was growing in a 6-inch pot, and was a lovely sight. He also exhibited *Platyclis glumacea* finely flowered.

M. Ch. Vuylsteke, Louchristi, Belgium, exhibited some fine forms of *Odontoglossums*, beautifully marked and spotted. Included were *O. Vuylstekei concinnum*, *O. loochristense formosum*, *O. l. Norma*, *O. V. recens*, and others.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed *Dendrobium crassinode*, a mass of bloom; *D. splendissimum grandiflorum*, *D. primalinum*, *Cypripedium nitens insignifium* Ball's variety, *C. Olivia* (*niveum X tonsum*), *Cattleya Trianae* (white variety), *Phalenopsis stuartiana*, and a fine form of *Lycaste Skinnerii*. Silver Banksian medal.

Messrs. Cypher and Sons, Cheltenham, had a bright display of Orchids in variety. Among them were *Dendrobium barbatulum*, a very attractive species, bearing drooping racemes of white flowers; *D. Cybele nobilior*, *D. n. nobilium*, *D. leechianum*, *D. n. statterianum*, *Laelia harridophylla*, *Masdevallia hincxiana*, M. Heathii, several *Cypripediums*, including *C. Mandie*, *C. Calypso*, and *C. Gowerii*. Silver Flora medal.

Kennedy Jones, Esq., East Finchley, gained a cultural commendation for some finely-grown and well-flowered plants of *Coelogyne cristata*.

#### NEW ORCHIDS.

*Cymbidium ballianum*.—This is a lovely flower, with waxy white sepals and petals, the throat and lip lined with yellow; it is sweetly scented. *Cymbidium eburneum* and *C. Mahonii* are the parents of this hybrid. First-class certificate.

*Cymbidium giganteum Wilsoni*.—A new *Cymbidium* from Yunnan, China, collected there by Messrs. Veitch's traveller, Mr. Wilson. It has been classed by Mr. Rolfe as a variety of *C. giganteum*. The raceme of the plant shown was short, and carried several flowers having green sepals and petals spotted with brown. The lip and throat are white, heavily marked with chocolate-red. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

*Sophranitis Cattleya Sara*.—This is a pretty hybrid between *Sophranitis grandiflora* and *Cattleya Trianae*. When they open the flowers are a deep rose colour, with a shade of crimson; the lip is darker, and the throat is yellow. From Messrs. J. Veitch and Sons, Limited, Chelsea. Award of merit.

A botanical certificate was given to *Dendrobium Williamsii*.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. W. Poupart, Joseph Cheal, S. Mortimer, Edwin Beckett, George Kelt, H. Markham, J. Jaques, H. Parr, G. Reynolds, F. L. Lane, John Lyne, W. H. Divers, James H. Veitch, and Owen Thomas.

There was only one exhibit before this committee, a dish of Apples.

#### FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. Charles T. Drury, R. C. Notcutt, R. Dean, John Green, William Howe, J. F. McLeod, R. Hooper Pearson, G. Reuthe, J. Jennings, C. K. Fielder, Charles Dixon, C. J. Salter, J. A. Nix, Charles Jefferies, J. W. Barr, Charles E. Pearson, R. W. Wallace, William Cuthbertson, W. P. Thomson, E. H. Jenkins, W. J. James, Charles E. Shea, and H. J. Cuthbert.

Messrs. B. S. Williams and Son, Upper Holloway, showed many fine examples of *Lilac*, *Prunus*, *Azalea mollis*, *Forsythia*, *Malus floribunda*, and other plants. Silver Banksian medal.

Mr. John Russell, Richmond, had a beautiful group, in which were *Prunus triloba*, *Azalea mollis* in many charming shades, *Andromeda speciosa*, *Gaultheria*, *Rosa latifolia* fol. var., and much more of a like character. Silver Banksian medal.

Messrs. William Cuthbert and Sons, Highgate, had a magnificent display of forced shrubs in great variety, the *Magnolias*, *Wistarias*, and *Lilacs* being especially charming and well done. To these in addition were *Laburnums*, *Spiraea confusa*, *Prunus triloba*, *Pyrus Malus Scheideckeri*, *Magnolia amabilis*, &c., with a margin and groundwork of *Aralia Sieboldii*. Silver-gilt Banksian medal.

The group from Messrs. R. and G. Cuthbert, Southgate, was an imposing display of *Azalea mollis* in great variety. Standards and bush-like were largely used, such varieties as *Alphonse Lavallée* (rose-pink with buff), *Attacairensis* (yellow), *Rudyard Kipling* (orange-yellow), and *Peter Koster* (orange-red), being very effective. Palms and other things assisted in the grouping. Silver-gilt Flora medal.

A very fine lot of *Cyclamen persicum* in white, crimson, pink, and red shades came from Mr. John May, St. Margaret's, Twickenham. The plants were excellent specimens, well grown, and freely flowered. Silver Flora medal.

From Mr. G. Reuthe, Keston, Kent, came an interesting lot of *Crocus* species, *Saxifraga Grisbachii*, *Shortia galatifolia*, *Sarracenia purpurea*, *Galax apylla*, *Iris Histrictodes major* (very fine), *I. Tauri* (very showy), *I. Danfordiae* (yellow), *Anemone blanda*, and other of the earliest flowers of the year.

A group of plants of *Begonia gigantea carminata* was shown by Messrs. J. Laing and Sons, Forest Hill. Unfortunately, the plants were hardly in flower, but the bud colouration was itself a most effective item. The plant, too, is vigorous, and possesses many points of value as a winter-flowering subject. *B. argentea guttata*, a pretty leaved sort was also in quantity.

# THE GARDEN

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## CENTENARY OF THE ROYAL HORTICULTURAL SOCIETY.

**T**O-MORROW the Royal Horticultural Society completes its 100th year, and all interested in this great power for good in horticulture have cause for congratulation. In a short sketch of its history, contributed to the catalogue of the great May show in the Temple Gardens last year by the president, Sir Trevor Lawrence, Bart., we are reminded how deeply the love for gardening has entered into the life of the people. No truer words have been written than the following:

“The inhabitants of Great Britain have, during the last half century, and especially of late years, grown so accustomed to be surrounded by flowers, in town and country alike, that they have come to regard the present state of British horticulture as a matter of course. But no one who carries his mind back to the beginning of the last century can fail to be struck by the extraordinary progress which gardening and gardens have since made. It has often been remarked that the world advanced more rapidly during the long and happy reign of her late Majesty Queen Victoria, in all that contributes to the health, comfort, and convenience of life—that is to say, to its happiness—than during the preceding 500 years. While the Sciences generally have progressed with giant strides, horticultural science has not lagged behind. During the century but lately ended trees and shrubs, annuals and perennials, flowers and fruits, have been introduced from foreign countries in vast numbers, while the abilities of several generations of gardeners have found full scope for their exercise among a garden-loving people in improving old and raising new varieties of plants and fruits by cultivation, selection, hybridisation, and in other ways.”

Though a general history of the society should interest all who are sufficiently enthusiastic to acquire a Fellowship, there is one phase of it that perhaps appeals with greater force than its early triumphs, its years of vicissitudes, and its restoration to a proud position through a firm and wise government, and that is horticultural practice in the garden at Chiswick.

It is for this reason we have reproduced several illustrations of an historic place—the Ivy-mantled council chamber, where doubtless the treasures sent home by the society's traveller Fortune first saw the light, the famous vinery, and the old plant houses of a long distant age—all reminiscent of the intense gardening spirit of the men who in those days sent out collectors to many lands

for the enrichment of English gardens and woodlands.

The founders of the society were men of energy and foresight. The importance of horticultural practice was recognised by the establishment of a garden, and Kensington was the place chosen, with a nursery at Ealing. This was in 1818, but four years after the whole of this work was concentrated at Chiswick, where a thirty years' lease of thirty-three acres had been obtained from the Duke of Devonshire, the lease being renewed in 1852 for a like period. Many years afterwards this acreage was reduced to twelve, which are its present dimensions.

About the time the society possessed a garden of its own John Reeves was collecting in China, and he was one of the first to introduce the *Wistaria sinensis*. With what wonder, even in 1904, when new flowers flow as a steady stream into our gardens, should we view the lavender trails of so beautiful a tree! The success of Reeves was the means of the society sending out collectors at their own cost, the first of whom were Don and Forbes in 1821, and then Douglas, who explored the rich forests from North America to California. Through his courage, devotion, and knowledge our gardens were enriched by many trees which are now familiar and largely planted—*Pinus insignis*, *Abies Douglasii*, and many beautiful annual flowers.

Parkes and McRae are among the honoured names of this period; but the greatest of all is Robert Fortune, who in 1843 was sent by the society at great expense into the Far East. The yellow *Jasminum nudiflorum*, that now clouds many a garden wall with colour, was sent home by this brave traveller, who enriched our gardens with the beautiful flora of China and Japan, and revolutionised the great Tea industry in the East by transferring it from China to our Indian Empire. It is well to remember, in these commercial days, the work of Robert Fortune, and of many other collectors connected with its history.

In 1833 the Chiswick Gardens became a fashionable resort. When we read of the great exhibitions to which Society flocked in those days, but, as is the wont of Fashion, afterwards neglected, we tremble to think of the time when history may repeat itself. Financial troubles loomed ahead, and the influence of the then Duke of Devonshire, who was appointed president, was unavailing.

In those days Chiswick was a beautiful village; the residence of the Duke of Devonshire was surrounded by meadows and leafy lanes, and his interest in the society was so great that the grounds around the famous house were thrown open to visitors to the shows in the neighbouring garden, but to no purpose. The Duke died in 1858, and the Prince Consort was appointed in his place, but the sad event of 1861, at the moment when the Prince was endeavouring to place the society in a sound financial position in the newly-acquired grounds at South Kensington, was only the beginning of troubles which are fresh in the minds of some who govern the society at the present day.

Names we reverence to-day have been connected with Chiswick. George Bentham, Knight, Lindley, who suggested the holding of shows at Chiswick, and others whose labours will be recounted in the more descriptive history of the society we propose to publish. We are thankful that a society with so brilliant a beginning has maintained throughout its experimental and practical work, and, though evil days have fallen upon Chiswick, its history will be continued under more suitable conditions in the sixty acres at Wisley.

Around the garden at Chiswick cling many memories. It passes into the hands of the speculating builder, and ends its career sadly, but to most of those who have laboured there it is not forgotten even in these days of unrest and superficiality, and we close one book to open another that will, let us hope, in the years to come, record in its pages as bright a history of good work accomplished as in the long-distant past. The society is in strong hands. Its watchword is the safe one—Horticulture—and if it never swerves from that policy it will remain a power for good at home and abroad.

## TUB GARDENING.

HAVING had some years' experience with growing tender and half-hardy plants in tubs, I am complying with your request in the footnote to Mr. Paul's queries (page 160). First, as to the tubs themselves. We have used both empty paraffin casks and what are termed fusty beer barrels for many years. The prices of both are about the same, viz., 1½d. per gallon, though as we reside in a brewery district we get barrels free of railway carriage, which is an advantage. When sawing the latter in two be careful to have them cut

in the centre, which will be right across the bung-hole. A bit of half-round wood can be nailed in each half-circle, or stout zinc nailed on the outsides of them. In both cases it will be hidden with the painting that is needful. We find two coats of paint will do, though a third coat is an advantage. The two first should be lead colour, and the third green. A coat of black afterwards on the iron hoops should be given. For the smaller sizes not less than five holes bored with an inch auger should be made in the bottom of each tub. Larger ones should have more. I ought to have said that as soon as the tubs are cut in two we get some shavings or dry straw and upturn each tub over them, then set fire to them, leaving the tubs sufficiently long on fire so that the inner surface is well charred over. This is done with the object of preserving them and also destroying anything that might injure the roots of the plants when they come in contact with the sides of the tubs.

For the smaller sizes two stout box handles should be screwed on to each one. They can be purchased cheaply from any respectable ironmonger. For the larger ones stouter ones are best, say, made from bar iron  $1\frac{1}{2}$  inches in width by a quarter of an inch in thickness, each handle to be not less than 9 inches long with their upper ends turned outwards so as to take a stout 2-inch piece of wood.

The object in this case is that two persons may with the pieces of wood readily move the tubs from time to time as required. Holes should be drilled in the upright pieces of these irons to take screws for affixing them to the tubs. Any blacksmith would soon make them if required. I have been careful to go into details in this matter, feeling sure there may be many of your readers who would like to go into this very interesting form of garden decoration. Of course, those who can buy the tubs need not take the trouble to read my notes.

Whatever kind of plants are to be put into the tubs, they should, of course, be permanently planted. If proper drainage is put in and the right kind of soil there would be no need to replant for, say, three years at the least. The only exception to this rule is when, say, Chrysanthemums are grown in them. We have used tubs for this purpose for over twenty years, and find them very useful for making a good show in a large conservatory during the early winter months.

Anyone who has not a greenhouse but is in possession of a warm, dry shed from which frost can be excluded in the winter, may add much to the interest of their gardens by going in for tub gardening. The main points to be careful about in this case are to have them removed before injured by early frosts and not put completely out of doors too early in the season. If the shed has some light from windows and means of ventilation in the late spring months the following plants could be safely and well grown: Strong-growing seedling Abutilons, Agapanthus, Brugmansias, strong-growing Fuschias, Lemon-scented Verbena, Acacia lophantha, Erythrina Cristagalli, strong-growing Cannas, variegated Euonymus, and Myrtles. Care is required in each case that the soil in the tubs is not kept too wet or too dry, during the winter especially. After the first year the soil for an inch or two in depth will require to be carefully removed each spring and a little fresh put on in its place. During the height of growth a slight weekly dressing of some good artificial manure may be given.

Grimston, Tudcaster.

H. J. C.

## THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

### LENTEN HELLEBORES.

Mr. T. H. Archer-Hind, Coombefishacre, sends a charming variety of Lenten Roses, which are beautiful when seen floating in a bowlful of water. The colours are very tender and unusual, and one flower named *Devonia* is white, with a multitude of rosy purple spots, on a broad, firm petal. Tender rose, almost pure white, and many delicate shades abound in this series from Mr. Archer-Hind, who has raised so many new forms of good colours. We enjoy the flowers in a bowl, floating like Water Lilies, and in this way they keep fresh for days, especially when the stems are slit up about half their length.

### CYPRIPEDIUMS AND OTHER ORCHIDS.

A boxful of *Cypripediums* of beautiful yellow colouring come from Mr. D. M. Grimdsdale, Kent Lodge, Uxbridge. The flowers represent extremely good forms, and were gathered evidently from thoroughly well-grown plants.

### BEAUTIFUL BULBOUS IRISES.

Mr. Perry sends from his Hardy Plant Farm, Winchmore Hill, London, N., several beautiful bulbous Irises, which, we hope, all who rejoice in the early flowers of spring will have in their gardens. The hardy plant house is the place for these at this season, or a cold frame, or a window box where protection can be given during the time of flowering. In the open ground, unless in some sheltered position, the flowers get sullied by heavy rains and frosts. Mr. Perry sends *I. Heldreichii*, too well known to describe, but its purple colouring is always welcome to us; and so also is the deeper shades of *I. reticulata purpurea* and the exquisite beauty of *I. Tauri*. A very charming flower is *I. Hausnecii*; the flowers are small, of a lurid purple colour, with yellow colouring on the fall, an Iris well worth growing.

### FRUITS OF MUSA CAVENDISHII.

Mr. F. Jordan, Impney Hall Gardens, Worcestershire, sends some splendid Bananas. The bunch from which they were cut had over 250 fingers and weighed 92lb. Although Mr. Jordan says the fruits are not of such good flavour as usual, owing to the sunless season, they are far better than the best of imported ones. Mr. Jordan grows Bananas very successfully, and next week will have something to say about them in THE GARDEN.

### SALIX GRACILISTYLA MIQUEL (S. MUTABILIS OF GARDENS).

This distinct and interesting Willow has lately been sent in flower to us from Mr. Anthony Waterer's nursery at Knap Hill, Woking. It is a native of Japan, and was distributed first under the name of *S. mutabilis*. When it flowered at Kew in March, 1897, it was, however, found to be a species that had previously been described by Miquel under the name of *S. gracilistyla*. It has a graceful pendulous habit, which in the plants sent out has been rendered the more marked by their being grafted on stocks a few feet high. The leaves are oblong and pointed, and about 3 inches long by 1 inch wide; they are dark green above, paler and covered with minute silky hairs beneath. The young wood also is covered with a fine, grey, silky pubescence. Flowering in late February and early March its

leafless branches are then very pretty, thickly set as they are with short, broad catkins of a beautiful silvery grey colour. As regards the hardness of this Willow one can only say that it has withstood the last eight winters without serious injury. Whether it would survive a really severe one like that of 1894-95 has yet to be seen.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 8.—Royal Horticultural Society's Drill Hall Meeting. Horticultural Club, House Dinner at 6 p.m. Discussion opened by the Rev. Professor Henslow, on "Botanising Excursions."

March 9.—East Anglian Horticultural Club Meeting.

March 16.—Royal Botanic Society's Flower Show.

March 22.—Royal Horticultural Society's Drill Hall Meeting.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).

**Royal Horticultural Society.**—The next fruit and flower show of the Royal Horticultural Society will be held on Tuesday, the 8th inst., in the Drill Hall, Buckingham Gate, Westminster, at 1—5 p.m. A lecture on "Cottage and Allotment Gardens" will be given by Mr. Alexander Dean, F.R.H.S., at three o'clock. At a general meeting of the society, held on Tuesday, the 23rd ult., forty new fellows were elected, amongst them being the Marchioness of Linlithgow and the Right Hon. the Earl of Northesk, making a total of 301 elected since the beginning of the present year.

**Lectures in 1904.**—March 8, "Cottage and Allotment Gardens," by Alexander Dean; March 22, "Heridity of Acquired Characters," by Professor Henslow; April 5, "Villa Gardens," by Hugh P. C. Maule; April 19, "Diseases of the Potato," by George Masseur, V.M.H.; May 3, "Enemies of the Apple tree," by M. Charles Baltet; May 17, "The Horticultural Phase of Nature Study," by R. Hedger Wallace; June 14, "Floral Metamorphoses," by Professor Henslow; June 28, "Hybridisation of Roses," by M. Vivian Morel; July 26, "Orchid Varieties and Hybrids," by John Bidgood; August 9, as yet undecided; August 23, as yet undecided; September 6, "On Gourds," by J. W. Odell; September 20, "Methods of Employing Roses in the Decoration of Gardens," by George Gordon, V.M.H.; October 18, "Vegetable Sports," by Professor Henslow; November 1, Planting Woods for Winter Effect," by the Hon. Vicary Gibbs; November 15, "Orchard Management from a Commercial Standpoint," by Professor Craig; November 29, "On Hollies," by E. T. Cook. Till the end of June the lectures will be given at 3 p.m. in the Drill Hall, Buckingham Gate, S.W.; after June at the same hour in the Horticultural Hall, Vincent Square, Westminster.

**Notes from Baden-Baden.**—*Iris bakeriana*, although not very variable, has produced two desirable forms here; one has flowers of a deep even colour, and the other of a Prussian blue. *I. histrioides major* is an improvement on the type, all parts of the flowers being massive and broad. A charming novelty is *I. histrioides alba*; its satiny white with an orange-yellow crest attracts attention at once. As to the *Oncocycelus* Irises I have found after having experimented with a few dozen: In 1902 and the following year I left the plants alone, gave them no glass shelter last autumn, and no protection whatsoever during this season, which was cold, rainy, and sunless—in fact, I left them alone. But, to my surprise, I find that those which were just planted beneath the surface are in very good condition and thriving, whilst those which had been planted about 2 inches to 2½ inches deep are dead. It is easy to draw conclusions from this.—MAX LEICHTLIN, *Baden-Baden*.

**Northern Spy Apple.**—In this cold and damp climate Northern Spy Apple does badly; it cankers and the fruit is exceedingly dry and juiceless.—D. K., *Virginia, Ireland*.

**Nova Scotia fruit.**—The Agent-General for Nova Scotia informs us that the Crystal Palace authorities have presented a special commemorative medal to the Nova Scotia Government for the splendid exhibit of dessert, cooking, and cider Apples which have been displayed by the Fruit Growers' Association in the Canadian Court during the last three months. Nova Scotia fruit easily holds the first place among all the Apples imported into this country from abroad. By a process of systematic selection directed towards securing flavour, combined with long-keeping qualities, and by limiting production to comparatively few varieties possessing these characteristics, Nova Scotian growers have won for their fruit this enviable position. The Apple crop in Nova Scotia was unusually large last year, and over half a million barrels have already been shipped to this country.

**Fruit culture in Ontario.**—The fruit growing industry of Ontario is a very important one, with possibilities of development which should interest Englishmen who are looking for other occupations than farming and stock raising for the employment of their energies and capital. The wise solicitude of the Federal and Provincial Governments in taking upon their shoulders the investigation of and removal of various problems in the

and the fruits of the last-named split so badly before they are fully ripe. There is another variety of Bourjassotte, which is also a dark-coloured fruit, but it is not so rich as the one named above. This is called Noire. It is a more solid fruit than Grise, and not at all rich. At times these two varieties are mistaken, one being grown for the other. This was one of the best Figs in the collection at Chiswick, and it always cropped well, but it does not like hard forcing. On the other hand, it can be had very late, so that it is valuable to prolong the supply. It should not be planted out, as when given much root space it is inclined to make too much wood, but as a pot tree it is most valuable. The fruits are of a rich chocolate colour, the flesh dark red, and they are above medium size. The tree, when given good culture, crops grandly, the fruits being freely produced on the short spur growths, which this variety makes freely if closely stopped in the growing season. I class this variety as the best all-round good dark Fig for pots.—G. WYTHES.

**Precocious *Leucojum æstivum*.**—Last year I contributed a note concerning some plants of *Leucojum æstivum* that exhibited a very precocious tendency. This year, when I returned to my garden towards the end of January, after

arranged. The fungi should be lifted carefully, each with a small piece of the rotten wood to which they are attached adhering to them, and carried home. A shallow glass or china saucer or dish should be procured, and half filled with water. In this should be placed sufficient fresh green Moss almost to fill the dish, and the Pezizas can then be placed on the top of the Moss that should hide the rotten wood to which they are attached. Rough and not close-growing Moss must be used for filling the dish, that known as Fern Moss, a *Hypnum*, being the most attractive. From two to three dozen fungi, ranging in size from three-quarters of an inch to 1½ inches across, may be placed in the Moss, and these will retain their colour and freshness for a full month or more, and provide a beautiful and uncommon decoration for the living-room during the darkest days of mid-winter.—S. W. FITZHERBERT.

***Chimonanthus fragrans*.**—The chief value of the flowers of this hardy shrub lies in their fragrance and appearance in the winter. We have here a large specimen growing against a south wall; it is in full blossom, the air in the vicinity being laden with its fragrance. This plant is trained like a wall Plum tree, and the shoots are spurred in precisely the same way. The flowers are borne in January or February, when the tree is devoid of leafage. The variety *grandiflorus* has larger flowers than the type, and is altogether an improvement. The *Chimonanthus* is well adapted for culture on low walls or fences, either in the garden proper or in the pleasure grounds. The soil should be rich and open, and where such does not exist naturally means should be taken to make it so. When the tree is well established do not feed too much or over-luxuriance will result, to the detriment of free flowering. Pruning should be performed soon after the flowers have faded and before the sap commences to rise. Cut back all the previous year's growth to within four or five buds of its base. The leading shoots and those required for extension may be left intact or slightly shortened. The method of propagation usually adopted is to layer at the present time the young shoots that spring from the base of the tree.—H. T. MARTIN, *Stonleigh*.

**A new Parsnip.**—Parsnips are not favourites with all vegetable growers, but much depends upon the variety, how grown, and other details. The new variety I would call attention to is very distinct, and likely to become a more popular vegetable than the older sorts on account of its smaller size and excellent flavour. The variety in question, Sutton's Intermediate, may be classed as an intermediate form. It does not approach any of the older varieties in length, but, unless for exhibition, I fail to see the importance of this. The new Intermediate with me, sown early last May, is more like a short Carrot, but doubtless if sown earlier it would be larger or longer. I see no gain in mere size, and if sown late and the roots left in the soil and lifted as required, the quality is much improved. Of course, in heavy soils earlier sowing may be necessary, as even with Parsnips a rigid rule cannot be drawn, but there is no question as to the quality of the newer form. The flesh is very soft, there is very little core, and this variety is admirably adapted for shallow soils. The foliage is small, and the roots mature early, and in many gardens where Parsnips are in demand it would well repay the cultivator to sow an early lot in February, another two to three months later, the last being lifted as required for use. By keeping the roots thus the flavour is much better.—G. W.

**Figs St. John and Pingo de Mel in spring.**—I was pleased to read "J. J.'s" note on page 90 referring to the long season that ripe Figs may be had if there is a succession of pot trees. It would be difficult to have better quality for the late supplies. My note now concerns the earliest, and I have had St. John's ripe in February. The two early varieties noted above are not so good in quality as the black Figs. These are a greenish white, rather above middle size, and when not forced too hard the quality is excellent. The fruit is very juicy, deliciously sweet, and forcing can be done when others fail, as the St. John retains its fruit in its earlier



CARPETED WITH CROCUSES. AN EARLY SPRING PICTURE AT KEW.

interests of the farming community cannot fail to give confidence and encouragement to those who think of making Canada their home.

**Crocuses in Grass.**—It is often a matter of difficulty to cover the ground beneath large trees successfully with flowering plants, and the accompanying illustration may perhaps serve as an object-lesson. The Crocuses, now in full bloom, are growing on a grass mound beneath a large tree at Kew, and annually make a splendid display. The Crocus mound, as it has come to be called, is one of the prettiest sights at Kew in early spring. Crocuses are not everybody's favourites, but when they can be used to such advantage in a position where few plants will thrive, it is hardly necessary to say much in support of their usefulness, or, many will allow, in praise of their beauty either.

**A valuable pot Fig (*Bourjassotte Grise*).**—This was one of the four good Figs recommended in THE GARDEN (page 90) by "J. J." for pot culture, and I certainly do not think a better variety exists, taking quality as the chief consideration. Negro Largo is larger, and is by many considered the best of the black or dark-skinned fruits, but, so far as my experience goes, it is not equal to *Bourjassotte Grise*, though Nebian runs it close for quality. This is later,

an absence of about five weeks, I found that several bulbs had already flowered, most of the blossoms being then past their best. Close alongside these early-blooming bulbs a colony of bulbs that flower at the normal time is growing. These never show any sign of foliage until the leaves of the early-flowering section are fully developed. In a Torquay garden I have met with *Leucojum æstivum* in flower contemporary with *L. vernum*, but in my case these early summer Snowflakes have passed out of bloom long before there is any sign of blossom on the spring Snowflake.—S. W. FITZHERBERT.

**The Red Cup Moss.**—The pretty scarlet fungus known popularly as "red cup Moss," the botanical name of which is *Peziza coccinea*, is one of the loveliest of the "common objects" of a country walk in the winter-time. Here and there it may be found in the hedgerow, but, growing as it does on decayed wood, the most likely spot to find it in any quantity is in a damp wood or spinney. In one place, where an old plantation is never touched from year's end to year's end, it occurs annually in great numbers, the little red cups glowing on the dark ground in dozens. Few, perhaps, know what a charming and lasting indoor decoration this cup Moss will provide if artistically

stages of growth better than those of any other variety. I have bracketed the two together, as there is a strong likeness between them. Both are excellent for first supplies, and the trees when started in November will give ripe fruits in March. At the same time I should add they were considered distinct when given awards by the fruit committee some years ago, but it is not necessary to have both sorts, as they ripen together. These very early Figs have other advantages. It is surprising what a number of fruits even small pot trees will produce; indeed, they are too free, as they get overcropped at times. Unlike the Brown Turkey and some others, they are not so good for second cropping, so that they give a full crop at the start and at a season when forced fruits are very scarce.—G. WYTHES.

**Loropetalum chinense.**—A good deal of interest was occasioned by Messrs. James Veitch's excellent exhibit of this plant at the Royal Horticultural Society's meeting on the 23rd ult.; the dwarf plants bore an abundance of their curious flowers with white strap-shaped petals. Many seemed to have the idea that this is a new plant; this is, however, not the case. This *Loropetalum* was introduced in 1880, and ten years ago, on March 13, 1894, it was given a first-class certificate by the Royal Horticultural Society. Since then, however, it appears to have been rarely shown in quantity, yet this is the only way to bring any plant to the notice of the public so that they will not immediately forget its existence. The thong-like petals give the plant its generic name—loron, a thong, and petalon, a petal. It is a native of China, and belongs to the same family as the Witch Hazels. A note in *THE GARDEN* last year thus testifies to the value of this plant for flowering under glass: "One great point in its favour, apart from the beauty of the flowers, is the uncommon appearance of a well-flowered specimen, for at a little distance it seems to be veiled with clusters of white ribbon. It is much less effective as a shrub in the open ground than it is under glass."—A. P. H.

## THE AURICULA.—MARCH.

THE plants during this month will be in full growth, the flower trusses showing, and a few early varieties, if the season be mild, will be in blossom by the end of the month. Sufficient water may be given to keep the soil quite moist, but never in excess, lest the soil become sodden, which will retard rather than promote growth. Air must be given on all safe occasions. The early morning sun will benefit the plants, but in this treacherous month some trying weather may be experienced. Sunny days may be accompanied by a keen drying east wind; the plants if exposed to this will flag, and be greatly distressed. On such days some light shading material must therefore be used, and brought well over the front of the frame where air is admitted, to break the wind as well as to shade the plants, and abundance of thicker material at hand for thoroughly protecting against frost at night. Any extreme or violent alteration of temperature will prevent many pips from properly expanding, therefore every precaution must be taken to avoid this evil.

By the middle of the month many trusses will be well up, therefore attention must be directed more with the object of the development of it and the expanding of the pips than the growth of the plant. Therefore, any expedient must be resorted to to avoid violent changes of temperature, which will retard and seriously injure the delicate texture of the blooms, for after months of patient cultivation no effort must be spared to bring about the fond hopes and expectations of the patient Auricula grower. Offsets may still be removed from the parent plants, and those removed last month may have air gradually admitted,

but if they show signs of distress must be kept closed down until strong enough to take the fresh air without flagging.

*Bishop's Stortford.*

W. SMITH.

## EVERGREEN HOLLIES.

### ILEX AQUIFOLIUM AND ITS VARIETIES.

**MADERENSIS VARIEGATA.**—Like the preceding variety (*Lawsoniana*), this is marked by the large central blotch of yellow on the leaf—sometimes almost covering it—but the leaf itself is not so large, and is narrower in proportion to its length. As is the case, I think, more or less with all Hollies whose variegation is in the centre of the leaf, this has a tendency to revert to the green state.

**Marnockii.**—I believe this fine variety was sent out from the Handsworth Nurseries. It is in the way of *camelliaefolia*, many of the leaves being spineless, and having the same glossy black-green colour. Some of the leaves, however, have a few scattered spines very irregularly placed. The largest leaves are 4 inches to 5 inches long.

**Monstrosa.**—Nearly allied to *latispina*, this differs in having larger leaves, which are sometimes 4 inches long. It is also more spiny, each spine terminating a narrow triangular lobe of the leaf, which stands out half an inch from the body of the leaf. The apex is also drawn out into a long acuminate spine-tipped point. The foliage of this remarkable Holly is a deep lustrous green.

**Muntyi.**—The foliage of this variety is remarkably stiff and rigid in texture, and of a dull green. The leaf is oblong, 4 inches long by 2½ inches broad. In habit it is distinct, being a strong grower, with erect, stiff branches.

**Myrtifolia.**—As its name implies, this charming Holly has small leaves similar in size and shape to those of the Myrtle. They vary from 1 inch to 1½ inches long, and are usually toothed at the margins, but when, as occasionally happens, the margins are quite or nearly entire, the resemblance to a Myrtle is still more marked. The plant has a neat habit, and is comparatively slow growing.

**Myrtifolia aurea.**—The leaves of this variety are rather larger than in the green *myrtifolia*, and are edged with golden-yellow.

**Nigrescens.**—A large-leaved green Holly of rather striking character when well grown. The leaves are 3 inches or more long, lustrous green, and sometimes entire, sometimes spiny.

**Nobilis.**—Of the varieties with large green leaves this is one of the best. The plant has a vigorous habit, and its rich green leaves are sometimes 4 inches long and 3 inches broad. It is distinguished also by its formidable spiny teeth, which are occasionally half an inch long.

**Ovata.**—Numerous as the varieties of Holly are, it is doubtful if there is one quite so distinct from all the others as this. I have heard it suggested that it may be a hybrid between our native *Ilex Aquifolium* and the American *I. opaca*, but this seems very doubtful. It is a shrub of only moderately quick growth and somewhat close in habit. The leaves are very uniform in size, from 1½ inches to 2 inches long, and ovate; they are of a peculiarly stiff texture, and the marginal teeth are small and very regularly set. The young branches are purple, and the foliage is of a lustrous black-green. The largest plant at Kew is 18 feet high and 12 feet in diameter.

**Pendula.**—The common weeping Holly is, when well grown, one of the most effective of

lawn trees. There is a fine specimen in the Knap Hill Nursery, and some good ones also at Kew. Plants increase but slowly in height when left to themselves so pendulous are the branches, and we find it necessary to train up a few leading shoots occasionally to enable the plants to gain in height. The foliage is very much like that of the common Holly, but usually somewhat larger. The "silver" and "golden" weeping Hollies are referred to above under *argentea* and *aurea* respectively.

**Platyphylla.**—This is one of the well-known, large-leaved green varieties, notable for the deep dull green of its foliage, its robust habit, and thick-textured leaves. Its fruits are large and deep red, and the seed, whilst producing a proportion of common Holly, yet comes largely true.

**Recurva.**—A curious, small-growing Holly, remarkable for its twisted, channelled, convex leaves, the spines of which are very large in proportion to the size of the leaves, for the latter are only from 1 inch to 1½ inches long, and narrow.

**Scotica.**—The most striking character of this Holly is the almost entire absence of spines on the leaves; even the apex is usually blunt. In other respects it is a useful sort, being a good grower, and having small or medium-sized leaves of a very dark lustrous green. The leaves of *Scotica aurea* have a golden margin.

**Smithiana.**—Except that the leaves are dark glossy green without the purplish tinge of *donningtonensis*, this variety is very like the latter. The leaves are long and narrow (scarcely more than 1 inch wide), and the toothing irregular.

**Watereriana.**—A well-known and very popular Holly, and amongst the very best of the golden variegated ones. It is a well-marked variety both in habit and foliage. Being of low, compact growth, it is particularly well adapted for formal gardens, little clipping being necessary to keep it in shape. The leaf is medium-sized, usually quite free of spines, the dark green centre being edged by a band of yellow. Sometimes half or all the leaf is yellow.

**Whittingtonensis.**—Of a similar type to the previously-described *smithiana* and *donningtonensis*, this variety differs in having larger, more regularly toothing leaves than the former, and lacks the purplish tinge and very irregular toothing of the latter.

**Wilsoni.**—This is a very fine, big-leaved, green variety. The leaf is elliptical, 4 inches long by 3 inches broad, and armed with large marginal teeth. A variety bearing large red fruits.

*Kew.*

W. J. BEAN.

## THE FLOWER GARDEN.

### CLOTHING BUILDINGS WITH PLANTS.

PLANTS may be often seen clothing the walls of all descriptions of houses, &c., from the castle to the cottage. By their use a dull or even ugly house may be made presentable, but the selection must be made according to the building. Plants that are suitable for clothing the walls of buildings are fairly numerous, so that adequate choice may be made to meet any case, and varied tastes can be gratified. If flowering climbers are preferred, a selection may be made from the following: *Ceanothus*, in something like a dozen kinds, including the remarkably beautiful, though, unfortunately, somewhat tender, *C. veitchianus*, which should be given protection during severe weather. The *Clematis*, again, may be had in great variety, both in hybrids and species, of which

*C. montana*, that produces an early and dense profusion of small white blossoms, should not be overlooked, though most of the garden hybrids are much more showy. Those of the Jackmauni section are particularly hardy. Amongst the big family of Passion Flowers *P. cœrulea* and *P. c. Constance Elliott* are quite hardy, and the latter, especially when furnished with its lovely white blossoms, is very charming. Of *Wistarias* *W. sinensis* is the best climber, and, once it becomes well established, it yields during May and June graceful clusters of beautiful mauve flowers in abundance, but owing to its strong growth it should be given ample space. The finest of all flowering plants for a suitable building, however, is *Magnolia grandiflora*, and of this the Exmouth variety is the freest. Its magnificent and powerfully scented flowers and fine foliage are fairly familiar. This *Magnolia* is not perfectly frost proof, and requires protection in severe winters. Amongst other free-flowering hardy shrubs that are more or less adapted for planting against walls the following deserve notice: *Escalonia*, *Pyrus*, and *Lonicera* (Honeysuckle) in variety; *Forsythia suspensa*, &c.; *Jasminum nudiflorum*, *J. officinale*, and *J. revolutum*; *Fuchsia Riccartoni*. One of the most charming sights of the kind that I have seen was the front of a cottage covered with this graceful hardy plant in blossom. Other desirable, though somewhat tender, plants belonging to this division are *Choisya ternata*, *Chimonanthus fragrans*, *Garrya elliptica*, *Pittosporum Tobira*, and the hardiest *Camellias*. The latter succeed well in Cornwall and similar favourable climates, while the lovely new *Carpenteria californica* should be given a trial.

Ornamental berried plants are represented by *Cratægus Pyracantha crenulata* and *C. Lelandi*, which succeed splendidly upon northern aspects, and *Cotoneaster microphylla*, *C. Simonsii*, &c. Then amongst plants of neat growth there are *Azara microphylla*, the inconspicuous blooms of which have a distinct vanilla scent, the Myrtles, *Pomegranates*, &c. For affording a display of elegant foliage during the summer and autumn months, there are some valuable deciduous climbers, including *Vitis Thunbergii*, *V. Coignetæ*, *V. flexuosa*, *V. f. major*, &c., *Ampelopsis Veitchii*, *A. hederacea*, *A. h. muralis*, &c. The leafless winter condition of these otherwise effective plants is, however, certainly a drawback to them. The Ivy, which is undoubtedly one of the most hardy and generally useful of all wall-clothing plants, must not be omitted. There are many varieties,



THE IVY-COVERED COUNCIL HOUSE AT CHISWICK.

including beautiful golden and silver variegated forms, which, together with choice green varieties, are too numerous to particularise here.

Then these notes would be very imperfect without reference to the Rose, the most desirable of all plants, when properly selected, for planting against suitable walls. The most useful varieties for this purpose are to be generally found amongst *Teas* and *Noisettes*, and such kinds as the following are very useful: *Alister Stella Gray*, *W. A. Richardson*, *Maréchal Niel*, *Celine Forestier*, *Rêve d'Or*, *Mme. Alfred Carrière*, *Reine Olga de Wurtemberg*, *Reine Marie Henriette*, climbing *Niphetos*, *Gloire de Dijon*, *Mme. Berard*, *Belle Lyonnaise*, *Longworth Rambler*, &c.

T. COOMBER.

#### DAHLIA PLANTING PREPARATIONS.

THE best of advice given to Dahlia cultivators, and especially to those who grow for exhibition

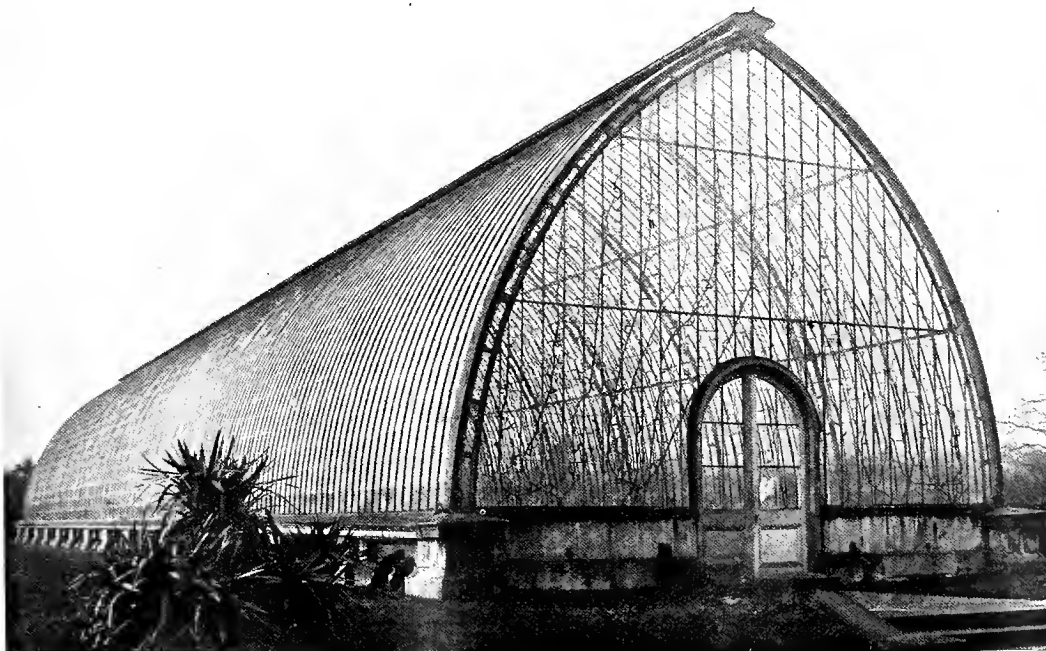
purposes, is to prepare their ground for planting in good time. A deep trenching before Christmas, or as soon after that season as possible, is highly desirable. It is then best able to assimilate all those fertilising and ameliorating influences bounteous Nature bestows on the soil. It is simply necessary to trench the ground; no manure needs to be mixed with the soil at the time; then it may remain until planting time. I am, of course, presuming that a plantation of the leading varieties of Dahlias is grown for exhibition purposes. In the interim there is the growing on of the plants, so as to have them as vigorous in growth and as well rooted as possible. The first and second weeks in June are early enough to plant out with safety. The ground to be planted should be marked out and the positions of the plants determined; they should be from 5 feet to 6 feet apart each way, so as to admit of a free passage of the cultivator among them. At planting three or four spadefuls

of earth are taken out of the hole, and pretty well the same quantity of well rotted manure placed in it, and well mixed with the remaining earth in the hole. Some fine soil should be ready to hand at the time to place about the roots of the young plants and a stake for the support of the main stem. Amateur growers of the Dahlia who may order young green plants and receive them early in May should keep them close for two days if they have been closely packed for transit, then replot them, and be careful to keep them growing into sturdy plants, repotting once more if necessary.

R. D.

#### HABROTHAMNUS (CESTRUMS) IN THE FLOWER GARDEN.

HABROTHAMNUS are seldom seen outside the greenhouse or conservatory, yet when grown into specimen plants from 6 feet to 8 feet high they make lovely plants for grouping in the flower garden in summer. Grown in fairly large pots, and plunged to the rim in the turf in a group on the lawn, they bloom freely till very late in the summer, and when frost is likely to set in they can be removed to the conservatory, where they will still bloom very freely till after Christmas. Three very free-flowering useful kinds which group well together are *Habrothamnus Newelli*, *H. aurantiacus*, and *H. Smithii*. These will make a lovely group



THE FAMOUS VINERY, ONCE A SHOW HOUSE. (Length 150 feet, width 30 feet, height 26 feet.)



INTERIOR OF ONE OF THE OLD CHISWICK VINERIES.

that will throw quantities of excellent flowers, which are much finer than when under glass. The plants grow freely in good fibrous loam and leaf-mould. During the summer they should be top-dressed at intervals of about three weeks, with a mixture of loam, wood ashes, and bone-meal, and watered about twice a week with weak guano and soot water.

Sandhurst Lodge, Berks.

W. J. T.

## THE LILIES.

(Continued from page 157.)

**LILIIUM GRAYI** (S. Wats.), Asa Gray's Bell-flowered Lily.—A very pretty species from the Alleghanies of Virginia and North Carolina; it is closely allied to *L. canadense*, but differs considerably in its roots and the shape of its flowers. Bulbs annual, the new growths being thrust 3 inches to 4 inches distant by a stout ivory-white stolon; the scales numerous, very stout, white. Stems slender, hollow, rooting but sparsely below, 3 feet to 4 feet high. Leaves in four to five whorls, a few scattered above, narrowly lance-shaped, thin in texture, scarcely at all recurving. Flowers borne in a

grow than its close ally *L. canadense*, as it requires much less moisture and shade. Its bulbs are larger and stronger, and its rooting powers altogether greater. The situations and uses advised for *L. canadense* will suit this plant also, but the drier conditions are more beneficial, and it may be also usefully employed in the well-tilled plant border. One can flower the plant well in pots, but it soon perishes when thus treated.

*L. Hansonii* (Leicht.), Hanson's Orange Martagon Lily.—A very beautiful Japanese species, that proves exceptionally easy to grow in all soils and situations provided it is not frozen whilst in growth. Bulbs white, conical or globose, larger than a hen's egg. Stems bright green, 3 feet to 5 feet high, rooting from the bases under good cultivation, nodding at the top. Leaves whorled below, scattered above, bright green, flaccid, 6 inches long below, smaller above, lance-shaped. Flowers six to ten in a nodding raceme, closely arranged, the buds heavy and markedly channelled. The petals are acutely triangular, very stout, and they do not reflex to the extent of Martagon. Colour a rich golden orange, spotted purple below. Each flower is 3 inches to 4 inches across, and lasts a long time in good condition. Common in cultivation. Flowers in June.

**CULTURE AND USES.**—This is one of the best garden Lilies, succeeding in all manner of soils, provided they are well tilled. It likes a warm and sheltered situation. Its early growth, and the fact that the buds are visible in a young state, render protection from late frosts absolutely necessary. The bulbs should be planted in late autumn in order that they may re-establish themselves before winter, and it should be noted that the feeding roots are at the base, hence the soil beneath them

drooping umbel of eight to ten on long nodding foot-stalks, colour reddish crimson, densely spotted internally with maroon-black from the tips to the base. They are bell-shaped, 2 inches across and 3 inches long, and the tips do not reflex as in *canadense*, and the large chocolate-coloured anthers fill up the tube. A neat, pretty species, rather sombre in colour compared with *canadense*, but a much better plant to grow. Common in cultivation. Flowers in July.

**CULTURE AND USES.**—This dainty

Lily proves easier to

should be well worked and enriched; the roots from the stems are naturally feeble, though capable of being developed to a useful extent by liberal surface cultivation. In light soils the bulbs tend to split up into countless offsets, incapable of flowering well unless helped to develop fully. This Lily grows magnificently in pots, and we have found it more satisfactory to use large pots that would hold four to six bulbs each, thus forming a good specimen. The bulbs need not be buried so deeply as is usual with stem-rooting kinds, as their basal roots need space for development.

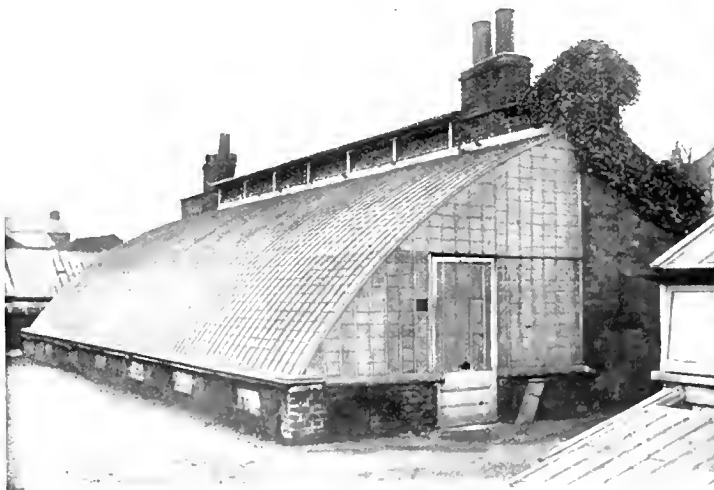
G. B. MALLETT.

## THE ROCK GARDEN.

A CORNISH ROCK GARDEN.

**M**ID-FEBRUARY is not the time that one would voluntarily choose for visiting a rock garden, but, though at that season of the year there is but little blossom to be seen, the plants are there, and, looking forward with the eye of faith, one can realise the effect they will produce when brighter suns and warmer weather shall have enabled them to attain the zenith of their display. I therefore welcomed the opportunity of renewing my acquaintance, even at such an early period of the year, with a rock garden constructed rather less than three years ago, and of which I expect great things in the future. The ground which it occupies is perfectly flat, and thus does not lend itself naturally to the formation of a rock garden, but, as it has been raised in places, and constructed with many rock masses of large size and smaller fragments judiciously arranged, sites where the plants may enjoy the fullest sunshine or complete shade, with alternations between the two extremes, have been abundantly provided. It occupies a considerable extent of ground, and already contains a very large selection of rock and other plants, all of which are apparently enjoying the best of health, though, as the garden is of recent construction, they have not, up to the present, as completely furnished it as they will have in the course of a few seasons. The grit of disintegrated rock is largely used in planting with the best results, and seeds sown in this without any admixture of soil are found to produce strong and healthy plants.

To enumerate all the plants to be found in this garden would fill some columns, so I will confine my remarks to a few of the most interesting. Of Saxifrages there was a large collection; *S. Boydii*, generally considered a difficult plant to grow, was in splendid health, as was *S. burseriana* major. *S. oppositifolia*, *S. juniperina*, and *S. retusa*, which also sometimes give trouble, had made fine patches, and were evidently contented with their sites and surroundings. A good plant of *S. Griesbachii* was in flower, the crimson flower-heads and stalks showing up conspicuously from their background of silvery rosettes. *S. pyramidalis*, *S. longifolia*, *S. Cotyledon*, and *S. lantoscana* were represented by many fine specimens, and *S. Wallacei*, *S. Rhæa*, and *S. Rhæa superba*, of which there were several plants, were excellent. *S. valdensis* showed large bosses of tiny silvery rosettes, and of other Saxifrages I saw *S. sancta*, *S. apiculata*, *S. calyciflora*, *S. guthriana*, *S. muscosa*, *S. m. purpurea*, and *S. macnabiana*, while the annual *S. Cymbalaria* had seeded itself freely everywhere, to be uprooted where it interfered with any more valuable neighbour. Of Sedums and Sempervivums there were large and representative collections, and many Opuntias and Aloes were also in good health, as was a *Dasylyrium* that had been out unprotected for two winters. Amongst other plants were included *Alsine Rosani*, several *Androsaces*, all of which had done well, many species of dwarf *Campanulas*, *Caragana aurantiaca*, a fine clump of *Celnisia Munroi* in an elevated position, which flowered well last year and was in robust health, the bulbous *Clidanthus fragrans*, several of the *Dianthus* family, of which



AN OLD-FASHIONED ENGLISH PLANT HOUSE AT CHISWICK.



*D. alpinus* was in an especially flourishing condition, *Dryas Drummondii* and *D. octopetala*, both forming spreading mats of foliage, *Edrianthus* (*Wahlenbergia*) *tenuifolius*, *Frankenia laevis*, *Genista humifuga* amongst several of the dwarf Brooms, *Gutierrezia Euthamiae*, *Helianthemum lunulatum* and *H. Tuberaria*, a large patch of *Houstonia serpyllifolia*, *Hymenanthus crassifolia*, a breadth of that charming little annual *Ionopsidium acaule* in full flower, *Linum monogynum* and *L. alpinum album*, *Margyricarpus setosus*, *Melaleuca ericoides*, *Nepeta Mussini*, *Nierembergia filicaulis*, *Ostrowskia magnifica* throwing up strongly, the Shamrock Pea, *Parochetus communis*, which had spread over a large patch of ground, *Parrya Menziesii*, *Pourettia mexicana*, many *Primulas*, of which a colony of *P. scotica* nestling beneath a large overhanging rock was showing signs of vigorous growth, *P. megasefolia* in flower, and a healthy patch of *P. frondosa*.

*Ramondias*, *Shortia galacifolia*, and *Silenes* of sorts were abundant, and beneath a rocky ledge *Soldanella alpina* was blossoming. *Spigelia marilandica*, *Teucrium pyrenaicum*, and *Wulfenia amherstiana* were represented by good examples, and of dwarf *Veronicas*, *V. anomala*, *V. pectinata rosea*, the little shrubby *V. Hectori*, *V. loganioides*, and *V. cupressoides* were noticeable. Alpine *Rhododendrons* were in full bud, *Azalea procumbens* covered a flat rock with its trailing stems, and the dwarf Willow *Salix serpyllifolia* showed its prostrate growth. *Cotoneaster congesta* spread over a rocky mound, and on another the curious and rarely-seen *Rubus australis* was making strong growth. This will have to be severely kept within bounds if it is not to become a nuisance, for an unpruned example in the south-west has completely smothered neighbouring evergreen shrubs, and has even invaded the branches of an adjacent Fir tree. In Grasses and Rushes, of which many species were present, the Corkscrew Rush, *Juncus spiralis*, the maroon-leaved *Aspera arundinacea*, the pretty *Macrachloa tenacissima*, and *Acorus gramineus variegatus* were interesting, and a small specimen of *Pinus australis* was present.

S. W. FITZHERBERT.

## NOTES ON HARDY PLANTS

### HARDY FLOWERS IN SEASON.

**S**TERNBERGIA FISCHERIANA.—Owing to its free winter-flowering habit this is, perhaps, the most valuable of the many more or less distinct forms. It differs from the autumn-flowering ones in the distinct pale green foliage, usually contemporary with the flowers, which have a very short tube, and are erect, funnel-shaped, and pale yellow in colour, flowering throughout the winter till March.

*Colchicum libanoticum*.—This is one of the most showy of spring or winter-flowering plants. The corms (or bulbs) are small and oblong; the foliage is short and erect, enclosing the flower-tubes of two to twelve, or perhaps even more, erect bright rose-coloured flowers. This species is very hardy. I have plants here during frost that have not even lost the bright rose colour of the flowers, while another form had the open flowers destroyed. *C. Stevensii* is allied to *C. libanoticum*, but not so vigorous, and the leaves are linear and longer than in the



IN THE CHISWICK GARDENS: PLANE TREE AND COUNCIL HOUSE.

former. The flowers are very variable, ranging from rosy lilac to white, and appear from November till March. It is more tender than the former, and not so showy. *C. hololophum*, also known as *C. montanum* or *C. bulbocodioides*, might be best described as a miniature form of *C. libanoticum*. The corm is small, oval, and the erect leaves are linear-lanceolate. The flowers are smaller than in *C. libanoticum*, and are rose, with the tips of the segments paler. *C. luteum* is a very rare species; the only one with yellow flowers. The corm is oblong, and the leaves are linear. The flowers are small or intermediate, of a bright yellow colour. *C. crocifolium*.—The leaves are linear and slightly hirsute; the numerous small flowers are globular, white or flesh-coloured, the exterior of the segments brownish.

*Merendera caucasica*.—A fine and quite hardy plant, with an ovate corm like that of some of the small winter or spring-flowering *Colchicum* species. The leaves are recurved, and the pretty flowers are rose-coloured, not unlike those of *Colchicum libanoticum*. *M. robusta* has a small,

elongated corm, while the leaves are lanceolate, with serrulated margins. The handsome flowers are bright rose. This is the largest of the genus.

*Corbularia monophylla* (*Narcissus Clusii*).—Although the prettiest of the small genus *Corbularia*, this is comparatively seldom seen in good condition, owing, no doubt, to the fact that the bulbs do not ripen well in this country, and, unless grown under glass, imported bulbs (which are not always in first-class condition) will only flower once, and then either only produce leaves the following year or refuse to start at all, although the bulbs to all appearance are there and in good condition. The bulb is small, globular, with a hard black covering. Small bulbs often have only one leaf, but larger bulbs have from three to five filiform leaves from 9 inches to 18 inches long. Each bulb bears from one to three large funnel-shaped, pure white, slightly fragrant flowers. Potted up in September in light sandy soil, several bulbs in a pot, and grown in a cold frame, they may be expected to flower from about the end of December till March. If potted up still earlier, and after a while put in a gentle heat, they will flower in November.

*Iris Histrio* has an ovate bulb, covered with a pretty white netted tunic. The handsome, large flowers are pale blue, of which the upper part of the falls is beautifully veined and marked with white, with here and there a spot of yellow or red. Imported bulbs from the Lebanon flower the first year. If planted or potted up at once they flower usually at the end of December or January, but home-grown bulbs flower about February. *I. Vartani* is closely allied to the former, and flowers about the same time. It differs from *I. Histrio* in the shorter bulb, more erect, four-sided leaves, and purplish blue flowers, without the distinct veining of the former. In *I. histrioides* the bulb is similar to that of *I. Histrio*, and the leaves, which appear with the flowers, are nearly erect; the flowers are large and blue, the falls veined whitish or lilac. *I. histrioides major* is a form of which the flowers appear first and leaves follow. The flowers are not much larger than in the type, but are of a distinct bright blue, the falls slightly veined with white. If not quite so plentiful as the type, it is more vigorous and produces seeds more freely, bidding fair to become in time as plentiful as the former, of which at present the supply is kept up by annual importations. *I. sopenensis*.—The bulb in this form is small and oblong, and the leaves, which appear after the flowers, are very slender. The flowers are spreading, and the colour is a decided purple. This is a rare plant, but not as showy as either *I. Histrio* or *I. histrioides major*. *I. bakeriana* is a very rare and beautiful form of *I. reticulata*. The bulb is ovoid, and the leaves are cylindrical and with a horny point. The showy flowers are large, with the standards of a deep lilac, and the falls are deep violet, with marginal white

and yellow markings; violet-scented, as in the late-flowering typical *I. reticulata*. *I. reticulata purpurea* (*I. Krelagei*).—The commonest of this section; the flowers are very variable. When first opening they are deep purple, with a central golden-yellow ridge on the falls, changing, however, often to a pale or dull purple. They are not scented.

G. REUTHE.  
Keston, Kent.



THE CENTRAL WALK IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS.

### CHRISTMAS AND LENTEN ROSES.

HELLEBORUS includes both the Christmas Roses and Lenten Roses. Of the Christmas Roses the finest and most satisfactory were

the true *H. altifolius*, the most vigorous. In favourable positions the leaves attain a height of 3 feet, and the flowers appear from early November till March. I have a bed here unprotected which has been quite a sight through the whole winter, and, though I have cut many of the beautiful large white, slightly rose-tinted flowers, the plants still throw up new flowers. By covering the plants in flower with a hand-light, basket, or box for a short time the flowers come pure white. The next best Christmas Rose is the variety called *St. Brigid*. It flowers later, being usually at its best during December and January, and is not quite so lasting as *H. altifolius* or *maximus*, but it has long, bright green leaves and pure white flowers. Unfortunately, this plant is not quite so vigorous and often refuses to thrive, while the former will grow almost anywhere. The Lenten Roses are not at their best yet, although some of the *H. orientalis*, *H. colchicus*, and others have flowered since Christmas. There are no pure whites among these, only a greenish white, deep purple, reddish, and crimson spotted.

G. REUTHE.

### WINTER HELIOTROPE.

(*TUSSILAGO FRAGRANS*.)

This is a weedy plant, which in some parts of England has taken possession of whole hillsides. It is best grown in the wild garden or border, where it can be kept in its proper place. It is grown for its flowers, scented not unlike the Heliotrope, and appear throughout winter and spring. On the Continent, where the winters are more severe, the roots are put in boxes and forced for cut flowers.

G. REUTHE.

## ROSE GARDEN.

### FORGOTTEN ROSES.

It is not surprising that owing to the numerous new Roses many of the excellent older sorts have been crowded out. Beautiful as the Hybrid Teas unquestionably are, I think it will be a bad day for lovers of the Rose if they allow this group to drive out of cultivation many old and well-tried varieties of other classes that are too good to suffer extinction. I often wish there were a National Rose Garden, where every variety could be planted, so that rosarians could see for themselves the true value of each. How some of our much-praised Roses would have to give place to those less known but better, at least in the matter of "doing well" and in point of colour.

I append a list of a few varieties that are comparatively unknown, yet I can recommend every one with the full assurance that they would please the majority of the readers of *THE GARDEN*. Among what are regarded as climbing Roses not one of the Rambler race can surpass

*Mme. d'Arday*, with its great erect clusters of flesh-tinted flowers. It is very strong and very suitable for climbing over trees or for pillars.

*Robusta*.—As its name implies, this is a very vigorous grower, allied perhaps to the Bourbons, yet not so good in the autumn as the group generally. The colour is very vivid, just the tint of Louis Van Houtte. What a fine Rose to breed from!

*Joseph Bernacchi*, with its long buds, is as much a Tea Rose as *Gloire de Dijon*, yet it is grouped with the Noisettes, a somewhat mixed-up class to

what it used to be. This variety is very pale yellow, and a grand Rose for bold bedding. So also would be

*Germaine Trochon*, for it is one of that excellent type represented by *Gustave Regis* and *Billiard et Barré*, that flower freely upon long, erect growths, making them such excellent Roses for bedding where a tall grower is needed.

*Mme. Jules Siegfried* is one of the best climbing Teas, colour creamy white, foliage grand, and altogether first-rate, although not found in many catalogues.

*Monsieur Desir* is one of those Roses that possess just a tint of violet, a colour to which many object, but in reality the violet shade is an attraction, blended as it is with velvety crimson. The buds of this Rose are perfect and its foliage very beautiful. Why will not nurserymen grow such Roses

*Gloire des Rosomanes*. Seen at its best in autumn, it is a lovely Rose, of glowing colour and free, grand for bold bedding, low pillars, short fences, and any similar purpose or position. Another Rose closely allied to the Bourbons is

*Mme. Pierre Oger*, and it is one of the daintiest coloured varieties I am acquainted with; I may also say one of the most beautifully formed. Why cannot the National Rose Society institute a class for the most complete "collection of Roses seldom seen at exhibitions?" This would bring out many a gem that is unknown except to the few. In such a class there should be no limit as to how few flowers of each may be shown. A single spray of a sort would be sufficient in most cases.

*Mosella*.—One of a small group known as Hybrid Polyanthas—rather a misnomer, seeing that all are hybrids—but practically this Rose is nearer the Teas.

*Mme. Fanny de Forest*, a white Rose of exceptional merit, larger and better than *Boule de Neige*, and less inclined to malformation.

*Comtesse Panisse*.—One of the very best Teas grown. It is sturdy, of easy culture, and has thick-petalled, delicately-tinted flowers.

*Jean Pernet*.—A Tea Rose that is not grown half so much as it should be. It is vigorous, and the flowers are not inclined to split. Colour, a rich cream. A few good Hybrid Perpetuals will conclude my list. Foremost among these I may name

*Duke of Connaught*.—It is one of the most beautiful, with its crimson velvety shaded buds. It is a first-rate Rose for buttonholes.

*Mme. Joseph Bonnaire*.—A rival to *Paul Neyron* as regards size. A wonderful Rose when well grown. Perhaps rather addicted to mildew. The colour is silvery blush-pink.

*Mrs. F. W. Sanford*.—A counterpart of *Mrs. John Laing* in all save colour. This is very delicate blush white. Certainly a Rose to be planted freely where the older sort is valued.

*Mme. Eugene Fremy* is another of those extra large showy Roses of which *Paul Neyron* is a type. If they lack something in refinement, there is that sturdy vigour about them that one admires so much in garden Roses.

PHILOMEL.



BENNETT'S SEEDLING ROSE OVER AN OLD TREE.

upon standards? They make far better heads than the dumpy *Xavier Olibo* type.

*Fanny Stolwerck*, with its mixture of copper, yellow, salmon, and carmine, is very charming, but it is scarcely known.

*Le Soleil* is quite good enough for exhibition, and as a yellow Rose is first-rate. The texture of the petals is remarkable. I prefer this to the tender climbing kinds, such as *Henriette de Beauveau*, even though the colour be not so intense.

*Queen of the Belgians* is an Ayrshire Rose that few growers are acquainted with. In refined form and delicacy of colouring it reminds one of the Tea climbers. It is excellent for pergolas, &c. There seems a general desire for brilliant scarlet and crimson flowered Roses, yet how few there are who plant

freely over some support, to smother it with healthy green shoots and clusters of lovely blossoms. The variety of supports that may be used is endless, but few give more pleasing results, because of its simplicity and naturalness, than a worn-out tree made to bear a wealth of blossom not its own. Instead of destroying old trees when they die from old age or disease, how much better it would be to allow some strong climbing Rose to hide their ugliness and transform them into objects of delight—that is, supposing them to be conveniently and pleasingly situated. Bennett's Seedling is a good Rose for this purpose, as the illustration shows, and others that occur to one as equally suitable are *Aimée Vibert*, *Reine Olga de Wurtemberg*, *Reine Marie Henriette*, *Crimson Rambler*, and *Longworth Rambler*. The

### BENNETT'S SEEDLING ROSE OVER AN OLD TREE.

THERE seems to be no limit to the usefulness of the Rose; it can be planted to advantage in perhaps more positions in the garden than any other flowering plant. It is rarely more admired than when some strong-growing variety is allowed to climb and clamber

removal of a good-sized tree is always a matter for regret, and leaves a blank that one does not easily become accustomed to. Why not allow the tree to remain; not, however, gaunt and leafless, but clothed with flowers and foliage that shall give it such a beauty as it never had before?

## ROUND ABOUT A GARDEN.

### THE EARLY PRIMROSES.

THE persistent and prolific flowering of the Primroses this year has been a feature by which the records of many of our shrubberies will probably be headed for many years to come. It is not often in a century that a garden on the bleak East Coast will yield you Primroses for every day, from the week before Christmas onwards to the spring. But the really curious point about the flowering of the Primrose this winter has been the abundance of blossoms in aspects facing north and east. Ordinarily, of course, the earliest spring flowers must be sought in some sheltered southern aspect, but this year the clumps that usually dare not push forth a bud until spring sets in "with its usual severity" in mid-April have been starred with many blooms, all through January and February, while the plants enjoying better situations, facing the warm south, are scarcely so forward as they were last year or the year before at this time.

### A CONTRAST IN SITES.

Although this contrast seems curious, it is not really so. That which regulates the periods of all life in animal or plant upon our exposed coasts is the prevailing wind, and the nip of a wintry north-easter once a week suffices to keep all the spring flowers marking time. This winter, however, we have had no north-easters. Day after day and week after week the weathercock has pointed west or south, or some variant thereof, and, though frost has been rare, the plants enjoying the mild aspects have been constantly reminded to hasten slowly. Those, on the other hand, which in ordinary winters have had to take the consequences of clinging to existence on slopes exposed to blasts that come straight from the North Pole or the Siberian steppes have hardly known this winter that any wind was blowing, since they could not hear it whistling in the shrubbery behind them. No wonder, then, that they mistook January for April.

### THE SPRING FLOWERS' ENEMIES.

But no matter where or when your Primroses or any other early spring flowers may appear, the birds find them out, and it is a sore trial for a lover of the birds to watch a blackbird idly snipping off the heads of Primroses as a sort of relief to the serious business

of worm-hunting. You may see a cock sparrow, too, sitting puffily on the ground, chirping at intervals to a friend upon the roof, and, between chirps, snipping off a blossom or two with that inconsequence which makes the sparrow's ravages in a garden aggravating out of all proportion to their actual importance. So one gets into the habit of putting much more blame upon the sparrow than he deserves. Some, no doubt, of the scattered blooms of Primroses, Irises, and Snowdrops are his work; indeed, you have seen him at it. But, as diurnal animals, we human beings see only one half of Nature's work, and if we had the eyes of owls and could watch the hosts of mice and voles that scuttle about our shrubberies at night, and see the dainty way in which they nibble off the heads of our flowers, we should begin to realise that "those sparrows" are not as black as indignant fancy paints them. Patent self-setting mouse-traps, and plenty of them, form one of the best recipes for abundance of early flowers in a

the sparrow's beak against it, is merely its earlier appearance.

### FAMILIARITY BRINGS SAFETY.

When the yellow Crocuses first appear they are the first very conspicuous innovation in the garden, and the sparrows—of whom the majority are young birds of last year, and have never seen a Crocus before—naturally wish to discover their dietary qualities. By the time the white and blue Crocuses are in full bloom all the sparrows about the place have learned that it is waste of time to snip off Crocus blossoms when there are all kinds of other things pushing up out of the ground and the air is getting more full of tasty insects daily. And from then onwards the sparrow ceases to aggravate by his assaults upon the flowers, and becomes instead one of the most useful of birds, devouring all sorts of insects all day long.

### A HUMAN PREJUDICE.

From this point of view the fault of the sparrow in



ANEMONE PATENS.

country garden. Still, leaving as wide a margin as we may for the depredations and mischief of these little rodents, the sparrow's offences at this season are too flagrant to be condoned. I do not know exactly why it is, but a row of yellow Crocuses, which might be a great joy to behold, lose almost all their charm when strands of black cotton are stretched along them to keep off the sparrows. Yet there are many gardens where, without black cotton, yellow Crocuses can only be seen lying decapitated on the mould. The reason why the sparrow attacks the yellow Crocuses, and leaves the white and blue comparatively untouched, has often been sought in supposed differences between the edible qualities of the flowers and in connexions of ideas which the colours might be supposed to suggest to the sparrow mind, but I am inclined to think that the misfortune of the yellow Crocus, the peculiarity which arms

the spring garden is his enquiring mind, and, as it is only by possession of the same characteristic in a more marked degree that Man has won his way to the very top of Nature's genealogical tree, we might expect to feel the more kindly disposed towards the sparrow's mischief in his search for knowledge. But, just as that which irritates us most in viewing a monkey is its likeness to ourselves, so it seems an aggravation of the sparrow's iniquities that he conducts them with a cunning that has something human in it. E. K. R.

## AN ARTIST'S NOTE-BOOK.

### ANEMONE PATENS.

A DISTINCT form of Anemone Pulsatilla, with longer and more pointed flowers than the type. The growth is stronger and the flower larger than in the species. This, like A. Pulsatilla, is well suited to the border, and if planted in deep sandy loam will quickly become established and increase in vigour each year. The flowers are purplish. This group of Anemones is of much interest in the rock garden too, and I have grown them for many years in a sunny nook, where the plants make bold handsome tufts. V.

## THE FRUIT GARDEN.

### THE PROMISE OF NUTS.

IT is early yet to talk about the prospects of fruit crops in the coming season, but the Cobs and Filberts have already unfurled their little brush-like female blossoms, and, judging from the quantity, they represent a promising show. Greatly as Cobs and Filberts are prized on dessert tables generally in the winter, not much real attention is paid to their culture in the majority of gardens. The credit of growing Nuts on a clearly-defined principle must be given to the Kentish fruit farmer in the districts where this crop is largely represented.

In Kent Cobs and Filberts do well, and are perhaps better treated here than in any other part of the country, but, like other crops, they seem to have their own particular localities, outside of which they are rarely seen. Quite recently I journeyed through that part of Kent which lies between Maidstone and Tonbridge. How long Nuts have formed a staple market crop in this locality it would be hard to say, but a plantation of Cobs will go on for many years under the care of a skilful pruner. On the fruit-covered slopes on the Mereworth Castle estate and in the neighbourhood there are veritable patriarchs in the way of trees, judging from the knotted and goarled condition of the main stems. In the sandy soil round Igham and Wrotham Heath Nuts in many instances form the entire crop.

At the time of the visit referred to the pruning was just completed, and the stiff outline of the closely-cut bushes was relieved by the presence of the male catkins hanging gracefully from the twigs and shaking to and fro in the breeze. At first sight it might appear as if the Kentish Nut pruner were too severe with the knife, but he knows his business, and a closer examination reveals the presence of an abundance of little pink flowers on the twiggy shoots with which the main branches are furnished, as well as a reasonable proportion of male catkins left for fertilising. It is in the early years of its life that the Kentish Nut bush receives its somewhat severe training, and when it has reached the desired size it is not allowed to extend much further. Most of the bushes are shaped like an inverted basin or saucer, with the centre quite open and the main branches springing from a central stem. While the bush is young and when the shoots are pliable the latter are compressed into the desired form, and so the specimen gets its shape, which it never loses afterwards unless it is neglected in the way of pruning.

Only men who are skilled in the work are allowed to knife the Nuts, as judgment is required in cutting, and the pruners go over the main branches one by one with knife and saw, removing all rank growth springing from the centre of the bush, sawing back old dead spurs and shortening all strong lateral shoots, but taking care to preserve the short twiggy growths along the branches. The system is by no means new—in fact, it seems to be half as old as Time itself—but it appears to belong to the county, and I cannot help thinking that it would be a good plan if it could be put into practice in private gardens in other parts where Cobs and Filberts are grown. Cobs are not an expensive crop to grow, and apart from the annual pruning little labour is spent on them. The ground beneath the bushes is kept under cultivation by digging and hosing, but little in the way of manure is required, as this would lead to the production of rank growth, which is undesirable. In many plantations where standard Apples and Plums are grown between the Nuts, the former are manured and the latter get quite as much food as is good for them from the dressing.

Finally, one gathers the idea that a special pride is taken in the Nuts, and it appears to be an understood thing that no part of the general routine of culture must be neglected. Doubtless the knowledge of what would happen in the event of neglect is responsible for the feeling, which is not shared with all fruits, as I have passed through many

plantations in which the Nuts were neatly and properly pruned, and yet the heads of the standard Apples and Plums above represented sheer thickets of growth, and were literally spoiling for the want of timely thinning. Still, whatever may be said about the methods of British market fruit culture and the room for improvement, it must be said that the Kentish Nut grower, taken as a whole, is master of his business, and under his treatment the crop, one season with another, is a source of profit to him. The early promise of 1904 is encouraging, and it is to be hoped that it is a good omen for a better fruit year generally than its predecessor.

G. H. HOLLINGWORTH.

## ORCHIDS.

### CYMBIDIUM GIGANTEUM WILSONI.

AMONG the Orchids shown at the last Drill Hall meeting of the Royal Horticultural Society few attracted more attention than the new Cymbidium, collected in China for Messrs. James Veitch and Sons, Chelsea, and exhibited by them. Orchids introduced for the first time from their native habitats are sufficiently rare to make them more than ordinarily interesting. Mr. Rolfe has classed this new Cymbidium as a variety of *C. giganteum*. The recorded habitat of this species is Northern India, and the date of its introduction 1837. Nicholson calls it "a strong and bold-growing species," a description that would scarcely apply to the variety *Wilsoni* as exhibited at the Drill Hall. A number of experts seemed to think it sufficiently distinct to merit specific rank. The flowers show an attractive association of colouring; sepals and petals are green spotted with brown, while lip and throat are white, heavily marked with chocolate-red.

### WELL-GROWN LYCASTES.

It is rarely that one sees such fine plants of *Lycaste Skinneri* and *Lycaste aromatica* as were shown on the 23rd ult. at the Drill Hall by Mr. F. Du Cane Godman, South Lodge, Horsham. Each plant carried some two dozen blooms or more, and, in company with a plant of *Platyclinis glumacea*, also shown by Mr. Godman, came in for much admiration. The flowers of *L. aromatica* have a curious spicy scent, while those of *Platyclinis glumacea* are so strong and sweetly fragrant as to be noticeable many yards away. The *Lycastes* are natives of Central America chiefly, and are of easy culture, doing best in an intermediate temperature. There are now many beautiful varieties of *Lycaste Skinneri*, distinguished by such names as *delicatissima*, *purpurata*, *superba*, *rosea*, *virginalis*, &c. Mr. G. Whitelegge, gardener to J. Bradshaw, Esq., The Grange, Southgate, exhibited two lovely forms of *L. Skinneri* last week at the Drill Hall. They were called respectively *Beauty* and *Enchantress*, and were of fine form and delicate colouring.

A. P. H.

### WORK FOR THE WEEK.

#### DENDROBIUM PROPAGATION.

To secure good plants before next winter it is necessary that this matter should now be taken in hand. Bulbs that were taken off, as advised in a previous calendar, will now be ready for cutting up; each joint that has not produced flower will make a young plant. I prefer cutting them into single eyes, cutting them rather close to the eye, to allow of the major part of the severed bulb being below the eye to help sustain it, and also to allow of sufficient material to insert without covering the dormant eye.

A simple and safe way to propagate is to make 4-inch pots half full of crocks, over which place some sphagnum, and then fill up with a mixture of two parts sand and one part fine chopped sphagnum. Gently press in the cuttings, not inserting them more than is necessary to keep them upright. Each should then be correctly labelled, and placed on a shelf or similar place in a hot, moist house

where they will be shaded from strong sunshine. Keep the material dry, on bright days giving them a slight spraying over.

Those having bottom-heat and a small case would be able to produce plants much more quickly. In preparing a case it is quite necessary to see that there is no moisture-giving material between the pipes and the cuttings. The case should be filled up to nearly the desired level with crocks, over which place some sphagnum, enough to prevent the sand from working down amongst the crocks, and then place about 1 inch of the sand and sphagnum mixture as advised above. The space should then be divided with stakes laid flat, so that there is only one variety to a section. The cuttings should then be inserted in the same way as when placed in pots. To enable the cuttings to break quickly a good deal of moisture is helpful. Sufficient is generally obtained by keeping the case closed by day and open a little each night, spraying them lightly over on very bright days; but the material must be kept nearly dry. It is far safer to lay pseudo bulbs on a stage for a few weeks before cutting them up.

When the young growths have attained the height of 1 inch they should be potted up in a mixture of one part each of chopped peat, sphagnum, and coarse sand, using very small pots. The earliest ones, if kept in a good hot-house, will often make the first bulb by the end of July. I strongly advise the propagation of a few each year, and when space is a consideration discard some of the old plants.

#### EPIPHRONITIS VEITCHII.

The brilliant flowers of this hybrid always brighten up a house, especially during the winter months. By removing the flowers during the late summer months it can generally be made to flower during February and March. Like *E. radicans*, one of its parents, it should be placed in strong light. The coolest end of the *Cattleya* house suits it well as regards temperature, and during bright weather it should be kept well syringed. Potting may be done at almost any time in a mixture of two parts moss to one part peat. The stock may be increased by taking off the aerial growths and potting them up separately.

Gasston Park Gardens, Reigate. W. P. BOUND.

## THE KITCHEN GARDEN.

### NEW LETTUCES FROM MANCHESTER.

MESSRS. DICKSON AND ROBINSON showed at one of the meetings of the Royal Horticultural Society in the early autumn three new varieties of Cabbage Lettuce, and these were so good that a note at this season concerning them may not be out of place. Two of these, Lord Kitchener and Staghorn, received awards of merit at the great vegetable show at Chiswick. The third variety, Distinction, was seen in splendid condition when shown at the Drill Hall earlier in September, this firm at that date staging no less than sixty-nine varieties. Lord Kitchener is a medium grower, with solid heart, the leafage is of a delicate yellowish green colour, and, what makes it more valuable, it remains good for a long time after being fully matured. This is a great advantage in a summer Lettuce, as some of the older varieties bolt so quickly. But the most important point growers have to consider with new vegetables is the flavour. Certainly Lord Kitchener is not behind in this respect. It is of exquisite flavour, the leaves are crisp, and the plant builds up solid hearts, having very few outer leaves.

Staghorn is quite distinct from the last-named, and doubtless takes its name from the cut leaves. These are pointed and lacinated, and have a very attractive appearance; indeed, it might at first sight be taken for a well-grown Endive. The growth is very compact, and it makes an excellent salad or garnishing plant. For the salad bowl this should be most valuable, the hearts being very solid and white, while it should also be useful for exhibition. In quality it is not unlike a good Endive. This

variety was much admired in the collection referred to, which so deservedly won a gold medal.

The other Cabbage variety, named *Distinction*, is, in my opinion, well worth bracketing with *Lord Kitchener* and *Staghorn*. It is a much larger Lettuce, and size is valued in many gardens if the quality is good. It is remarkable for its sweet flavour, bright green colour, and its long standing. It is very slow to seed, and being a rapid grower makes a splendid summer Lettuce. This should make a valuable market sort.

I now come to the Cos varieties, and in Messrs. Dickson and Robinson's collection there were two that stood out prominently, viz., *Dickson* and *Robinson's Giant Market* and *Little Gem*; these in appearance differ greatly, but are most valuable additions to the Cos section. I do not think that in private gardens the Cos has so many admirers as the Cabbage Lettuces, and this is owing to the more rapid growth and compact habit of the latter. Those who like this type will find in *Little Gem* a valuable early variety, and most serviceable either for frame culture or earliest supplies on sheltered borders. I am aware that we have some very good Cos Lettuces in the older varieties, such as *Superb White* and *Mammoth White*, *Ivery's Nonsuch* and *Balloon*, but no matter how good these are, superior new sorts are welcome. It was a great surprise to growers to see so many really excellent varieties, both of Cos and Cabbage Lettuce, as shown by Messrs. Dickson and Robinson.

The *Giant Market*, as its name implies, is sent out as a superior market variety, and in these days, when so many growers sell their surplus supplies, it may be termed a profitable variety on that account. A Cos Lettuce that has large and broad leaves to be profitable should be compact, the foliage should not require tying. The *Giant Market* possesses these good points, and in addition is very slow to run to seed. The flavour is very good, the leaves remarkably tender and crisp, and the hearts attain a large size. *Little Gem*, as its name implies, is small though good, but I am not sure that this name is the best, as there are others called *Little Gem*, and it is such an easy matter to get confused. The variety in question is a splendid addition on account of its size and earliness. It is dwarf, self-folding, having yellowish green leaves, and of splendid quality. It requires very little space, and one plant often makes two or three distinct growths. It makes a most useful salad Lettuce in the early spring. It is also valuable for autumn sowing. G. WYTHES.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### FRUIT TREE PRUNING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Messrs. Thomas and Tallack have recently had considerable wordy warfare in the pages of *THE GARDEN* upon the above subject, ostensibly for the edification of the amateur cultivator, who has my entire sympathy when he endeavours to put such conflicting statements into practice. He may well exclaim "When doctors differ who shall decide?" The fact is that in this controversy extraneous matter has crept in for summer and winter pruning, and various forms of tree pruning have become muddled up together. Consequently, both combatants are right in some points and both wrong in others; indeed, as is usual, the real truth lies between the extreme views advocated. I have long advocated true extension pruning to the fullest extent of that method, but I certainly cannot agree with Mr. Tallack (page 402, vol. lxiv.), where, in speaking of a young tree, Apple, Pear, Plum, or Cherry, two or three years planted, he says: "Let the annual leading shoots remain intact, confining the pruning to cutting clean out any useless or badly placed shoots." Whether summer or winter pruning or both is not clear. He also repeats an assertion (page 44):

"That the knife applied to the main leads never yet assisted in the production of fruit-buds on a tree that has not reached its prime." Possibly not, neither is it desirous for our young tree only two or three years planted to produce flower-buds so profusely. On the contrary, we should remember rather that we are only laying the foundation of a permanent character, and our chief object should be to build up our model tree with stout and strong well-regulated branches, every one of which should ultimately become a perfect cordon of fruit-spurs from base to summit, capable of rigidly supporting its allotted weight of high quality fruit without danger of breaking off.

Now let us take the case of Plums in particular. Where frequently shoots or leads are annually made at this stage 4 feet, 5 feet, and upwards in length (strong-growing varieties of Apples and Pears nearly as much), it is our experience that if these leading shoots or leads are left intact and not shortened at all at the winter pruning (they should not be stopped at the summer pruning) these foundation or principal branches are seldom sturdy or strong enough to carry the necessary weight of fruit over the ripening stage



MR. S. T. WRIGHT.  
Superintendent of the R.H.S. Gardens, Chiswick.

in years to come without breaking off, and the consequent loss, with permanent injury to the tree. The lower half of these unstopped long shoots seldom breaks or forms spurs or other growth, but remains bare for ever. On the other hand, if these long shoots or leads are at the winter pruning shortened, not exceeding one-third of this from foot-growth, and always cutting to an outward pointing bud, better results will be obtained and the above dangers avoided. This treatment cannot be considered hard pruning, but really the truest form of extension pruning for such trees of the aforesaid age.

We also cannot concur in the statement of "confining the pruning to cutting clean out," &c. Now really with the above kinds of trees and at this age there cannot be anything worth mentioning to cut clean out, but we prefer to stop all lateral growth not required for leads to about three or four full-sized leaves about the end of July or August, according to season, so as to admit air and sunlight into the middle of the tree to assist in the thorough development of the fruiting spurs, and to prevent a waste of power in permitting growth which would necessarily have to be removed at the winter pruning. Of course, the leaders are all left unstopped at this summer pruning; moreover, they act as a kind of safety valve, and generally prevent the growth of sub-

laterals—i.e., the secondary growths of those recently stopped laterals.

There are other reasons for removing the tips or extremities of the leaders. One reason is that quite the tips of the shoots are formed too late to become thoroughly ripened, and it can hardly be expected to get clean, kindly shoots from unripened wood, especially in the choicer and more delicate varieties. Besides, if there should be any insect pests about, such as the winter moth or allied species, which lay their eggs in the autumn or early winter months, it is in the scales or tips of the unripe shoots that they are usually deposited, but which this shortening removes. The growth that follows is certainly of a more kindly nature, leading to infinitely better results than leaving the leading shoots intact.

The foregoing is a summary of my own very long experience; it has been part of my duty for upwards of twenty-one years to raise the trees and establish fruit orchards for tenantry on a large scale for commercial purposes in the most expeditious manner; upwards of 20,000 fruit trees, chiefly standards for orchards, have been dealt with.

Madresfield Court.

W. CRUMP.

### CLEARING ROUGH WOODLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The clearing of rough woodland or open coppice of noxious weeds and other objectionable growths is by no means so formidable a task as you state in reply to a correspondent in *THE GARDEN* of February 20. Here on the Kentish uplands we are used to that work. I have a piece in hand now which was planted with fruit trees after the wood was cut, and then for two years allowed to go wild, though that is not a usual practice. The Brambles and other rubbish have overtopped the fruit trees, but I am both clearing and leaving the ground fit for cultivation between the trees. The method is to grub out all small roots as one goes, except old Oak stools, which would take too much time and can be buried. Then, a trench being opened with a short, strong fork, get the top 3 inches or so off and throw it into the bottom of the trench. Then put the fork into the ground beneath as deep as possible, and turn it over on the top of the surface-soil. This leaves a clean, level surface, which can be hoed in the usual manner, thus securing a perfect clearance at once. Of course, deeper pick and shovel trenching is better, but would cost much more. The roots are not much of an obstacle. I could not say what it would cost per square rod without seeing it, but at the worst, with proper tools a man would clear and finish a rod per day. J. A. NOTMAN.

Hurstcot, Wigmor Chatham.

### CARNATION SOUVENIR DE LA MALMAISON OUT OF DOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Being greatly interested in Mr. Coomber's notes of the 20th ult. (page 140 of *THE GARDEN*) respecting the *Malmaison* Carnation, I was much surprised to hear of the success met with. I am curious to know if it was the old blush or pink variety, as these two, I find, are the most difficult to grow. The newer varieties of *Malmaisons* are much more robust and vigorous and easier to cultivate, although, on the other hand, they need much attention. Respecting what Mr. Coomber says of exposing the plants in the summer months, I have practised layering them entirely out of doors about the middle of August, and have always met with good results, but I must say that layering in a cold frame lightly shaded is best. I strongly advocate growing *Malmaisons* on a staging covered with sifted ashes, in a well-ventilated house, and in very hot weather. I find damping lightly between the pots every day and about twice a week or more (according to the weather) overhead with the syringe suits them well. Of course, at the flowering stage this syringing must be abandoned.

Corwen.

J. S. HIGGINS.

## GARDENING OF THE WEEK.

## FRUIT GARDEN.

## POT VINES.

**P**OT VINES which were started early in November should be given liberal supplies of weak liquid manure water and occasional sprinklings of Thompson's Vine Manure. Manure water should be discontinued when the fruit approaches ripening. Give the laterals more liberty at this stage above the bunches wherever space will allow. If red spider makes its appearance the leaves must be sponged at once, and if done carefully no injury will be done to either fruit or foliage. Give a little ventilation early in the day, and add more as the sun-heat increases; close early, and take advantage of bright sunny days to hasten the crop, but do not increase the night temperature above 65° or 68° on mild nights. Damp the paths and walls, using weak liquid manure occasionally.

## EARLY PEACHES.

Fruits in the early house will now be swelling freely. The trees must be well syringed twice daily on bright days, once being sufficient on dull, cold days. The fruits should be left about 1 foot apart on old trees, and a little less on young, vigorous trees. Tie down the shoots as they progress, removing any superfluous growths as the work proceeds; 6 inches to 9 inches apart is none too much. Stop extra strong-growing shoots on young trees to secure a more even flow of sap. The night temperature may now be increased to 60° at night, closing early, and allowing it to rise to 75° or 80°. Syringe the trees occasionally with clear soot water. Old trees should be mulched with manure and fed freely with diluted liquid. Young strong-growing trees do not require it.

## SUCCESSION HOUSES.

Pay attention to the disbudding of these trees, but do not take off too many shoots at once, especially if the trees are weak, or this will cause a check to them. Later trees as they approach the flowering stage should be fumigated moderately for green fly, or this may ruin the crop later. Peaches set very well on healthy trees in a temperature of 50°, but it is always best to pass the brush over the flowers every day. Do not syringe the trees while in bloom.

## FIGS.

Little progress will be noticeable with the earliest trees until the fruits are set, but as soon as they begin to swell a rise of 5° in the temperature should be given. Thin the fruits freely, and do not overcrowd the shoots. Liquid manure water must be liberally supplied to the borders if the drainage is good; syringe the trees twice daily.

*Impney Gardens, Droitwich.* F. JORDAN.

## FLOWER GARDEN.

## HEDGES.

If any growth was made after the autumn pruning Holly hedges may now be clipped. By the time fresh growth is made there will be no danger of frosts sufficiently severe to do any damage. Unless great care and judgment are exercised, hedges soon become too broad, and not only occupy more than the allotted space and root room, but have a tendency to become very thin. The surface soil should be pricked over, and all weeds eradicated. When a large and not too formal hedge is required the common Rhododendron ponticum is good, that is providing the soil will grow Rhododendrons. Such a hedge becomes in a few years a remarkably beautiful sight when in full bloom, and a little judicious pruning when the flowering is over will keep it in shape. As a boundary to the Rose garden the

## SWEET-BRIAR

makes a capital hedge, and will stand a deal of hard pruning. The Penzance Briars, Rosa rugosa, and its varieties and hybrids are also beautiful and useful for this purpose. The various forms of Pyrus japonica make a very pretty deciduous

hedge. If, after the hedge has reached the desired size, summer pruning is practised it will soon come into flower, and there will be buds or blossoms all the year round.

## BY THE SEASIDE

Escallonias make splendid hedges, and will stand a good deal of wind. For a low evergreen boundary many of the Ivies are useful. If a quickly-established wind-screen is required, such subjects as Cupressus lawsoniana, Thuya japonica, Hornbeam, Beech, and Whitethorn should be planted. The Myrobalan (Cherry Plum), when established, makes an almost impenetrable barrier, and during April or early May such a hedge in flower is very attractive. The planter will be guided in his selection by the soil and locality; but, whatever is planted, the preparations must be thorough.

## VIOLETS.

All protecting material should now be cleared away. Remove all decaying leaves and stir the surface soil. At this time of the year a few bright days quickly bring the Violets into flower. The flowers required for decorative purposes should be gathered during the afternoon and placed in water, selecting those not too fully developed. Any plants that are growing at the foot of a wall or in a dry place will greatly benefit from an application of weak manure or soot water.

## FLOWERING SHRUBS.

As they pass out of flower, such spring-flowering shrubs as Chimonanthus fragrans, Jasminum nudiflorum, Hamamelis japonica, &c., should receive the needful pruning. The present is also a good time to give, where necessary, a top-dressing or mulching.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## KITCHEN GARDEN.

A WELCOME change in the weather has set in, and the past week has been fairly dry with several hours' sunshine each day. Many things have started into growth, and the kitchen garden now begins to claim considerable attention. All digging should, as far as possible, be finished, and plans will have to be laid as to how the garden is to be cropped. No difficulty will be experienced where the ground has been prepared for special occupants, but the remainder must be carefully thought of, and things arranged in proper order, warm and sunny borders being used for all early crops, and where there are shady and moist plots they should be used for autumn and winter crops.

## POTATOES.

Some tubers of early sorts may now be started with a view to planting them out of doors in some sheltered position. These ripen very quickly where it is possible to plant them close to the bottom of a south wall. This plan is adopted in many gardens with good results. A good planting should be made now on a southern border where the soil is rich and light. Sharpe's Victor, Harbinger, or Early Sandringham are all suitable for early work, as well as many other varieties. Choose a good dry day for planting, and draw the soil well over the sets so as to form a slight ridge.

## ONIONS.

On the first favourable opportunity this important crop should be sown. It is necessary that the ground be in good condition—dry and friable. A slight sprinkling of soot and wood ashes should be given and raked in before sowing. The ground, if at all soft, should be trodden until very firm. The drills should be drawn 15 inches apart, and after sowing filled in with the feet and again trodden. The plot may then be lightly raked over. As success with this crop to a great extent depends on the condition of the soil, it is advisable to put off sowing till a suitable day comes round. A selection of varieties of good keeping qualities should be made, and also some of the red sorts. The latter are preferred for pickling.

## VEGETABLES UNDER GLASS.

Carrots, Turnips, and other early vegetables growing in pits are now making good progress, and

should be aired on all favourable occasions, as the plants grow and begin to get crowded. They must be thinned before they get drawn and weakly. Potatoes growing in pits will also require air in the warm part of the day. Those growing in pots, if removed to a cooler house as advised, will have a fine healthy and sturdy appearance, and may now be given an application of weak liquid manure from the farmyard, or a good fertiliser when watering. Early Peas in pots may also be given a slight stimulant.

THOMAS HAY.

*Hopetoun House Gardens, Queensferry, N.B.*

## INDOOR GARDEN.

## ROSES IN POTS.

AIM at promoting a well-developed, short-jointed growth by elevating the plants near the glass and affording them full exposure to light, air, and sun. The soil must never be allowed to get dry. The development of the flower-buds will be greatly assisted by applying cow or sheep manure liquid about twice weekly, with during the season two doses of sulphate of ammonia, made into a liquid by dissolving one tablespoonful of the sulphate in one gallon of water. Syringing the plants occasionally with Bentley's Insecticide will free them of green fly and grubs, and will aid in the satisfactory development of growth. Immediately mildew appears dust the affected parts with dry flowers of sulphur. Much the same remarks will apply to Roses that are planted out, except that a surface mulching with good cow manure will be necessary.

## PALMS.

For several months during the winter season these plants have in many gardens to submit to somewhat harsh treatment, and about this time of the year begin to deteriorate. The dust that settles upon their fronds and leaves when in rooms cannot always be washed off, and this naturally clogs the pores of the leaves and prevents proper respiration. The yellow spotting so frequently seen upon the fronds of Kentias is the result mainly of the circumstances mentioned, as well as of cold draughts. Directly opportunity offers remove them to a position where they can be given a temperature of 60° to 65° and be syringed twice daily. Sprinkle Clay's Fertilizer at the rate of a teaspoonful to a 12-inch pot over the surface soil about every two weeks, and afford an occasional dose of weak soot water to their roots.

## IXORAS.

Specimen plants that have been pruned back previously with a view to creating new growths will by this time be ready for repotting. A capital compost for the purpose is formed of fibrous peat and loam and a small proportion of coarse sand. Remove a portion of the old soil and return them to pots that are large enough to carry them well through another season. Until the plants begin to root into the new soil apply water very sparingly to their roots, but syringe freely the growth, and give a temperature of 70° to 75°. Directly they are ready take off the tops of a few of the strongest shoots, and insert these as cuttings singly in 2½-inch pots. Plunge them in a brisk bottom-heat, and for a time keep them close and shaded from strong sunlight, but immediately they are rooted remove the shade and afford light and air to strengthen them. *Ixoras Williamsii*, *Coccinea*, *Fraserii*, *Pilgrimii*, and *Duffii* are the best.

J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*

## BOOKS.

**Pictorial Practical Chrysanthemum Culture.**—This is another of the series of handbooks which aim at teaching largely by means of sketches and diagrams, instead of relying solely upon reading matter. It is very comprehensive; in addition to the ordinary cultural details, which are clearly explained, there are "Hints to Exhibitors," including advice as to

\* "Pictorial Practical Chrysanthemum Culture." By Walter P. Wright. Cassell and Co

preparing blooms for the show-board, and valuable information as to the best dates for taking buds. There are selections of Chrysanthemums for special purposes, as scented, curious, and hairy Chrysanthemums, varieties for market, buttonholes, &c. There are also numerous illustrations, showing groups of Chrysanthemums, various types, &c., which add to the value of a useful little book.

**Roses and their Culture.**\*—This is a handy little book for amateurs, and contains sound advice from one well qualified to give it. There are lists of Roses for various purposes, and many practical chapters about budding, destroying insect pests, and so forth, with a schedule of all the varieties worthy of culture in British gardens, whilst interspersed here and there are excellent illustrations. The whole get-up of the book, however, is poor, the cover is ugly, the printing indifferent, and at the end are several pages of advertisements. The author deserves better treatment. A coloured plate of Mme. Chauvry variety is not bad, but better to have left this out and expended more care upon the general production.

**Fertilisation of Orchids.**†—We welcome a cheap edition of this great work. We need say no more; it is a book for the student and all for whom the workings of Nature possess any fascination. It is to be hoped the publishers will see their way to issue the whole of Darwin's works at this price. The book is excellently printed, well bound, and the illustrations are as clear as in the original editions. A very cheap and notable edition.

## POTATOES IN LINCOLNSHIRE.

**S**PALDING is the "eye" of the Potato world, and during the past few months it has, of course, taken the liveliest interest in watching and profiting by the rise in the price of new varieties. Among other seedsmen and growers of the "Metropolis of the Fens" who have come into public prominence is Mr. George Massey. In a recent letter to the writer, Mr. Massey mentioned that he was actually selling—not offering for sale—single tubers of Eldorado at £10, none of which weighed more than 1½oz., and as the majority

weighed exactly 6oz. Indeed, public auctions have been held—at Lincoln, if I remember rightly—where the goods to be put up for sale consisted of a few small specimens of this self-same Potato. As to the value of the half-dozen shown in the photograph, Mr. Massey declares that they are worth £500, or nearly £84 a tuber.

An interesting fact in regard to the culti-

which were planted last year, it is even now fetching from 3s. 6d. to 4s. per pound.

Of the variety *Sim Gray*, introduced by Lord Carew, and for which £5 has been paid for one pound, not so much has been heard, although the price quoted is, as far as I am aware, five times higher than that reached by the *Northern Star*. Nevertheless, it has its devotees, like the rest, and in the present



POTATO SIR J. LLEWELYN.

vation of the *Eldorado* is that it was grown by not more than three raisers, the fortunate few being Mr. Findlay, Mr. Massey, and Professor Malden, the very well-known Potato expert. In October the last-named gentleman stated that from 124 *Eldorado* plants he lifted 536lb., all the tubers being quite free from disease.

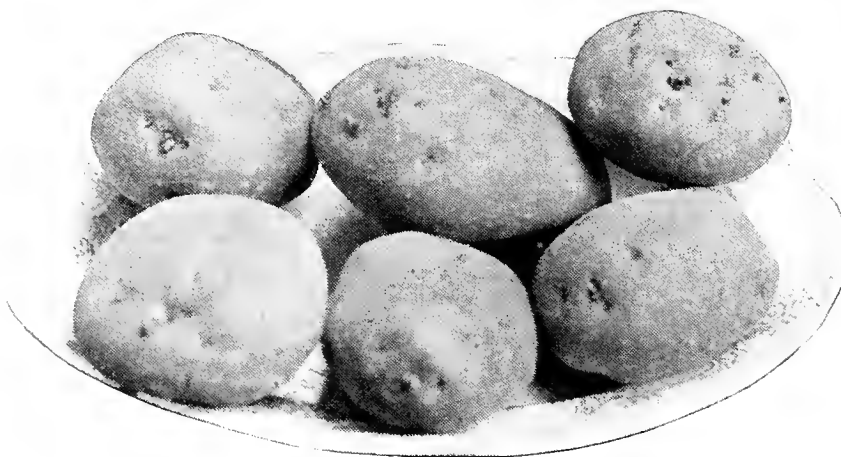
The introducer of this plutocratic Potato was Mr. Findlay of Markinch, in Scotland, from whose nursery have come many other well-known varieties, notably *British Queen*, *Evergood*, *Up-to-Date*, *Empress Queen*, and *Northern Star*. Mr. Findlay is a raiser with a long and wide experience being old enough to

year it may possibly boom itself into general favour.

Another new Potato which played a part in the record boom of 1903 was *Sutton's Discovery*, which South Lincolnshire folk are now buying at £1 per pound. This is a price that, when paid for the *Northern Star* twelve months ago, made most growers gape with astonishment and cry out that the buyers must, indeed, be mad. Time, however, has proved that they were simply shrewd.

In regard to their selling figure, Sir John Llewelyn and the *Evergood* sink into insignificance when compared with those of the others already mentioned, as they have been fetching not more than £25 and £8 per ton respectively. But, according to the *Spalding Free Press* of the 2nd ult., these two varieties have covered themselves with distinction in another direction. Together with single tubers of *Northern Star* and *King Edward VII.* they were sent all the way to Toronto. Upon their arrival they were complimented by the newspapers in "descriptive paragraphs," and their possessor was advised to hand them over to one of the Canadian Government's experimental farms, and many people "were anxious to secure a sprout or an eye." The owner, however, being a shrewd native of Lincolnshire, refused to sell, as he is experimenting with the Potatoes himself. The *Evergood* and the *Northern Star* have also been the winners of several disease-resistance challenges, but, my space being limited, their doings in this respect must here remain unchronicled. Messrs. Carter Page claims that from 1lb. of "Stars" they grew 178lb. of tubers.

One of the most useful of the implements for lifting Potatoes is the rotary digger. There are several types upon the market, but all have the common features of a ploughshare, a rotating wheel which brings the tubers up to the surface, and some sort of catch-screen against or into which the Potatoes are thrown. And some of these implements have the most elaborate arrangement for combining the operations of lifting and gathering, one actually putting the tubers into an ordinary farm cart. There is also a highly ingenious machine for



POTATO EVERGOOD.

were under that weight, the price per pound worked out to nearly £200. Again, it is reported that two tubers of *Eldorado*, which were bought by a *Sleaford* auctioneer (Mr. R. Earl) for £19, have just been resold by him for the astounding sum of £35. These "tates"

remember the two great "blight" years of '46 and '47.

The *Northern Star* was first put upon the market in 1902, and in January, 1903, was selling at 5s. per pound, but so great was the demand that Mr. Findlay raised the price to 7s. 6d. It then rose to 10s., then to 15s., and finally to £1 per pound; and well on in the autumn it continued to command very high prices, and, in spite of the heavy yield of those

\* "Roses and their Culture." By T. W. Sanders. Published by Messrs. Collingridge, Aldersgate Street, London.

† "Fertilisation of Orchids." Published by John Murray, Albermarle Street. Price 2s. 6d.



POTATO ELDORADO.

riddling the "tates" into different sizes, which is accomplished by simply turning a handle. The inventor of this great labour-saver is Mr. John Shore of Owston Ferry, Doncaster.

Perhaps in no part of the country are the farmers such keen business men as those in South Lincolnshire, and they are generally among the first to adopt any new labour-saving machine. Nowadays the large farmer works his head quite as much as does the City merchant, and he is always scheming for the more economical working of his farms, for few are now content with one. No South Lincolnshire farm now goes a-begging—indeed, an almost indecent scramble takes place as soon as the land becomes, or is likely to become, vacant.

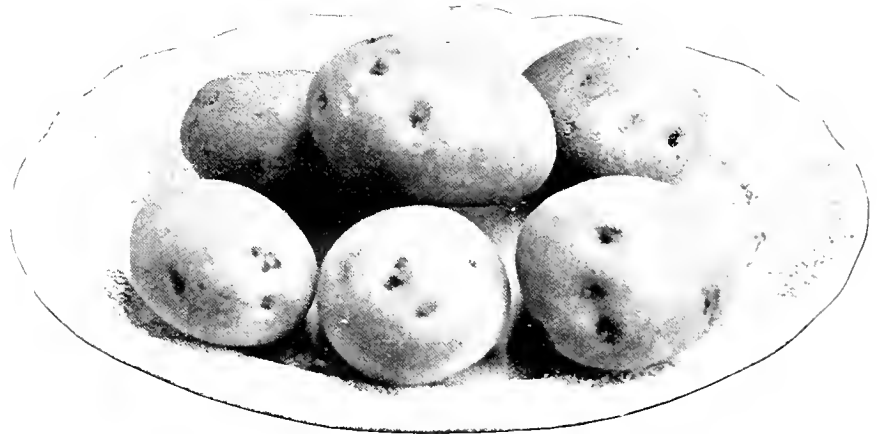
Of the younger and larger farmers, Mr. George Caudwell is as enterprising as any. Lately he has taken to hauling large quantities of "tates" to the railway by means of a traction engine built by Messrs. Burrell and Sons, Limited, of Thetford, as being a cheaper form of transit than the use of horses. The load shown in the trucks amounts to thirty tons. Previously four horses were required to pull one farm waggon, and as the station is some miles distant from Mr. Caudwell's farms, relief horses had to be stationed halfway. Thus the horse is being ousted, and the engineer is taking the place of the old-time carter.

Lincolnshire deserves to loom more largely in the horticultural horizon; it is the home of a great industry, and is becoming more so as the years go by. Acres of that county yield great profits.

TOYE VISE.

## MARKET NOTES.

*Roses.*—There is now a more plentiful supply in the market. Flowers of Niphetos are very good. There are also some good Catherine Mermet. Mrs. J. Laing is the best pink seen at present, but Mrs. W. J. Grant is undoubtedly a finer Rose. Red



POTATO NORTHERN STAR.

Roses are now coming in better. On Saturday, 27th ult., there were some General Jacqueminot; the flowers were not large, but bright in colour, and were making good prices. It is surprising how well this old favourite holds its place as a market Rose. There are also a few Maréchal Niel, but

these are not quite first quality, and the colour is hardly deep enough. With a few bright, sunny days we may now expect a considerable increase in the supply of Roses.

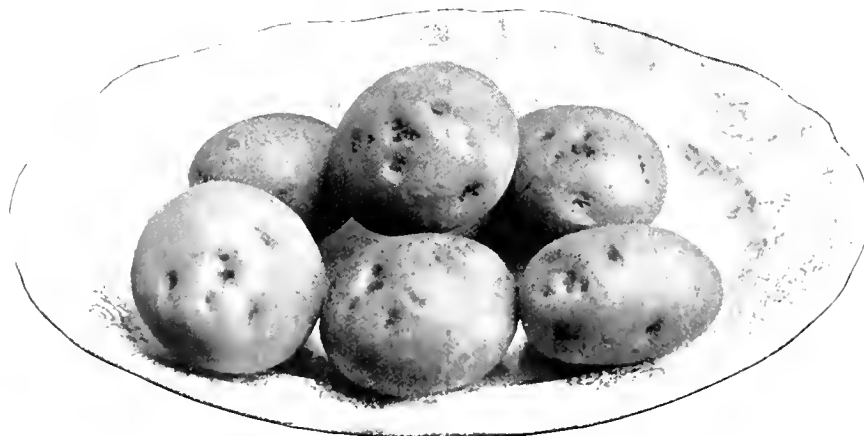
*Liliums.*—Messrs. T. Rochford and Sons now have a large supply of longiflorum, also laocifolium and anatum; the two first-named are also to be seen on several other stands. There is a fair demand for these at moderate prices. Lily of the Valley continues plentiful, both in pots and cut; the prices do not vary much. Callas may be bought at very low prices. Tulips are very plentiful, but some of these are of very poor quality, and there are some extra fine to be seen. On Messrs. Low and Co.'s (of Uxbridge) stand were some very fine doubles, crimson, and deep orange yellow. Gardenias have been making good prices. It appears that they are likely to be much in demand the coming season. Carnations are beginning to come in more plentifully, but the best blooms still make good prices.

*Azaleas.*—A good many growers are now bringing in well-flowered Azaleas, Niobe, Flag of Truce, and Deutsche Perle are favourite whites; Apollo is a very fine double scarlet; Simon Mardner, rosy pink; vernaeneana, salmon, with white margin; Mme. Van der Crupsen is very plentiful; it is one of the best to flower early, but it is not quite the best shade of crimson for the market. The best quality Azaleas sell well at good prices, but smaller plants, and any that are not well flowered do not go out so well, and on Saturday there were a good many left on the stands at closing time.

*Genistas.*—These are over plentiful. Several growers are bringing in well-flowered plants, and a good many remained unsold. It will not be until we get warmer weather that there will be much demand for these.

*Marquerites.*—These are also very good now, and several growers are sending them in in large quantities. Cyclamens continue to be plentiful, and have to be sold at low prices to clear out. Erica mooreana and E. fastigiata are good, but the mooreana is not quite so well flowered as we get it some seasons. Acacia Drummondii, A. armata, and others are good, but the cut Mimosa from France, which is now so abundant, affects the sale of these. There are now several distinct sorts coming from France. A few Solanums are still to be seen in the market, but there is no demand for them. Spiraea japonica from several growers, but the cold weather on Saturday made these look unhappy; the early forced plants will not stand much cold. Cinerarias were very good on several stands. Although rather tender these will always be favourites on account of the bright colours.

*Daffodils.*—These are much in favour as pot plants, though on Saturday the supply considerably exceeded the demand. Golden Spur was very fine with several growers. Hyacinths.—The trade for these was very slow on Saturday, and large quantities remained unsold. The supply of Palms, Ferns, and other foliage is in excess of all demands. The very cold weather made trade for all pot plants



POTATO SIM GRAY.



much quieter than it otherwise would have been. Several growers have started bringing in hardy flower roots, and as soon as we get another spell of mild weather Pansies may be expected. It is surprising the large quantities of these sold every season. A. H.

## NURSERY GARDENS.

MESSRS. SUTTON AND SONS'  
PRIMULAS AND CYCLAMENS.

**C**HINESE PRIMULA time is almost over, the Persian Cyclamens, too, are flagging, but one sunny morning recently the large plant houses at Reading were full of colour from both groups, and the sunshine brought out the pure and clear shades of some and the intense depth of others, an object-lesson in the art of hybridisation which must fill every earnest gardener with enthusiasm. An array like this, representing the finest forms created by the firm, is a witness to the skill and perseverance of those who cross and select certain types to bring about some hoped-for colour or habit of growth. The white becomes purer, the rose clearer, and the purple free from magenta by this persistent determination to bring everything that shows a departure from existing types to a certain standard set up as the goal to be reached. Those who enjoyed the Chinese Primulas years ago must rejoice in the present day to find that the hybridist has run off into many byways and raised up a race of free-growing, free-flowering, and, to use the words of the catalogue, "elegant strain" to go hand in hand with the varieties of dwarfier growth and denser flower-spikes. We enjoy both, and when the colours are decided the effect of a large mass is bewildering.

We have heard and read of the older strain of Chinese Primulas, the Giant Pink, White, Crimson, Crimson King (a flower of wonderful colour), Brilliant King, the famous Pearl (still one of the most priceless of the family), the Fern-leaved, and the doubles in various colourings. All these were a brave show a fortnight ago, but we may single out one in particular, as this has been shown and admired greatly at the meetings of the Royal Horticultural Society. It is called The Duchess, and has a special distinctiveness in a zone of rose-carmine on a white ground with the yellow eye in association. It is a remarkable contrast of colours, and the flower faces one as if to say "Look at me," but there is nothing unpleasantly aggressive in this commanding presence. It is a beautiful variety, the individual bloom large, shapely, and supported on a short, strong stem. It should stimulate much interest in the dwarfier Chinese Primulas.

It is not for us to write of the hybrids in course of development. There is no standing still, and as the scientific student knows the most curious and unexpected departures from a normal type occur when flowers are grown on a large scale in particular. Each is carefully set aside for investigation and trial. It is the watchful eye that has created the flower beauty in our nurseries and gardens, and a future generation may revel in things unknown to the gardeners of to-day. Those who care little for the dwarfier Chinese Primulas because there is a certain formality in their growth will be satisfied with what is known as "Stellata" Primulas, which were introduced by Messrs. Sutton to the notice of the public in 1895. This strain has much utility. The plants have a freshness and gaiety that makes the staid beauty of the splendid dwarfier types even more welcome. We want the two groups to enjoy the Chinese Primulas in their fulness. The Stellata race is represented by varieties of many colours. There is the original White Star, which has still a strong hold upon the affections of the indoor gardener, who can gather the flowers for the table and make pretty effects with the dark-stemmed spikes. A variety that we think even more of than this is White Queen Star. It has lost none of the freedom of growth, but there is greater

substance in both leaf and flower, so much so that both may be represented in a house without fear of approaching a repetition. Mont Blanc is another distinct advance, but Ruby Star is the variety to possess for intense colouring. It is as deep as in Crimson King, and is attractive either in the clear light of a winter day or in the evening, and it is well to know the flowers that lose nothing when in the house.

But blue is the colour that seems to fascinate in these houses of flowers. Those who do not know the blue Primula may recall to mind the crude stages of the hardy Primrose before the purer shades were reached, a mingling of ultramarine and magenta, and sufficiently unpleasant to make one wish that the attempt to achieve a blue Primula had proved abortive. This is changed to-day. The flowers are enjoyable, not perhaps the blue of the violet or the gentian, but pure and free from harsh shades of magenta and purple. In the doubles and singles there is the same fresh colouring, and a Cambridge Blue is a companion to Reading Blue, and in Blue Star, one of the Stellata group, there is the contrast with the soft green leaves. We think perfection must have been reached in purifying the blue shades; but Messrs. Sutton would probably say "Certainly not."

Hybridisation is progressive. It is reflected in the Persian Cyclamens, which flower at the same season. The varieties are very beautiful, the whites as pure as driven snow, and the salmon shades unusually clear, and in cherry red we get a bright and attractive flower which is likely to prove most popular in the future. From white to the deep crimson of Vulcan there is a series of colourings without an unpleasant shade. It is the beauty of the flower colouring that appeals perhaps most strongly in the collections of Primulas and Cyclamens at Reading, but with all this the work of improvement and seeking after new varieties continues unabatingly. Some interesting sidelights upon the results of hybridising Primulas were recalled in a paper read by Mr. Bates, F.R.S., at a recent meeting of the Linnæan Society. We hope to publish this.

## OBITUARY.

MR. THOMAS HUNTER.

**M**R. THOMAS HUNTER, proprietor and editor of the *Perthshire Constitutional*, died in Perth on the 24th ult. He took much interest in country affairs, and was the author of a work entitled "Woods, Forests, and Estates of Perthshire," which was awarded the highest honour at the International Forestry Exhibition at Edinburgh in 1884. It has long been acknowledged the standard work on the subject. He was a man of varied abilities and accomplishments, and will be much missed in the city and county.

MR. WILLIAM HERRIES.

MR. WILLIAM HERRIES, who died at 31, Church Street, Maxwelltown, Dumfries, on the 23rd ult., was for long gardener at Lincluden, Dumfries. At the time of his death he was eighty-six years of age, and had retired from active work. He was much respected, and for many years possessed the confidence of his employers at Lincluden, the gardens there being exceedingly well kept.

**The recent gardeners' meeting.**—Kindly permit me to remove the impression that any body of head gardeners, in committee or otherwise, had resolved to take any action whatever. At that meeting the gardeners' dinner committee were asked if, before disbanding, they would act as intermediaries in convening a meeting of gardeners to enable that most estimable member of the fraternity, Mr. Divers, to lay his views on the subject of forming a private gardeners' association before them. That was acceded to, and the meeting, through the kindness of the Horticultural

Club, was held at the Hotel Windsor in December last. There were about twenty persons present. A far more complete discussion of the subject took place then than seems, from the reports furnished, to have taken place at the recent meeting. Ultimately it was agreed that a committee of gardeners—myself as temporary secretary—consisting of eight persons, be formed to either prepare a scheme and rules or bring up a report to an adjourned meeting to be held on February 23. That committee met once, and again the subject was fully discussed. It was then agreed that there was not before them evidence that such an association as was proposed was likely to receive general support, and I was invited to draft a report giving the committee's conclusions. That I did, and Mr. G. Kelf kindly undertook to read it in my enforced absence through illness. It was a document meriting a better reception than it seems to have received. Of the eight members of that committee four were present at the recent meeting, and four, including myself, were absent. The three absent gardeners wrote me letters of regret, because being only gardeners their time was not their own. Thus no pledge was given to support any resolution, the matter being absolutely open for discussion. Neither the dinner committee, which did the work it undertook so well, nor myself have anything further to do with any proposals, whatever they may be.—A. DEAN.

**Highgate Horticultural Society.** The annual exhibition of this society will be held on July 14 next in the grounds of Hillside, Fitzroy Park, Highgate.—W. E. BOYCE, Secretary, 33, *Holmesdale Road, Highgate.*

**Allotment and cottage gardening.** The lecture by Mr. A. Dean on this subject at the meeting of the Royal Horticultural Society on Tuesday next should be an interesting one. This is an important aspect of gardening.

**Shrewsbury summer show.**—Messrs. William Bull and Sons announce that they are offering through the Shropshire Horticultural Society a special prize for new plants, a silver cup value ten guineas and £5 cash, to be awarded to the exhibitor of the best six new plants sent out by this firm. A list of the plants eligible for this competition will be supplied on application to Messrs. William Bull and Sons, new plant, seed, and bulb merchants, King's Road, Chelsea, London, S.W.

**United Horticultural Benefit Society.**—The annual meeting of this society will be held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday, the 14th inst. at eight o'clock, when Mr. H. J. Wright will take the chair.

**Veitch Memorial Fund.**—At an adjourned meeting of the trustees held on the 23rd ult. it was decided to offer the large silver medal for distinguished service to horticulture to Mr. John Wright, V.M.H., in recognition of his long and persistent efforts to diffuse amongst the industrial classes a practical knowledge of the cultural requirements of the vegetables and fruits most necessary for gardens, and as an author who has written several valuable treatises on subjects relating to horticulture. Also a similar medal to Mr. Thomas Challis of Wilton House Gardens, Salisbury, for his long and many services to gardening, especially in reference to his improved cultivation of hardy fruits.

**Mr. George Field Morris.**—Owing to advancing age Mr. Morris has retired from the firm of Messrs. Protheroe and Morris of 67 and 68, Cheapside, E.C., and Leytonstone, as from December 31 last. Mr. G. F. Morris has been connected with the firm for fifty-eight years, although for the last ten years he has not been actively engaged, having left the entire management to the four other partners, Messrs. H. G. Morris, J. B. Slade, T. A. Morris, and A. E. Protheroe, who will continue the business. We are glad to be able to state that Mr. G. F. Morris is in good health, and we are sure all our readers will wish him many years to enjoy this well-earned retirement. The firm has been established for upwards of seventy years, and the name of the firm will still remain the same.

## SOCIETIES.

### READING GARDENERS' ASSOCIATION.

THERE was a large attendance at a recent fortnightly meeting of the above association, when Mr. Winsor, foreman, Bear Wood Gardens, gave one of those practical demonstrations which have become very popular with the members. On this occasion "Wreath-making" was the subject, and two wreaths were made during the evening. The first was done to show the quickest; the other to illustrate the making when more time is available. The principal flowers used were Arums, Carnations, Lily of the Valley, Roman Hyacinths, Orchids, and Chrysanthemums. A very good discussion followed, in which many useful hints were thrown out by Mr. Powell of Park Place. The only exhibit was some splendidly grown plants of *Primula sinensis*, staged by Mr. T. Butcher, The Gardens, Greenbank, Reading. Eight new members were elected.

#### PROGRAMME OF MEETINGS.

March 7.—"Spring Flowers," by Mr. J. Crook, The Gardens, Forde Abbey, Chard. March 21.—"Fruit Culture," by Mr. W. Barnes, The Gardens, Bear Wood. April 11.—"Present-Day Orchid Culture," by Mr. W. P. Bound, The Gardens, Gattou Park, Reigate. April 25.—"The Decoration of Vases with Flowers," with practical demonstrations, by Mr. T. J. Powell, The Gardens, Park Place, Henley-on-Thames. N.B.—April 25 will be "Hospital" night, when bunches of cut flowers are solicited. These will be sent to the Royal Berkshire Hospital after the meeting. Members are invited to bring specimen plants, &c., to the meetings. Certificates of merit for cultural skill will be awarded during the session to plants, flowers, fruit, and vegetables.

### GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY.

THIS society has issued its prize schedule for the flower show to be held in St. Andrew's Hall, Glasgow, on September 7 and 8. The prize list, which is an extensive one, is much the same as in former years, and prizes of considerable value are offered in many cases. A few of the leading classes are referred to now, but the schedule can be obtained on application to the secretary, Mr. Hugh M. Mackie, C.A. (of Mackie and Clark), 55, Bath Street, Glasgow. In the open classes the leading one is that for the best exhibit of fruit, to occupy space 6 feet by 4 feet, not necessarily grown by exhibitor, foliage or small plants allowed for effective staging: First prize, cup, value £5; second prize, plate, value £3; third prize, plate, value £2. In the classes for gardeners and amateurs the leading ones are: Table of plants arranged for effect, 12 feet by 6 feet: First prize £4, second £3, third £2; Collection of twelve dishes of fruit, distinct, not more than two varieties of any sort: First prize, the Malcolm Dunn Memorial Medal in Horticulture, with £2 10s. presented by the trustees; second £2, third £1; Collection of vegetables, containing thirteen varieties (specified): First prize, £3 and the Austin and M'Aslan Challenge Cup (conditions regarding which are on page 8 of schedule); second £2, third £1. As in former years, a noteworthy feature of the schedule is the number of prizes given by donors, and entered in the body of the prize list. The business men of Glasgow give great support to this society, which has had at times severe struggles to hold its own. It is gratifying to observe that last year's accounts show a surplus of £10 14s. 11d.

### SPEKEFIELD GARDENERS' SOCIETY.

THIS society has long been noted for its success in the midst of unfavourable surroundings. In one of the most thickly populated districts of Liverpool, with gas and other works in the immediate vicinity, the amateur and cottager produce many surprising exhibits at their annual show. To increase the knowledge of its members the committee recently arranged for a series of lectures by Mr. John Stony, on "The Principles of Horticulture," which were given in a style suited to the audience, and embraced such items as soils, manures, vegetables, especially Tomatoes and Potatoes, flowers, especially those suitable for their August show, and diseases of plants, their prevention and cure. The information imparted was practical and such as could be followed by those present. Illustrations and specimens did much to bring the matter home to the audience. The attendance was good. The closing lecture proved highly interesting, showing in a marked manner the appreciation of the members. A handsome silver-mounted stick, suitably engraved, was presented to the lecturer.

### IRISH GARDENERS' ASSOCIATION AND BENEVOLENT SOCIETY.

#### ANNUAL REPORT.

NOTWITHSTANDING the many claims on gardeners and others interested in horticulture, this society continues to make steady progress. The most notable event of the past year was the honour conferred on the members of the association by His Most Gracious Majesty the King, who, on his visit to this country, was pleased to accept in person a loyal address of welcome. Four members applied for and received full benefit. Early in the year lectures were delivered in the XL Café, Grafton Street, the first in March, by Mr. P. M. Moran, on "Fruit and Flower Packing for the Market." In the following month (April 7), Mr. F. W. Moore delivered a very instructive lecture on "Orchids," which was illustrated by limelight views. The attendance at both meetings was extremely large. At the monthly meetings papers were read by Mr. Colgan on "Vine Culture"; Mr. A. Campbell, "Horticulture To-day and Twenty-five Years Ago"; and Mr. W. E. Gunn on "Rose Rust." By permission of Lord Howth's agent, Mr. Bullock, the members were afforded special facilities for spending a most enjoyable and instructive afternoon among the Rhododendrons at Howth Castle. The party was accompanied by several young gardeners from the Botanic Gardens, Glasnevin, and during the visit Mr.

F. W. Burbidge delivered an explanatory address, which was highly appreciated. In August a second party journeyed to Carton, the residence of the Duke of Leinster, by kind permission of Lord Frederick Fitzgerald, and on the invitation of Mr. A. Black, who gave his fellow gardeners a most cordial reception, and spared no exertions to make the outing a pleasant one for the visitors. With the object of affording the members, their wives and friends, an opportunity of spending a sociable evening together, a most enjoyable meeting was held in the XL Café on Thursday evening, November 10. Mr. F. W. Burbidge presided, and welcomed the members and their friends. Owing to the enthusiastic manner in which the many friends assisted by giving their time ungrudgingly, the large programme of events was successfully carried out with little expense to the society. The members have every reason to congratulate themselves on the position which their association now holds. Nevertheless, much remains to be accomplished, and it is therefore of the utmost importance that the members individually should lose no opportunity of placing before their friends the benefits and educational advantages which the society affords, and also by using their influence towards increasing the number of subscribers.

### ANCIENT SOCIETY OF YORK FLORISTS.

#### ANNUAL REPORT.

IN submitting the annual report and financial statement for the past year, the committee regret that same is not so satisfactory as they would desire, as they have to chronicle an adverse balance of £9 13s. 11d. on the year's working. At the same time they deem it a most satisfactory conclusion, after taking into consideration the adverse circumstances and bad weather. The number of members who have paid their subscription is 753, amounting to £191 14s., being an increase of £1 6s. on last year. The total receipts have been £627 18s. 9d., and expenditure £637 12s. 8d. The receipts for admission to the Chrysanthemum show were £60 4s. 6d. less than in 1902. During the year the committee have deposited on loan with the York Corporation the sum of £200. This, with the balance of £5 6s. 7d. at the bank in the society's favour, represents the amount of the balance. The committee desire to place on record their high appreciation of the valued and willing services of the president (Alderman Sir J. Sykes Rymer, J.E.) rendered to the society during the year. The committee with much regret have to record the loss of one of its most respected members through the death of Mr. J. C. Millburn, which took place on February 13. A special feature in connexion with the society has been the augmenting of the Dahlia show. This was brought about by a number of the committee securing special prizes of plate and cash £26 3s., to add to those offered by the society at the fourth minor show, with which it was incorporated; and the guarantee given by them of no loss to the funds of the society. During late years there has been a steady increase in the growth of Dahlias, and as the Guildhall has been found inadequate to allow of the proper display of the exhibits, and the light being far from satisfactory, the only suitable available building being the Exhibition, the committee after careful consideration decided to give it a trial. The result was most gratifying to all interested in the venture, though the financial profit was very small. The first show this year is on April 13, the second on May 25, the third on July 20, and the fourth (Dahlia show) on September 8. The Chrysanthemum show is fixed for November 16, 17, and 18.

### CARDIFF GARDENERS' ASSOCIATION.

A MEETING was held at the Grand Hotel on the 23rd ult., when Mr. H. R. Farmer presided over a large muster of members. Mr. J. Mounthey, naturalist and preserver to the Cardiff and other museums, gave a delightful and interesting lecture, entitled "Our Summer Visitors," illustrated with over thirty specimens, such as the swallow, swift, martin, cuckoo, nightingale, nightjar, &c. The lecturer, in passing the specimens round singly, gave a brief history of each one, and explaining at the same time, apart from their songs, their particular value in the garden. He was alive to the fact that they often caused great vexation during the fruit season, and, though the losses were considered great at times, it was a fact that, if there were no birds to keep insect life under, complete destruction of plant life was bound to follow unless fought against by artificial means. A variety of questions were put to the lecturer during a pleasant discussion. The unanimous opinion of the meeting was that the sparrow ought to be exterminated.

The best thanks of the association were accorded Mr. Mounthey for his lecture, which was the first of its kind that had been brought before the members.

### HIGHGATE HORTICULTURAL SOCIETY.

THIS old and distinguished society held its forty-fourth annual meeting in the Highgate Literary and Scientific Institution on Monday evening last, the 29th ult., Mr. E. H. Smithett occupying the chair. There was a good muster of members in attendance. The report was of a most satisfactory character, considering the difficulties that this society labours under. A good exhibition was held last season—distinctly in advance of many of its predecessors—and a better tone and a more lively interest among the practical men in the neighbourhood are now felt in the society's welfare. Special mention was made of the fact that the competition last season was much better than usual, and as a natural consequence the exhibition was far more attractive and interesting than has been the case for some years past. Notwithstanding an unceasing downpour, thanks to the generosity of a few enthusiasts, the society is able to show a respectable balance on the right side. The prospects for the current year are bright enough. Mr. E. H. Smithett, of Hillside, Fitzroy Park, Highgate, has accepted the presidency of the society, and has placed his grounds at their disposal. He is also a most generous donor of special prizes, and more local residents, including the Baroness Burdett-

Countts, have also come forward with the promise of others of a special character. Mr. W. E. Boyce, Holmesdale Road, Highgate, N., is the secretary, and he is working hard to improve the prospects of and aid the society in its usefulness. The show is fixed for Thursday, July 14 next, and the committee are hopeful of eclipsing last year's fine display.

### BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

A WELL-ATTENDED meeting of this association was held at St. John's Rooms on Thursday, the 25th ult., when Mr. J. Countts, representative of the Exeter gardeners, delivered an exhaustive lecture on "Greenhouse Hard-wooded Plants." Mr. E. Poole, F.R.I.S., occupied the chair, and on behalf of the Bristol gardeners gave Mr. Countts a hearty welcome. His lecture, although the subject was a very wide one, was full of interesting points, and minute details for the cultivation of Ericas, Rhododendrons, Azaleas, Boronias, &c., were carefully given, potting, composts, trimming, and general treatment receiving attention. A fair discussion followed the lecture, and Mr. Countts received the hearty thanks of the Bristol gardeners for his lecture. Prizes for table decoration were awarded to: First, Mr. Thoday, gardener to Mr. N. C. Dobson, and second to Mr. J. T. Curtis, gardener to Mr. W. Howell Davis, a special certificate of merit being recommended for Mrs. A. Hall (gardener, Mr. Ware) for two beautiful pots of Freesias. The next lecture will be held on the 17th inst., when Mr. Myers will lecture on "Ancient and Modern Gardens," with lime-light views, when a large attendance of members and friends is expected.

### KIRKMICHAEL (DUMFRIESHIRE) HORTICULTURAL SOCIETY.

THE annual meeting of this society was held on the 19th ult., Mr. J. Stewart Lyon of Kirkmichael House presiding. After the financial position had been considered, it was agreed to hold the show this year as formerly, the date being arranged as August 6, power being delegated to the committee to alter it if necessary. The office bearers were all re-elected, with the exception that Mr. S. T. Farish, who has made a most efficient treasurer, was relieved of that office at his request, and it was agreed that the secretaries should also act as treasurers. Mr. Farish was appointed vice-president, and Mr. W. Hair added to the committee in the place of Mr. S. Dinwiddie. The secretaries are Mr. A. E. Ryder, Buckwood Lodge, and Mr. J. Shannon, The Gardens, Kirkmichael House.

### READING AND DISTRICT GARDENERS' ASSOCIATION.

THERE was a large attendance of members at the last fortnightly meeting of the above association, when Mr. T. Neve, of Sindlesham House Gardens, Wokingham, introduced the subject of "The Potato in connection with the year 1903." He noted the value of the Potato, the universal failure of the 1903 crop, the different varieties of Potatoes, spraying to prevent disease, and made the following suggestive remedies to prevent disease, viz.: To have an entire change of ground for growing the crop; using manures that are suitable for Potatoes; change of seed; give more thought to the early and second early varieties, and not put so much faith in the later ones; and last, but not least, obtain a Potato with a strong constitution. A very practical discussion followed in which the following took part: The president (Mr. Leonard Sutton), Messrs. Bright, Wilson, Fry, Slyfield, Powell, Judd, Exler, Stanton, Unbridge, Lasham, and Professor Percival, who gave much valuable information on diseases, manures, spraying, &c. A vote of thanks was accorded to Mr. Neve, and also to the various exhibitors, viz., Mr. G. Herridge, who staged Marie Louise Violets; Mr. T. J. Powell, for a basket of young Potatoes, picked from old tubers placed in the dark, chalk arches at Park Place Gardens; Mr. W. Slyfield, for some fine specimens of Up-to-date Potatoes; and to Messrs. Sutton and Sons for a basket of Discovery Potato.

### STONEHAVEN, N.E.

THE annual meeting of this society was held in Stonehaven recently. The report of the secretary and treasurer was of a gratifying character, there being a balance of upwards of £20 at the credit of the society. Office-bearers for the year were elected, these being: Hon. president, Provost Mowat; Hon. vice-presidents, Bailie Ogg and Mr. Booth; president, Mr. G. McLennan; vice-president, Mr. John Ritchie; secretary and treasurer, Mr. William Thomson. The various committees were reappointed and arrangements made for the show, which is to be held at Old Lodge Park, Urie, on Saturday, August 13. Like many other shows, sports are arranged for in connexion with this one, and Highland games will be included among them.

### CHISLEHURST GARDENERS' SOCIETY.

At a meeting of this society, held on the 23rd ult. in the Schoolroom, Chislehurst, there was a large gathering, and those present were well repaid for the trouble they had taken in turning out by the admirable lecture in store for them. The initial business over the chairman (Mr. Lyne) at once introduced the lecturer, Mr. Henry Canby, V.M.H., of "The Home of Flowers," Swanley, whose subject was "Fruit, and How to Eat It." In opening his remarks, he said that, the subject being new, it would require consideration and time to see its necessity and value. He had heard a great deal about propagation, cultivation, and kindred subjects appertaining to gardening, but very little about making the best of the crops they grew. "Good health is better than riches," and in his opinion the food had come when it behoved each one to look after his health. One way of doing that was to bring fruit more and more into the daily food. Being a practical gardener himself, he felt it his bounden duty to tell the community what he thought; in fact, he was certain fruit was the best food to eat.

# THE GARDEN

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## SPRING AND ITS WORK.

**T**HERE has been enough in the past season to make even stout hearts despond as to matters horticultural, and the opening weeks of 1904 so far have not been very reassuring. We have much sympathy with all who have suffered, first by frost and later by flood, during the year gone by. But a new spring is at hand, and it behoves us all to lay aside faint-heartedness and buckle to with the will and the courage that is bound in the long run to tide us over every difficulty. We are ready enough, we British, to do and to dare nobly on an emergency, or for a forlorn hope, but in reality it very often needs more pluck to face the daily disappointments, and to hope against hope in matters of everyday life. The storm passes nevertheless, but the bow remains in the cloud, and seed time and harvest never have failed and never shall fail, except through the idleness and ineptitude of human kind. With the return of spring we must needs take a more cheerful outlook. The tide of life is rising once more after its long ebb, the song of birds is heard in the land, the colour begins to blush in the distant tree tops, we can see the buds near at hand visibly swelling. The healthy instinct and energy of work take possession of us, and how much there is to be done! Out of doors many days have been lost through the streaming rains, but we have let the weather hold us too long in its grip. Much can be done in spite of it, and, after all, things are seldom so adverse as they seem.

One main factor in success in gardening is to be beforehand. Better by far, in most things cultural, to be a few days too early rather than a week too late. "That's a doctrine that won't hold water," some grumbler will say. "Those Ashleaves I set last year, on purpose to have them extra early, got caught by the frost and never came in till a fortnight later than some that were planted a month after them." That may be very true, but possibly a little more forethought—a few hoops and some mats to cover them for a night or two, or even a little dry Fern shaken down over the rows might have saved the disaster. We very often accuse the untowardness of circumstances when we ought to lay the blame on the last persons we are apt to think of—ourselves.

The right time, of course, is the best time, and in all garden work it is easy enough to know it even to a day, but of the two alternatives we maintain that it is better to be a few

days too soon than to be too late. Too late! What a bitter cry that is, when all might have been well but for our own short-sightedness. How unpardonable, when we must needs write it in the dust of our own neglect. The trenching that should be done in winter put off indefinitely, when an hour or two seized, as opportunity and a clear sky offered, might have got it all done in good time for the sowing which must now be delayed; the seedlings allowed to run up in the seed-pan, when a single half hour's work would have seen them potted off, to grow apace for their next shift; the cuttings left pot-bound to get stunted for good and all for want of a timely move. There are few, indeed, who have not to blame themselves, some time or other, for putting aside some unwelcome job in favour of one more light and pleasant, though the one was pressing and the other of little consequence.

Nothing repays one for one's trouble more fully than garden work done when it ought to be done. Whether we are professional gardeners or mere amateurs it matters not, the principle holds good. How many instances recur to mind in every day practice. Take a case in point. The right time comes to take cuttings of some plant or shrub one wishes to increase.

Last year, perhaps, the opportunity was allowed to slip, and with that lash of conscience to drive one on, the thing is done. It takes just ten minutes to cut, make, and put in a potful, and to place them in the frame or whatever position is the most suitable at the moment. The pot is cared for with the rest of its neighbours, and weeks after one comes by without having, perhaps, in the interim bestowed much individual care or thought upon it, and, behold! the cuttings have rooted and are growing away strongly. Many a plant on our greenhouse shelves at the present moment is the result of the work of a few spare minutes.

Now and then it may happen that we should have done better to wait awhile—it is easy enough to be wise after the event—but in our uncertain climate we are bound to take some risks. The chances are that nine times out of ten we gain more than we lose by being well to the fore. Then let us plant and sow and prune our Roses, and carry on all our timely garden operations with cheerful hearts, doing our best and letting no opportunity slip for lack of force and perseverance. We will hope, moreover, for a more prosperous season, with sunshine and shower just when both are most

wanted. Yet let us take it bravely as it comes, believing that the all-wise Providence, who visits the earth and blesses it, will also in due season bless the increase thereof.

## PLANTING TREES AND SHRUBS IN MARCH.

**P**ROVIDED the weather is open and the ground is in working order the planting of trees and shrubs can be carried on in March. There are, however, a few subjects which are better left until April, viz., Hollies, Magnolias, the Tulip Tree, and any rare or choice plants that require special attention. The two great points to bear in mind in planting trees and shrubs, especially evergreens, are, firstly, the amount of warmth and moisture in the ground; and, secondly, the state of the weather for a week or two after planting. Usually the ground is at its coldest in the beginning of March, but about the middle of the month it begins to get warmer, and, being then in a moist condition as well, plants begin to make fresh roots freely. The weather after planting is also an important factor in determining the future of fresh-planted subjects. Thus, if the cold, drying, easterly winds so often experienced in an English spring should set in, then plants will suffer badly, as they get dried up before they have made sufficient new roots to supply the amount of moisture they require. On the other hand, a fortnight of moist weather—even if cold—after planting will establish them sufficiently to withstand almost any weather afterwards.

Spring planting of most hardy trees and shrubs is best done as early as possible, especially with the commoner and hardier kinds, as, though the ground may be cold, yet the plants get settled down and are ready to make a start as soon as the ground is a little warmer. There is also more moisture in the air during the early spring than there is later on, and therefore plants do not suffer from drying winds, which, after all, are the greatest enemy to newly-planted trees and shrubs.

At the moment of writing the weather seems to have set in with spring-like warmth and sunnier skies. These conditions will help on the planting. The ground will soon get drier, and the sowing of seeds proceed more easily than has been possible of late. It is to be hoped the present pleasant weather will continue for many weeks.

*Bagshot, Surrey.*

J. CLARK.

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

March 16. — Royal Botanic Society's Flower Show.

March 22. — Royal Horticultural Society's Drill Hall Meeting.

April 5. — Royal Horticultural Society's Drill Hall Meeting.

April 8. — Truro Daffodil Show (two days).

April 12. — Brighton Horticultural Show (two days).

**History of the Royal Horticultural Society.**—We have received "A Short Historical Sketch of the Royal Horticultural Society," by Sir Trevor Lawrence, Bart., V.M.H., the president. Sir Trevor first outlines the formation of the society in 1804, the granting of the Royal Charter in 1809, and passes on to mention the vicissitudes through which the society passed when its home was at South Kensington, the famous Chiswick shows, the plant collectors sent out by the society, and, finally, the more recent history of the society, which is a record of progress.

**Horticultural Club.**—A delightful evening was spent on Tuesday last at the Hotel Windsor, when a lecture was given by the Rev. Professor Henslow on "The Use and Abuse of Botanisng." There was a large attendance. A full report will be given next week.

**Royal Botanic Society: Horticultural Exhibition.**—From June 6 to June 11 there will be held in the gardens of the Royal Botanic Society, Regent's Park, a grand horticultural exhibition. Conferences and lectures on gardening will be held during the exhibition. Gold, silver, and bronze medals and diplomas will be awarded. The exhibits will be very comprehensive, comprising all plants and horticultural sundries, and there will be also botanical, colonial, and art displays. Applications for space must be made on the official form and sent to the offices of the society, Botanic Gardens, Regent's Park, London, N.W., before May 1.

**Mr. E. W. Gilbert.**—Amongst the honours conferred by his Majesty the German Emperor, on the occasion of his birthday, we notice that Mr. E. W. Gilbert received the High Order of the House of Hohenzollern. Mr. Gilbert was formerly in the gardens of the Duke of Sutherland at Trentham, and also in the gardens of her late Majesty at Frogmore.

**Primulas for waterside planting.** Mr. D. S. Fish, in his interesting notes on the above on page 93, states that seed of *Primula sikkimensis*, after being dried, takes a year to germinate. However, that is not always the case, as we sowed it here on January 18, and the seedlings were pushing through the soil by the end of the same month.—G. W. KERR, *Baker's Old Hall Nurseries, Wolverhampton.*

**The garden city movement in Scotland.**—A meeting to promote the garden city movement in Scotland was held in the Hall of the Society of Arts, Edinburgh, on the 29th ult. The chair was occupied by Principal Hodgson, and a large number of ladies and gentlemen attended. After a sympathetic speech by the chairman an address was given by Mr. Thomas Adams, Secretary of the Garden City Association, London, regarding the objects of their association and its manner of working. The proposal of a similar one for Scotland had, he stated, been made chiefly on account of the new naval base at Rosyth, where it was estimated about 30,000 people would be settled in the course of a few years, and it was considered that every opportunity should be taken to have this new town built on scientific principles. It was thought that a Scottish Association would be able to bring more influence to bear with the Government, in order to induce them to lay out the town on the garden city principle. Mr. Adams moved that a Garden City Association be formed in Scotland, and that an executive committee be appointed. This was seconded by Mr. H. F. Kerr, architect, and agreed to. An in-

fluenial committee was appointed. In the evening Mr. Adams addressed a crowded meeting in the Queen's Hall, Edinburgh, under the auspices of the Edinburgh Citizens' and Ratepayers' Union, Sir Colin G. Macrae, president, being in the chair. Sir Colin Macrae, in the course of his introductory speech, expressed sympathy with the objects of the Garden City Association, but stated that the union was not to be held as committing itself to everything which was said. Mr. Adams then proceeded with his lecture, which was of an interesting character. Canon Rawnsley moved a resolution in support of the movement, and it was seconded by Dr. Clouston, and unanimously agreed to. The Rev. Dr. Glasse moved a vote of thanks to the speakers, and a similar compliment to the chairman was moved by Mr. J. W. M'Hattie, superintendent of Edinburgh City Parks. — S. ARNOTT.

**Proposed Gardeners' Association.** At a meeting of the provisional committee, held on March 8, it was decided to arrange for a public meeting of gardeners to be held in London on the second day of the Temple show (June 1), when a scheme for a National Association of Professional Gardeners will be submitted for approval. It was also decided to ask for donations to enable the committee to print, for circulation all over the country, a pamphlet setting forth the main objects for which the association is to be formed, and the advantages of co-operation and registration. Donations should be sent to the secretary, *pro tem.*, W. Watson, Descanso House, Kew Road, Kew.

**Gardening at Earl's Court Exhibition.**—It is always satisfactory to note the gardening at this popular place of resort. Irrespective of this, encouragement has been given by the enterprising directors there during the last few years to the exhibitions of some of our special societies—the National Dahlia Union and the National Sweet Pea Society—privileges which are, I believe, to be accorded this season. Special efforts are being made at Earl's Court this year to vary and improve the gardens surrounding the exhibition, which will be devoted this season to a comprehensive display of Italian art. Messrs. G. W. Bellgrove and Co., the well-known decorative florists, &c., of Fulham Palace Road, Hammersmith, who did a portion of the garden work last season, have this year been entrusted with the whole undertaking. Palms, some 15 feet to 20 feet in height, will, amongst others, form some noble material for effect, as will *Dracænas*, *Grevilleas*, *Ficus*, and other suitable sub-tropical subjects. In the western gardens an Italian garden is being formed, in whose vicinity will be—appropriately—a rich display of Italian statuary. Last year a praiseworthy attempt was made to give visitors a glimpse of Old English gardening.—Quo.

**Effects of the weather on the nursery trade.**—The wet weather of the past twelve months has been the cause of a great deal of loss to farmers and agriculturists generally, but its effect on the outdoor nursery trade has also been a very bad one. Not only has it caused loss through the swamping of low-lying and heavy lands, and the consequent ill-effects on the stock growing thereon, but it has also caused much less planting throughout the country than would have been the case if this winter had been a normal one. Taken altogether, the autumn trade was fairly good, and the prospect was promising. The open weather, with a fair rainfall, were inducements to planting, and the majority of outdoor nurseries were comfortably busy, though not hard pressed. The torrential rains of January and early February, however, seem to have stopped all planting, and the effect has been felt by practically every nursery in the country. About five inches of rain have fallen since January 1. As a rule, an open February—that is, one free from hard frost and snow—is one of the best months in the year for the nursery trade, but this year it was a very bad month generally, even though it contained an extra day. The heavy rainfall, followed by a spell of wintry weather, has made nearly all intending planters fight shy of buying plants, to have them

practically swamped directly afterwards, as there is no guarantee that when the frost and snow disappear we shall not have a return of the heavy rains we have become accustomed to. In many low-lying places, where much planting was done in the early autumn, the plants have suffered through standing in water for the greater part of the winter. In ordinary seasons the autumn is the best time for planting, as the ground is moderately warm, and the plants will make fresh roots in a month or so; but this season they were subjected to heavy cold rains soon after being planted, and, with a lower ground temperature, they have made no fresh roots, being really in the same, or even worse, condition than when they were planted. It is to be hoped that a spell of drier weather will set in shortly to gladden the hearts of nurserymen generally, as the present season has been bad enough to make even the most hopeful feel rather despondent.

**The Departmental Committee on Fruit Culture** appointed by Lord Onslow held sittings on Wednesday and Thursday, the 24th and 25th ult. The following members were present: Mr. Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Monro, Dr. Somerville, Mr. P. Spencer Pickering, the Rev. W. Wilks, and Mr. Ernest Garusey (secretary). Evidence on behalf of the Board of Agriculture and Fisheries was given by Mr. Rew, of the Statistical Department, Mr. Brooke-Hunt, of the Educational Department, and Sir W. T. Thiselton-Dyer, K.C.M.G., Director of the Royal Gardens, Kew. Evidence on horticultural instructors for county councils was given by Mr. Luckhurst (Derby), Mr. Goaring (Sussex), and Mr. Ettle (Somerset).

**National Amateur Gardeners' Association report.**—The report for 1903 of this institution, together with syllabus of lectures and list of special prizes for 1904, has just been issued, and is most interesting reading. For the small annual subscription (5s.) of its members it is really astonishing what the executive are able to accomplish. Twelve meetings were held last year, and on ten occasions lectures were given by many of the leading horticultural authorities on subjects with which they are specially identified. Several of the lectures were illustrated by lantern views, which added considerably to the interest of such meetings. From March until November the monthly exhibitions always have something in them to interest and please, serving the purpose of educating the inexperienced amateur. Visits to gardens and other places of horticultural interest were organised last season. The conversazione and exhibition in July last was pronounced a great success, the exhibition on this occasion being one of the very best efforts ever inaugurated by the association. The library continues to provide useful knowledge to those who find time to read. The collection has grown during the year. Financially, the association is in a most satisfactory condition. Great care is observed in the management of its affairs that money is not wasted, and as a consequence there is a good balance on the right side of assets over liabilities. The meetings are held on the first Tuesday in each month, at seven o'clock in the evening, at Winchester House, Old Broad Street, London, E.C., this being a good central position and a meeting-place well known throughout the country. The lectures provided for are the following: April 12, "Plant Propagation," by Mr. A. T. Hemsley. May 3, "An Hour with the Daffodil," by Mr. Arthur R. Goodwin, F.R.H.S. June 7, "Orchids," by Mr. E. F. Wicks, F.R.H.S. July 5, conversazione. August 9, "Hardy Perennials," by Mr. E. H. Jenkins, F.R.H.S. September 6, "Carnations," by Mr. S. Hillman. October 4, "Early-flowering Chrysanthemums," by Mr. D. B. Crane, F.R.H.S. November 1, "Alpine Plants," by Mr. Hemsley (Messrs. J. Cheal and Sons). December 6, "Manures and their Uses," by Mr. H. F. Moore. January 3, 1905, presidential address, by Mr. T. W. Sanders, F.L.S. The foregoing clearly indicates a useful year's work, and serves to prove how much is being done by amateur gardeners in an unostentatious way.—C.

**New schools of forestry.**—Lord Onslow, President of the Board of Agriculture, has stated that he is going to start two schools of forestry with the view of training men as woodmen and giving instruction to young men who intend to be land agents. Lord Powis has promised land in Wales for one school.

**Lichens.**—At a meeting of the Edinburgh Field Naturalists' and Microscopical Society, held in Edinburgh on the 24th ult., a paper on "Lichens" was contributed by Mr. James M'Andrew, who has devoted many years to the study of such subjects, and who, when resident in Galloway, was a recognised authority on the botany of the province. Mr. M'Andrew's paper was an excellent one. He was warmly thanked for the paper.

**Aged Roses.**—Some years ago I noticed, either in *THE GARDEN* or some other horticultural journal, that there was at Keevil Manor, Wiltshire, a bed of the old Cabbage Rose, which the owner, Sir J. Wallington, could vouch for as being in the possession of his family for eighty years. It would be extremely interesting if the readers of *THE GARDEN* could give similar instances of old age concerning any special Rose plants in their possession. There is an erroneous opinion that standard Roses are very short lived, but I imagine we should be surprised if the age could be given of some old specimens to be found in the gardens of England, and even in the humble cottage plot.—**PHILOMEL.**

**New botanical laboratory at Cambridge.**—The opening of the new university buildings at Cambridge by the King on the 1st inst. marks another stage in the growth of the university to meet its growing needs, though up to the present the needs have kept well in advance of the growth. These new buildings include a new law school and library, a new botanical laboratory, a new medical school, and a new geological museum. They stand in the heart of Cambridge, on a site that was formerly part of the grounds of Downing College. It will be some time before they are all completed.

**Fruit growing in Scotland.**—Mr. Hodge, Blairgowrie, the Scottish representative of the departmental committee on fruit culture, met with a number of fruit growers and others interested in the subject belonging to the Edinburgh district in Edinburgh on the 23rd ult. The attendance was highly representative of market growers, private gardeners, and nurserymen. Mr. Methven presided. Mr. Hodge explained the objects of the meeting, and asked those present to express their views, which they did pretty fully; the opinions being generally to the effect that there were great capabilities in the district for extension of fruit culture. The difficulties to be encountered were fully dealt with, and the various speakers were afterwards heartily thanked by Mr. Hodge for their valuable expressions of opinion. Mr. Hodge also gave a large amount of interesting information about fruit growing at Blairgowrie. Mr. Sinclair, Prestonkirk, was selected to give evidence on behalf of the Edinburgh district before the committee.

**Lilies in California.**—I had an experience in the culture of Lilies last year which will, I think, be of interest to your readers. I planted a considerable number of the Sierran form of *Lilium washingtonianum* and of *Humboldtii* var. *magnificum* in my garden at The Terraces on a very gravelly slope. As the spring was a dry one I had a ditch dug above them and irrigated at intervals until midsummer. The water percolated to a depth of 1 foot to 2 feet, this subirrigating them. In both root growth and bloom the results were unusual. *L. washingtonianum* is very impatient of surface moisture. This experience reminded me of a lot of this Lily that I noticed at perhaps 7,000 feet in the Northern Sierras some years ago. It was midsummer, but quite a bank of snow above them was melting and percolating, so as to keep the sandy *débris* that they grew in wet. They grew out of low underbrush and were in full bloom at the time. I am inclined to think that many Lilies are pleased to grow in very loose, well-drained soil, but with abundant moisture within reach of their roots. I had *L. Henryii* for the first

time last year. It came late and a little dry, and I gave the bulbs a variety of situations. Nearly all flowered, and I was pleased with the flowers; but if the lax, rather limp habit of the stem is characteristic I do not like it. A Lily should be able to stand alone. My bulbs increased very much in size, and in some soils there was a phenomenal increase of bulblets along the stem below the ground. The Burbank Parryii × *Pardalinum* hybrid Lilies vary considerably in propagating qualities. Some of the pure yellow-flowered forms propagate very slowly from scales, but several have increased rapidly. Strangely enough, several which show the *Pardalinum* blood strongly increase the most rapidly. They are fragrant, but the flowers are not up to standard. I planted some *Gladiolus* in the open last August, and at Christmas picked a bouquet of very good stems. At the same time I had *Narcissus*, *Soliel d'Or*, *Grand Monarque*, and *Paper White* in the open. My first flowers of *Narcissus Henry Irving* and *Princeps* came recently, as well as a few *Tulips Proserpine*.—**CARL PURDY, Uriah.**

**A Note from California.**—The winter has continued to be a remarkably open one in Northern and Central California. The rainfall has not been heavy, but has been well distributed, and in thirty-five years' experience here I have never seen a winter with clearer and brighter days. The temperature has not at any time been low, and everything is unusually promising at this date. In the South Central and Southern portion of the state it has been disastrously dry. Up to this time Los Angeles has not had rain enough to start the grass, while farther south it can be said that they have had none. At the present time their larger horticultural and agricultural interests are little harmed, because they depend upon irrigation; but cattle and other grazing animals are dying of starvation in great numbers, and with little hope of saving any. Unless the fall of snow is very heavy in their higher mountains from this on they will have a short supply of water for irrigation. A feature in the agricultural situation here is the large purchases and shipments of hay to the Orient for the Japanese and Russian Armies. As our own supply of last year's hay was short, it is a disturbing feature.—**CARL PURDY, Uriah.**

**Heather and Snowdrops.**—As some correspondents have recently mentioned in *THE GARDEN*, pleasing combinations of winter-flowering plants are sufficiently rare to make it worth while to place on record any that may come under one's notice. In addition to those already mentioned of the association of *Jasminum nudiflorum* with *Ivy* and *Cotoneaster*, I should like to draw attention to one that I saw recently, and which seemed to me to be the most attractive mingling of winter flowers I yet had met with. It is so simple that I wondered it has not been thought of and practised long ago; perhaps it has, but I never remember to have seen it before.

The plants used were *Erica cinerea* and *Snowdrops*. They are planted in large beds in the terrace flower garden at Windsor Castle, upon a slope facing north. Looking down upon them as one is able to from the walk above the orangery they are a delightful feature in a garden, where at the present time there is nothing else in flower to relieve the monotony of evergreen shrubs and desolate borders. The Heaths have well filled the beds, and in themselves make a bright and cheering display, but when peeping through the masses of reddish Heath flowers

one sees the pure white drooping bells of the *Snowdrop*, then the picture is indeed a pretty one. The *Snowdrops* are not dotted here and there, but there is an abundance of them; they are all over the beds, and by their numbers effectually do away with any danger of spottiness in the bed; had this been the case the effect would have been such as to make the absence of the *Snowdrops* more desirable than their presence. Happily, however, this is not the case, the bulbs were planted with a proper knowledge of their uses, and the result is a charming association of winter flowers.—**A. P. H.**

**English Potatoes.**—It will be interesting news to those who have the Potato so much at heart to know that its cultivation is declining. In 1903 the Potato area was less by 10,000 acres than 1902. This is a decrease of 60,000 tons, or 1,200,000 bags.

**New Potato Sutton's Favourite.**—When so much is being written about some of the new Potatoes and their immense superiority over others, one is diffident in bringing any new sort forward that may appear less known than its merits deserve. For two seasons I have grown *Favourite*, and though last year was so unfavourable it was surprising to find the crop so good; I am sure that none of the new Potatoes that are so costly at the present moment will beat *Favourite*. It is one of the best in flavour; and this should be the chief consideration, and then cropping. With regard to the latter I was delighted with it. There was a very heavy crop, the tubers being of good shape, with scarcely any small ones; the skin is smooth, and there is an absence of deep eyes, so that there is no waste. The flavour is excellent. There was no disease whatever, and this was more noticeable as the seed was home-grown. Other varieties a short distance away were badly affected. The tubers also keep well. At this date—the end of February—they are in splendid condition, being firm and quite sound. For many years the *Windsor Castle* has been our favourite midseason Potato, but *Favourite* will now take its place, as it crops heavier.—**G. WYTHES.**

## NOTES ON HARDY PLANTS

### CYCLAMEN IBERICUM.

**B** OISSIER, in his "Flora Orientalis," makes the Iberian *Cyclamen* a variety of *C. Coum*, and it may well be considered a geographical form of that species. The corm, however, is larger, and it is more floriferous than that species. It also comes into flower earlier, and while the leaves of the typical *C. Coum* are of an uniform dark green, those of this plant are distinctly zoned with white. The flowers of the



CYCLAMEN IBERICUM IN THE HARDY ALPINE HOUSE AT KEW.

typical form are bright red, with a dark purple spot at the base of the petals. From this colour to white there is every gradation of shade in the cultivated forms. It is found growing in mountain woods in the Caucasus and Northern Persia at an elevation of 2,000 feet, and is quite hardy in this country, but is apparently more at home in the extreme southern counties. Here among Ferns and round about trees where the grass is thin it spreads rapidly, producing its flowers in abundance in the early months of the year. For cultivation in pans, as shown in the accompanying photograph, it is better than *C. Coum*. Three corms are sufficient for each 7-inch pan. This should be well drained, and the soil should be loam, with sand and leaf-soil added. Provided the drainage is perfect they may remain undisturbed in the same pans for two or three years with a little top-dressing annually. After flowering they should be plunged in ashes and fully exposed to the sun to ripen the corms thoroughly, removing them to a cold frame for the winter. Under this treatment they flower profusely at the beginning of February. Plants grown as *C. Atkinsi* are evidently forms of this species.

### COLCHICUM CROCIFLORUM.

This charming little plant looks so much like a *Crocus* at the first glance that the name given to



COLCHICUM CROCIFLORUM IN THE HARDY ALPINE HOUSE AT KEW.

it is an excellent one. The flower, however, possesses entirely the *Colchicum* type of structure in all its organs. It is quite different in marking and colouration from all the other species in cultivation, having a distinct character of its own. While we have lilac, with every shade of intermediate gradation to pure white in *C. autumnale*, *C. arenarium*, and *C. montanum*, in the present species the segments have a white groundwork, down the back of each of which run various markings, which extend a little way down the tube of the flower. In some forms the markings consist of five purple lines, others have only one broad or narrow line, while others are suffused with pale lilac all over the back of the segment. Produced six to seven from each corm, the bright green shining leaves are linear, with obtuse points. They are borne at the same time as the flowers, but do not attain their full size till some time after the flowering season is over. The number of flowers produced from each corm varies from four to six, and they have a tube about 3 inches in length. This species was first found by Sewerzow in Turkestan, and since by Dr. A. Regel in the Alatan mountains. The latter sent it to Kew, where it flowered in January, 1883. Although introduced so long ago, it is still a rare plant in gardens, not increasing so readily as many of the other species of *Colchicum*.

The name *crociflorum* has been applied to two other plants belonging to this genus, one a form of *C. autumnale* and the other a form of *C. montanum*.  
Kew. W. IRVING.

### ANEMONE HEPATICA TORCH.

This bright *Hepatica* was the first of all to bloom with me this year, and it did its best to brighten a somewhat gloomy time in the garden, caused by so much rain and so little sun. It is not yet in commerce, but is one raised by Mr. James Allen, who, many will be sorry to know, is now in very poor health, and unable to go about among his favourite flowers. It is of the type of the common *Hepatica*, but with larger and brighter flowers than the best of the red forms in ordinary cultivation. The colour is considerably brighter than what we call the red *Hepatica*, but which is, in reality, better described by some of the old writers as peach-coloured. One may raise many seedlings without being so fortunate as to secure one like this. It is quite distinct from such varieties as *A. (Hepatica) splendens*, and its flowers are as large as those of the *angulosa* section of *Hepaticas*.  
S. ARNOTT.

### GALANTHUS PLICATUS FRASERI.

It is well known to many Snowdrop growers that *Galanthus plicatus* (the Crimean Snowdrop) has an unaccountable tendency to die off and disappear. This is not attributable to the dreaded Snowdrop disease (*Botrytis galanthina*), but to some other cause. This is, to say the least of it, disappointing, for despite its rather small flowers in proportion to its foliage, *G. plicatus* is a handsome Snowdrop. It is not generally known, however, that there is a superior form of *G. plicatus* which appears to be much more permanent than the typical form, and which is also finer in other respects, having larger leaves and finer flowers. It was originally found in the garden of Mr. P. Neill-Fraser of Rockville, Edinburgh, and was selected by Mr. W. B. Boyd. It is considerably superior to *G. plicatus* as we commonly meet with it, and, while from time to time I have lost clumps of the type in my own garden, I find *G. p. Fraseri* thrive and increase. Its ornamental leaves have the reduplication of the type, but the flowers are larger, and thus more in keeping with the fine leaves.  
S. ARNOTT.

## ANNUALS FOR THE GARDEN.

If one were to remark that as a class both tender and hardy annuals are generally neglected, many would receive the statement with derision and not a few others challenge its accuracy. It is not absolute neglect so much, perhaps, as indifference. In all probability in this as in other matters both the garden and the plant suffer from what might be aptly called a plague of cheapness. Doubtless, too, this cheapness is in one sense directly responsible for the lack of display of beauty and of profuse floriferousness that so frequently characterises the growth and flowering in our gardens of many of the

best of annual flowers. And so long as the plague may last it will be of little use to insist that "not more than one dozen seeds must be sown," when the packet just opened may contain several hundreds. Yet the value of a single self-sown seed, whether of *Nemophila* or *Mignonette*, will be more than a match, whether in early or late flowering, to say nothing of the intervening display, for fifty or 100 seeds as ordinarily sown in that most offensive small circular patch little more than a dinner-plate in size. At this moment it is little good talking or writing about the value of autumn-sown seeds. Yet I have a clear recollection of October-sown seed of *Nemophila insignis* giving early and indescribably rich patches of colour month and month, and again of the same plant from a solitary seed producing a carpet of the richest blue nearly 4 feet across. How many hundreds of flowers such a plant would produce I will not attempt to speculate, but it must be enormous. Not only so, for all the early summer flowers from such a plant are infinitely improved in both colour and size compared with the little circular patch into which a whole packet of seed was emptied, not sown. And what is true of one kind is equally true of many, and the remedy is in the hands of everyone who attempts to sow seeds.

To sow thinly at the proper time is advice of long standing, and is too often disregarded. A sure remedy against overcrowding of the seedlings is to sow thinly and prick them off, and as many good annuals object to transplanting to sow a seed or two in a pot and transfer bodily to its destined place. In this way a dozen or fifty plants of *Mignonette* or *Nemophila* may give surprising results with no more labour, perhaps, than that entailed by the ordinary sowing and "timely thinning."

The same thing may be done with the *Stock*, and in this case assist in modifying to some extent the heavy loss that transplanting often entails. The single pot system may with advantage be adopted for the beautiful *Sweet Sultans* as for the very popular *Sweet Peas*. Thus may the ill effects we now see be greatly reduced by two simple methods—viz., sowing in small pots or pricking the seedlings off before planting them in their permanent places. In conjunction with the foregoing early sowing is most desirable, and in some instances the highest cultivation.

In this connexion we may perhaps mention the *Balsam* or *Zinnia*, or both, as subjects seen rarely in good condition in the open. The pot-grown examples of the first only feebly represent the vigour or the boldness or beauty of the plant when grown unchecked. It is much the same with *Zinnias*, and these generally are poorly grown. To some extent this is due to a check in the early stages, and when this occurs the *Zinnia* rarely recovers. It is a vigorous plant, and one for which the highest cultivation is well repaid. In the same category we may place the *Amaranthus* and *Celosia*, both highly desirable for large beds or the boldest groups or masses, and now and again appearing as a groundwork to the well-known *Humea elegans*.

*Petunia verbena*, *Phlox Drummondii*, and *Ageratum* are others that well repay for liberal care. In all of these more or less tender kinds the systematic pricking off of the seedlings will naturally receive attention, and this, with quick growing after, will be very beneficial.

I have not as yet mentioned the endless beauty and variety found in the *Aster* family—a family, by the way, almost exempt from the "plague" to which I have earlier referred. It may not be generally known how much these

plants appreciate a dressing of old mortar rubbish with the soil, and especially so in heavy ground. Where this is not available a dressing of lime should be given the land quite early in the season before planting.

The Poppy is also sure to receive attention, and it is well worthy of it. But here again comes that insufficient appreciation of large groups with ample space for plant development duly considered. For example, what splendid openings there are for such as these or the Cornflower in the forefront of many a shrubbery border, where the leafy soil will support them to the full in the time of flowering. The sloping bank, too, as it stretches away in the distance from the terrace lawn or garden or the woodland may be beautified by a little thought and a few seeds of some such plants. And in the borders where openings are sure to occur will be found room for Gaillardia, Helichrysum, Acroclinium, Rhodanthe, Candytuft, Chrysanthemum coronarium, and other kinds, Larkspur, Lupin, the elegant Gypsophila or curious Nigella, Salpiglossis, Dianthus, to say nothing of those Californian worthies, Phacelia, and others far too numerous to give in detail. Then there are bolder things, as Wigandia, Ricinus, Maize, and draping or climbing plants, as Convolvulus, Tropæolum, and Lophospermum, not omitting the elegant grasses that possess a characteristic beauty. But whatever may be used, there should be only one object—viz., to present the best possible picture that each plant is capable of. In other words, let it so be done that the importance of these cheaply-obtained annual flowers may be obvious to all at a glance, and be found worthy of more frequent imitation.

Hampton Hill.

E. H. JENKINS.

## THE ROSE GARDEN.

### BEDDING ROSES OF FREE GROWTH.

**A**RE we right in requiring that our bedding Roses should be of compact growth? We condemn the flat, unnatural style of exhibiting decorative Roses, yet there seems to be a desire to have the bedding kinds made to pattern. I must confess to a partiality for a mass of colour, but this does not debar me from welcoming some irregular growths to relieve the formality. Take, for instance, that popular Rose, W. A. Richardson. If grown in bush form it will produce a glorious mass of blossom, but its climbing or extra vigorous nature will assert itself, and consequently there are many growths darting up here and there.

I consider a large bed of Gloire de Dijon when well grown and some of the growths bent over to be one of the prettiest features in the rosery, and there are other sorts quite as useful and beautiful. Just to name a few, in addition to those already mentioned, there are: Alister Stella Gray, which is very beautiful as a bedder, and so free and perpetual, too, its pretty clusters of nankeen yellow buds and blossoms a dream of beauty. Bardou Job and Gloire des Rosomanes are two large-flowered single and semi-double Roses of much merit, not beautiful and fleeting like some, but perpetual. I have never yet met anyone who was not charmed with the rich velvety flowers of Bardou Job or the glowing scarlet of Gloire des Rosomanes; and how beautiful they are when massed, especially if good bold groups are planted. Beds, some 20 feet across, filled with such Roses have a noble appearance, and they would be even more so if a few short standards of the same were planted in the centre to lift them up a little. I further strongly recommend the following as suitable for forming stately beds such as I have alluded to:—*Tea and Hybrid Teas*: Longworth Rambler, Mlle. Marie Lavalley, Mme. Wagram,

Belle Lyonnaise, Germaine Trochon, Billiard et Barré, and Cheshunt Hybrid. *Perpetual Scotch*: Stanwell Perpetual. *Rugosa*: Mrs. Anthony Waterer, Conrad Ferdinand Meyer, and Blanc double de Courbet. *Multiflora*: Leuchstern, Electra, and Crimson Rambler. P.

### SPRING PLANTING.

I IMAGINE many postponed the usual autumnal planting in the hope of a drier time prevailing later on, and, although this is not the case, doubtless there has been nothing lost by waiting, as the plants have fared much better heeled in than planted where so much water abounds in the soil and subsoil. Surely one may reasonably hope for better weather in March, and with a fine heap of prepared compost ready so that each plant may receive a shovelful at the time of planting, the plants will have a good start. I am presuming that the land was deeply dug or trenched some time ago. How necessary it is to look after the thorough drainage of the beds and borders, not nearly so much attention is given to this matter as its importance warrants. A water-logged soil is most inimical to the welfare of the Briar stock, although this stock revels in a somewhat stiff soil, as may be seen by the examples in the hedgerows. The seedling Briar, with its long tap roots, also thrives best where its roots can penetrate deeply without being injured by stagnant water.

I think condition of soil is more responsible for success and failures in Rose growing than stocks. Many say that they cannot grow certain kinds of Roses, and that the seedling Briar is a failure with them. Let such kinds be planted out under glass in borders as carefully prepared as the market grower prepares them and not one will fail. Now if the fault was in the stock such Roses would not grow under glass. I readily grant that some sorts possess a more delicate constitution than others, and this is responsible for some failures outdoors. But no rosarian would plant these very tender Roses out without giving them a good sunny situation, at the foot perhaps of a wall or fence. Where this is not practicable rather than lose them it would be better to dig them up in autumn and heel them in in a shrubbery or at the foot of a wall or fence, then replanting in March and April. This used to be the old style of treating the dwarf Tea Roses. They were lifted and potted up every autumn and placed in cold pits, and I am not sure this would not be a good plan to adopt now in districts peculiarly affected by spring frosts or where other conditions are unfavourable to the Tea Rose. When planting in spring always prune the growths beforehand, even down to three or four eyes on each shoot.

PHILOMEL.

### CARNATIONS IN THE TOWN GARDEN.

**D**URING recent years town gardening has come into greater prominence, and this is due in a large measure to the influx of people from the country to the towns and the consequent rise of suburban houses and gardens. It is due also, in perhaps as great a degree, to the increased interest in gardening that has lately been apparent. It is not too much to say that everyone is fond of the Carnation, and there can be no town gardener who would not willingly include it in his collection of plants if only he were able to grow it successfully. The Carnation has many good points as a town garden flower; the plants bloom freely and for a long time, the flowers are excellent for home decoration, as they last well when cut, some of the varieties are sweetly scented, and a charming variety of form and colouring is now to be found among them. Some writers of recent date have gone so far as to say that the Carnation is not generally a satisfactory plant for the town garden, but it may safely be said that they had not exhausted the methods of culture or they would never have reached so pessimistic a

conclusion. While it is true that many fail to grow Carnations successfully in a town garden, it is no less true that others grow them well under similar conditions, and find that few plants give more pleasure during the summer months. It has been truly said that the Carnation will thrive where the Rose will not grow, and no further recommendation of its virtues as a town garden flower could be wished, for we have seen Roses that carried away prizes at an important exhibition gathered from plants grown within six or seven miles of Charing Cross. Like every other plant, the Carnation loves pure fresh air, and it would be folly to say that it will grow as well in the impure, often fog-laden atmosphere of a large town as in a country garden. Some plants are more accommodating than others, however, and fortunately the Carnation is one of them. Give it reasonable care and intelligent cultivation and the results will not be disappointing. It should not be forgotten that the Carnation is hardy; many seem to have the idea that if allowed to remain out of doors all the year round it will be killed by frost. Nothing of the sort if the proper varieties are grown. The wild Carnation (*Dianthus caryophyllus*), from which the varieties of to-day are descended, is still found growing on some of the old castles in England.

### SOIL AND POSITION.

To grow any plant successfully it is necessary, or, at any rate, it is a very great help, to know something of its likes and dislikes. More particularly is this the case when the garden in which one has to work is at a disadvantage so far as soil and situation are concerned, then, more than ever, careful attention to detail makes all the difference as to the results. It is important, therefore, to know that the Carnation likes a warm and sunny position. One would naturally come to this conclusion after learning that the Carnation grows wild on castle walls. It is said never to have been found growing wild in hedges and fields, where, of course, it would have a certain amount of shelter and shade. It is not always advisable when cultivating a plant to give it exactly the same soil and position as it enjoys when growing wild, for the altered conditions of life, and probably of the plant itself, must be taken into consideration. Some general idea of the conditions most likely to suit it may, however, be obtained from knowledge of a plant's position and environment as growing wild. In the shade Carnations lose vigour, their soft stems and growth are likely to be adversely affected by wet, and the flowering season is shortened. Choose, then, a border that is well exposed to the sun, but which at the same time is not draughty, for cold winds play havoc with a bed of Carnations. In a town garden there is not much danger of harm resulting from cold winds, for it is usually well protected by neighbouring houses and walls. Still, the point is worth bearing in mind. The

### SOIL

is an item to be carefully considered, for upon its composition and preparation depends in a large measure the success of the plants. The Carnation does not grow well in poor soil. One of our best amateur gardeners says: "It is very difficult to grow Carnations in very poor soil; even when it is carefully prepared they still feel its starving and drying influence, and show their distaste by unusual shortness of life." My experience of the soil of an ordinary town garden is that it can, with a little cultivation and manuring, be made a fairly good medium. If it is sandy or gravelly to a large extent, of course it is a more difficult matter to improve it. But even then the continual addition of road scrapings, dead leaves, kitchen garden refuse, and a good dressing annually of farmyard manure will work wonders. Usually, however, the town garden soil is too heavy and wet, although at the same time it is poor, i.e., deficient in plant food. Artificial manures are of great benefit to such a soil as the latter, while they are almost useless to the former. They are best if applied as a top-dressing when the plants are growing, and preferably in showery weather, so that the manure may be at once washed down to the roots.

In sandy or gravelly soil all the properties of the manure would be washed away owing to the porous nature of the former. To improve poor, heavy soil it should be well dug in the autumn, and left unbroken during the winter. The action of the frost pulverises the large lumps, and renders the soil friable and more conducive to root growth. Some manure should at the same time be dug in and buried about 6 inches below the surface. Then in early spring the soil should be dug over again; this will thoroughly mix the partially-decayed manure with the soil, and will also break up the latter and render it more suitable as a planting medium.

Autumn is usually considered to be the best time for planting Carnations, and for gardens in the country, where pure air and suitable soil are enjoyed by the plants, it is undoubtedly preferable, for they become well established before the winter, and are able to make a good start in the spring. But for Carnations in the town garden I have no hesitation in recommending spring as the best time for planting. If the plants are put in the ground in early autumn it is true that they are well rooted before the cold weather; but how many of them are worth anything when the month of March arrives? It will probably be found—for such I have known to be the case many times—that most of them have lost their centres, or the leaves are in a sorry plight. Hundreds of Carnations in town gardens are lost during the winter months as the result of the centres of the plants decaying; the wet gets in the axils of the leaves and remains there for days, or perhaps weeks, for, owing to the absence of sun, there is no chance of its drying up. We have had exceptionally wet winters lately, and the loss among town garden Carnations has been great. It is not the frost that kills them, but the continual damp in and around them.

T. H. H.

(To be continued.)

## TREES AND SHRUBS.

### CLIFTONIA LIGUSTRINA.

**N**INETY years ago this shrub was in cultivation in this country, for in 1814 it was figured in the *Botanical Magazine*, t. 1625. Whether it is in cultivation now is, I think, doubtful. It is, at any rate, exceedingly uncommon, and I do not recall having met with it anywhere in English gardens. In recent years it has been offered by American dealers as a hardy shrub, but what has been supplied under the name to Kew has turned out to be a species of *Cyrilla*, a nearly allied genus, but quite distinct. The *Cliftonia*—there is but the one species—is a native of Carolina and Georgia, and ought to be hardy in the warmer parts of these islands. It was first discovered by the famous old American collector, John Fraser. It is an evergreen shrub with dark green leaves, and bears a terminal spike of white flowers in May. As stated above, it is closely related to the *Cyrillas*, of which at least one species—

*C. racemiflora*—is in cultivation; but besides other distinctive characters it is readily distinguished by the flower scapes being terminal. It would be interesting to know from readers of *THE GARDEN* in America if the true *Cliftonia* is obtainable there.

### CYRILLA RACEMIFLORA.

**T**HOUGH this shrub was first introduced to Britain in 1765, it is now, as it always has been, a very rare plant. It is a native of North Carolina, and is said to occur in Florida, where it assumes the dimensions of a tree, also in the West Indies and even Brazil. If this be so, the species no doubt is one that varies considerably, and it is only the most northern representatives of it that are likely to be hardy in this country. The specimens in cultivation, at any rate, are from Carolina and Georgia, and they are small shrubs as yet. In several works this *Cyrilla* is spoken of as a greenhouse plant; no doubt this is correct for many parts of the country, but at Kew it has grown out of doors for several years past without protection. Of course, our recent winters have furnished no real test, but it is certain that it would flourish in the gardens of our south-western counties. On the question of hardiness it may be mentioned that the American botanist Nuttall records that in 1840 he found in John Bartram's garden, near Philadelphia, a tree of this *Cyrilla* 20 feet high, with a trunk 26 inches in diameter. Not only is the species pretty and distinct, it is also one of more than usual interest. Messrs. Veitch exhibited it in flower at one of the Royal Horticultural Society's meetings in 1901, and it is also offered for sale in some of the American catalogues.

It has deciduous, somewhat Privet-like leaves, 2 inches to 3 inches long, about 1 inch wide, and of obovate outline. The flowers are very small and white, and are crowded on slender cylindrical racemes 3 inches to 6 inches long. These racemes are clustered in a horizontal whorl at the base of the current season's growth, and appear in July and August.

W. J. BEAN.

## AN ENGLISH INDUSTRY.

### BULB GROWING IN SOUTH LINCOLNSHIRE.

**D**OWN in South Lincolnshire, and more particularly in the county division known as "The Ports of Holland," the growing of all kinds of bulbs for the wholesale market has of late years become a highly important industry. Spalding—one of the oldest towns in England—together with an outlying hamlet called Little London, devote at least 150 acres to the cultivation of bulbs, and the growers are mostly men of substance.

Other nurseries are to be found in the parishes of Moulton, Whaplode, Long Sutton, Boston, and Wisbech. The last-named, however, is in Cambridgeshire, but being just over the border of the county of Lincoln the soil is of the same rich alluvial character as that of the neighbouring shire.

Messrs. J. T. White and Sons are the biggest growers in the Spalding district, and recently I made a special visit to this neighbourhood on behalf of *THE GARDEN*, and was conducted over the firm's extensive grounds by Mr. Alfred Willis White, who is one of the junior partners. At this time of the year the most important part of the work is the raising of forced blooms for the markets of the large cities, great quantities being despatched by rail twice a week to London, Birmingham, Manchester, and even to far-off Edinburgh. In order to bring this about, during September the bulbs, in lots of some 300, are planted in thousands of boxes filled with 3 inches to 4 inches of ordinary soil, and laid out in the open. About the first week in December the boxes are removed to one of the houses, where a temperature of some 60° is maintained, and with moderate watering the bloom is ready to pull in the middle of January.

Mr. White told me that this year they have had nine large houses filled with the double yellow *Daffodil*, *Narcissus poeticus ornatus*, *princeps Horsfieldi*, *Emperor*, and others. Those that I saw made a very brave show indeed, and of these forced blooms alone several million heads will be gathered before the open air stocks are touched. Year by year the demand becomes greater, not for blooms only, but for the bulbs themselves. And whereas years ago stocks were purchased from the Dutch growers, several tons of Lincolnshire bulbs were in January shipped to Holland, Messrs. White being the consignors. With regard to open air bloom it is almost certain to be late this season owing to the sodden and cold condition of the land. Mr. White's firm make a point of gathering the bloom in the half-opened stage so as to get it in as clean as possible. The bloom is then placed in a moderately heated house to finish development, and when fully open the flowers are hardened off for a few hours in a cool shed, being put in wooden gratings fitted over little zinc-lined tubs. After this the gratings or trays with their burden of flowers are taken to the bunching shed, where the bloom is tenderly tied by some twenty to thirty women and girls.

The bundles are then taken in hand by the packers, the method of packing being a particularly careful one. In the nursery that I am describing all the boxes used for this purpose are made on the premises, some 20,000 being kept in stock, and each box is capable of holding anything from 300 to 1,000 blooms. The packer lines the box with blue paper, on which she lays the flowers with their face upwards. When the first row is finished a stick of the width of the box is pressed down close under the chin of the flowers, and their wet stalks covered with paper so as to prevent any damage being done to the bloom of the next row.

Of the wholesale prices, I was requested by all growers with whom I came in touch not to mention the actual figures, although I was informed of them for my private guidance. Owing to the unfavourable weather, both last year and this, prices are and will rule fairly high. A small grower told me that from one week's cutting of his house of *Narcissus ornatus* he had made nearly £20. Most of the bloom is disposed of through commission agents, and



EARLY NARCISSI GROWN FOR MARKET IN LINCOLNSHIRE.



in fine hot weather the grower often loses heavily by reason of the market being overfed.

#### MR. ARTHUR STILES' GROUNDS.

Almost adjoining the grounds of Messrs. White is the bulb nursery of Dr. Arthur Stiles. Dr. Stiles took up the growing of bulbs as a hobby some twelve years back, being content at first with one little rood of land. About four years ago, however, he threw up a lucrative practice in order to give his whole time to bulb-growing as a trade; in his nursery he now cultivates, both under glass and in the open, some twenty varieties of Narcissus, and having always had his heart in the work Dr. Stiles knows perhaps as much of bulbs as does Dean Hole of Roses. While chatting with me about his work, Mr. Stiles—as he now prefers to be called—said that in the first week of February he had cut 75,000 Narcissus ornatus, all grown under glass, and that he and the other growers would continue to cut forced bloom until the Scilly flowers began to find their way to market in large quantities. The following are some of the chief varieties grown by Mr. Stiles out of doors, and flowering in the order given: Double Daffodils, coming early in March, followed by Golden Spur, princeps Sir Watkin, Horsfield, Empress, Emperor, Double Orange, Phoenix, Ornatus, Pheasant Eye, and double white Narcissus, which last is sometimes sold as a Gardenia. The season extends from the early part of January, when the forced double Daffodils are ready, to the middle of June, finishing with the double white Narcissus. Those bulbs which are forced generally take about four years to recover.

During Passion Week the station at Spalding is crowded with thousands of boxes of bloom bearing labels to all parts of the country, and special trains of eight to ten vans are run. Last season more than 500 tons of Narcissus bloom were sent away, and a special weighing apparatus was put down by the railway authorities so as to expedite the handling of the traffic as much as possible.

#### WOMEN WORKERS.

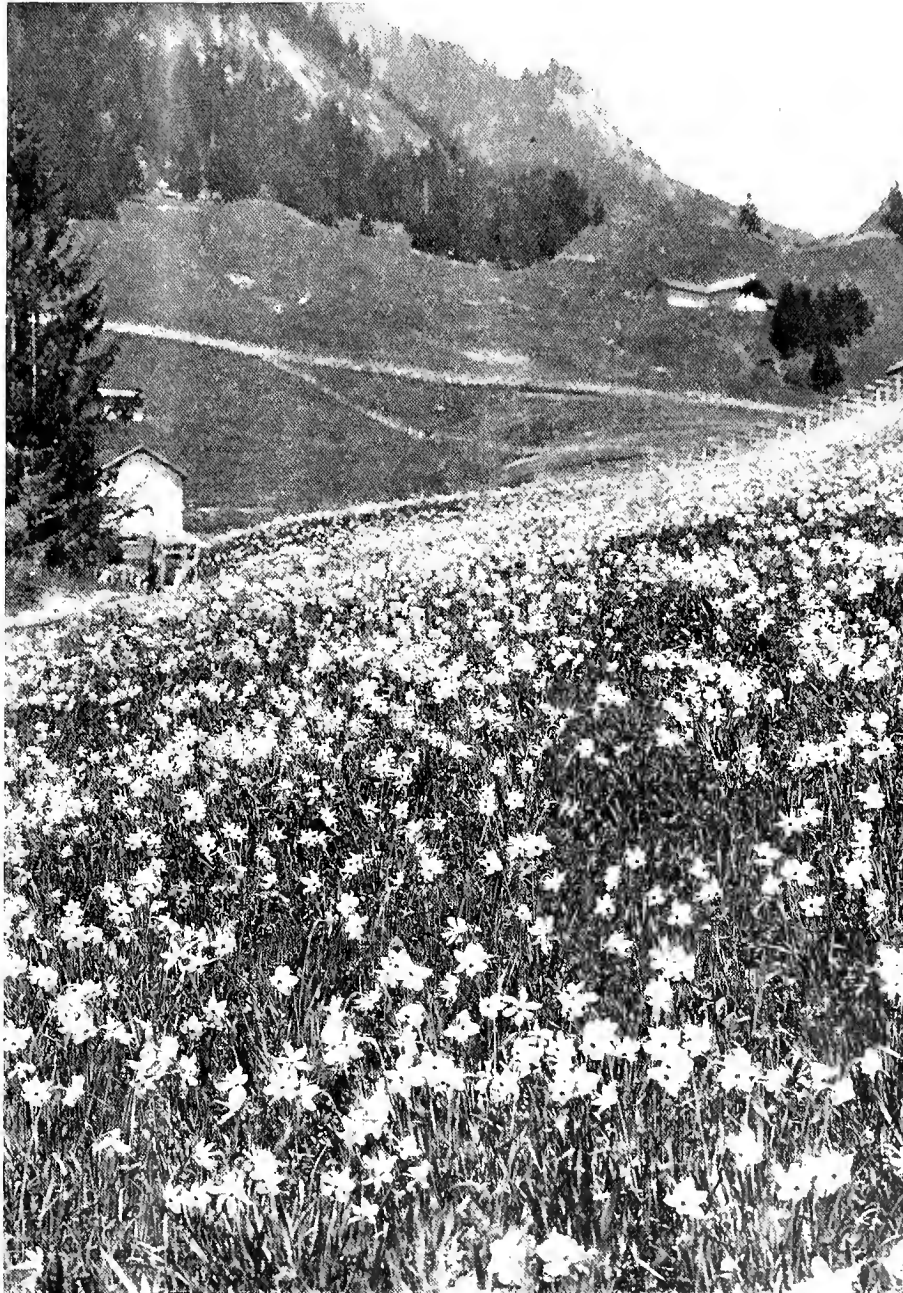
As in the Potato industry, which is now the most important in South Lincolnshire, women

workers are largely employed on the bulb farms. The women, however, are not so well paid as the "tater-pickers," as for gathering, tying, or packing the bloom they receive but from 1s. 6d. to 2s. a day. It must be remembered that the work is far lighter in every way, and that part of it is done under cover. A good woman worker will pick perhaps 10,000 flowers in a day, or if she is engaged in bunching will tie about the same quantity. To work the land

#### PIONEER OF SOUTH LINCOLNSHIRE BULB-GROWING.

was a Mr. Dickenson of Whaplode, who commenced operations some sixty years ago. The business is now carried on by his son, who is a very well-known grower and buyer too, and, like all prosperous men, he complained to me of the income-tax, but he did it with a sly twinkle in his eye. Of Aconites Mr. Dickenson says that they will not bear overmuch cultivation, and that therefore

he buys more than he grows; in fact, he has just given an order for 200,000. The Aconite really grows best in plantations and under trees generally. You will often find beautiful masses of it mixed with Snowdrops around old manor houses, and I know one lady, Mrs. Crawley of Whaplode Manor, Holbeach, who adds considerably to her "pin money" by disposing of the seeds and the tuberous roots. Strictly speaking the Aconite is not an Aconite at all, it being the botanical *Eranthis hyemalis*. The Aconite proper is, of course, the brilliant blue Monkshood (*Aconitum Napellus*), which is used by the doctors for heart trouble; and many a farm animal has been poisoned by eating the foliage. The Winter Aconite—to call it by its popular name—blooms as early as the middle of January, and lasts until the end of February to the beginning of March. The Buttercup-like flower is most happily set in a whorl of dark green leaves, flower and foliage being on the same sturdy stalk. The neatness of the growth makes it sit wonderfully well as a buttonhole. And it has often occurred to me that, were it put on the London streets, it would find a ready sale, for its general effect is quiet and gentlemanly. But the growers have been telling me that the flowers will not last. As to this I have worn the same flower for two days in succession, and have had a little vase



THE POET'S NARCISSUS IN THE ALPS.

(From a photograph by Major McKenzie, and kindly sent by M. Correvon, Floraire, Geneva.)

with the spade is, of course, impossible when so many acres are under cultivation, the plough being used as for ordinary field work. The effect of the industry upon Little London has been to raise it from a poverty-stricken village to a comparatively flourishing hamlet, as most of the inhabitants, men, women, and children, are employed in the nurseries in one capacity or another. The

of Aconites on my study table for a week, and as I write I notice that they are but now beginning to fade. Will my friends the enterprising growers please note?

The Winter Aconite is one of the most charming of early flowers, and is very pretty at the foot of trees or in a bed filled with Scarlet Dogwood (*Cornus sibirica*).

TOYE VISE.

## THE LAWN.

**A**MONG the many features of British gardens it is not too much to say that the lawn occupies a foremost place. The English garden-loving public have possessed lawns of surpassing beauty and extent for so long a time that in a measure their value as aids to the furnishing and beautifying of our private and public gardens is looked upon as a matter of course, and discounted by this familiarity; yet if the charm and interest of the lawns were withdrawn our pleasure grounds and gardens would be left poor indeed.

For many features of our gardens we are indebted to the wealthy and generous patrons of horticulture in this country, but for the lawns we are not so much indebted to these agencies as we are to the free gift by Nature of a climate and soil so eminently suited to the growth of lawn grasses. In the past I have often had the privilege of coming into contact with eminent horticulturists from many parts of the world visiting England for the first time, and it is not too much to say that what they all with one accord admire most in English gardens are our lawns. It is altogether a new revelation to them, and in their estimation is one of those beautiful aspects of gardening which no other country in the world possesses in the same degree. So much do owners of gardens abroad wish to have such lawns as we enjoy that no labour or expense is spared. This is only possible by cultivating and sowing the land with new seed every year, the same as we do in this country for the purpose of growing corn, the land being broken up every autumn and resown with new seed at great cost, and watered and cultivated during summer with as much diligence and care as we bestow on our most cherished crops.

### FORMATION OF A LAWN.

If the land to be formed into a lawn is part of a field of good turf, and the natural contour of the land is pleasant to look upon and devoid of angular and ugly formations, the expense

and labour in this instance will not be great, and will consist chiefly in levelling any small irregularities there may be, and in giving a good dressing of rich soil to fill the many small depressions or holes, and to nourish the grass, causing it to assume that deep green shade of colour we all so much admire. The surface of the land should be rough harrowed in spring, and a good dressing of soil (with  $\frac{1}{2}$  cwt. of bone-dust to the cart-load added) applied, and well rolled in with a heavy roller after showers of rain. March is a good time to carry out this work. When mowing time comes round the first crop must be cut off with the scythe. The lawn mower may be used afterwards, as the surface soil will then have disappeared among the roots of the grass, and the mower, if used every ten days (or oftener if the weather is damp) during summer, will in a short time transform an ordinary field into a beautiful lawn. In the case of extensive lawns such as we have been considering owners of gardens engage experienced men to carry out the work; but there are many others having smaller gardens and more limited means who would be delighted to superintend and direct such work with the assistance of less skilled workmen. To such a few suggestions as to how to proceed to lay down a new lawn may be acceptable.

It is useless to hope to secure a beautiful turf of the best grasses without the land in the first place is efficiently drained, either naturally or artificially. If the soil is shallow, and resting on gravel or chalk, no artificial drainage is necessary, but if on deep soil of a marly or clayey nature then the land must be

### WELL DRAINED.

In land of this description the pipes must not be laid too deeply; in stiff clay 18 inches will be deep enough; and in soil not so retentive 2 feet will be better. The drains must have a moderate fall (towards an outlet) of at least 1 foot in 100 yards; more would be better. The distance between the 3-inch drains in heavy clay should not be more than 15 feet, and in soil not so heavy 20 feet would be a suitable

distance. Supposing the land about to be converted into a lawn to be already under good sound turf, the first question to consider is whether the surface is of an uniform level or possessing pleasing undulations. Should this be so, then the instructions already given for bringing the turf into proper condition would apply. On the other hand, if consisting of angular and objectionable elevations and depressions, the turf must be taken off and put on one side ready for relaying, the land ploughed or dug deeply, the objectionable irregularities reduced by the harrow fork and rake, and the turf relaid. If the grass is rough and coarse then it will be better to dig it deeply under and sow the land with the best mixture of lawn grass seed suitable to the nature of the soil, and which may be obtained from any of our seed merchants.

### CUTTING AND RELAYING THE TURF.

This work may be carried out any time between October and the end of April (and, indeed, by the experienced man during any month of the year in case of necessity). The tools it is necessary to possess to carry out this work are an edging knife, turf knife (or plough, as it is sometimes called), and a garden-line. The turves should be cut into sizes 2 feet long by 1 foot wide and 3 inches deep. They should be rolled up and put by in convenient heaps ready for relaying. When they are cut into this uniform size relaying is greatly facilitated and the work carried out much more satisfactorily than if the turves are cut in a haphazard way. Dry days in winter and showery days in spring should be selected to carry out the work. Before the turf is laid the surface of the soil should be made smooth and even with the rake, and the turves well pressed down with the feet as soon as laid. Towards the end of April it will be found that the sun has somewhat contracted and warped the turves, thus leaving spaces between them. A dressing of soil should then be given in order to fill up these openings, and the dressing should be extended to the whole of the turf, and a thin sowing of lawn seeds made, at the same time raking it well in and rolling several times over. This light dressing of soil will prevent the turves drying so quickly, and help them also to re-establish their growth much quicker than would be the case without it. As soon as the growth of the grass is active the soil dressing will disappear.

### MAKING A LAWN FROM SEED.

There are advantages and disadvantages associated with each system. Laying it down with turf enables the lawn to be used either for playing or walking upon much sooner than when seed is sown. On the other hand, it seldom happens that the old turf is composed of such suitable varieties of grasses as the lawn laid down with seeds would be, as these are selected with great care, in that proportions of sorts and colours which long experience has taught to be the best. The preparation of the ground will be the same in the case of seeds as that recommended for laying down the turves, excepting that if the land is at all poor a dressing of at least



DWARF LAVENDER AT FOOT OF DRY WALL.

15 tons of good farmyard manure to the acre should be applied. The best time to sow seed in the South of England is from the middle of March to the end of April. In the North and Northern Midlands three weeks or a month later would be better. Seeds may also be sown in the autumn from the middle of August to the middle of September. The only disadvantage of sowing in autumn is the danger of injury to the young grass by severe frost during winter.

OWEN THOMAS.

(To be continued.)

## WALL GARDENING.

### SOME SUGGESTIONS.

**W**E feel no excuse is necessary for giving prominence to the subject of wall gardening. During recent years outdoor gardening has undergone a vast and delightful change.

We see positions for creating pictures of rare charm and beauty hitherto unheeded, and our eyes are opened to ways of adding enjoyment to country life pursuits by simple forms of English gardening. Wall gardening is one of these, and we draw attention to it now, as spring is one of the best times to sow seeds, to bring some of the charms of many an old castle keep to the walls of the homestead. Ways of gardening scarcely thought of a few years ago are now being taken up with great eagerness, and the good gardener seeks to make gardens of living beauty of the water surface and the wall. As a well-known writer upon wall gardening recently said: "The better knowledge of many of the beautiful flowers of the Alps has shown that, though some are plants for our garden borders, and a still greater number will suit our rock gardens, there are many, and among them some of the most beautiful, that are plants whose right home in England is an actual wall."

We have not, except in a few favoured gardens, such natural walls as many alpinists have the benefit of at home, but most gardens have some kind of walls, while many have retaining walls of unmortared stone—what are known as dry walls. Now we have come to see how valuable these places are, for there are a good number of the mountain plants that can only be grown successfully in an actual wall, where their roots ramble back into the cool stony depths, and the heads are in full sunlight. In many gardens, too, there are steep turfy slopes, which can be made into rough walls in which numbers of beautiful mountain flowers will spread freely and flower abundantly in their appointed seasons.

Wall gardening is a fascinating study, full of possibilities, and as yet little understood. But the mossy flower-stained walls of many an ancient keep, or some low cottage wall, should surely teach us that this form of gardening might enable one to grow many a rock flower that now languishes for want of just those conditions that the wall affords. Those who have thick mossy old walls possess a paradise for many a rock flower, and it is only necessary to go over the walls, pick out the weeds and rubbish, and retain as much of the moss as possible to provide the right conditions for the plants. Never try and make a rock garden of this wall surface, but wisely choose first those things that we know will do well, and then as knowledge increases add others, until an extensive collection has been got together. Masses of Wallflower, Arabis, purple Aubrietia, Valerian, the noble leaved Mulleins, Sedums,

Saxifrages, and Ivy-leaved Toadflax are the plants to begin with, and so sow the seed or put in the little seedlings that a rich splash of colour is the result, not a dotting of a hundred things for the sake of a mere collection.

It is a wonder that this beautiful way of growing many an alpine flower has not long ago gained the affections of the earnest gardener. There are object-lessons in the wild wall growths, the thick clustering of Ferns, and the colonies of Snapdragon and Foxglove. These and many other flowers as beautiful grow contentedly with no other support than decaying mortar, and surely make a glorious return for their small wants. As the writer referred to points out: "A wall of living beauty is possible before the mixed border has become established, or in gardens where no rock garden is possible, many beautiful alpinists that love to send their roots into the crevices are quite as happy here—even more so—than elsewhere."

Sometimes there are in the garden rough stone steps leading perhaps to an outhouse or loft. In the crevices of the stones it is possible to establish many a flower, and we well remember in a Surrey garden seeing the crevices of steps of this kind full of *Erinus alpinus*. A few seeds of this pretty flower were scattered in the joints, and mossy tufts grew and thrived, taking to the somewhat unpromising place with a cheerful vigour that was more than the expected reward of what was only ventured upon as a piece of experimental planting. So that one may confidently advise anyone who has a bit of moss-grown wall or steep stony bank to sow *Erinus alpinus*, and leave the accommodating little alpine to do the rest.

A host of plants may be raised from seed and the seedlings pricked into the wall, or the seed can be sown in the chinks, but when sowing such things as Wallflowers and Snapdragons be careful that the seed is derived from a good source. We made a liberal sowing of Snapdragons in an old wall, but the results were not gratifying, the flower colouring being poor and the growth stiff and dwarf. None of the squat and pigmy forms of naturally beautiful flowers should find a place in the wall, or, indeed, in any part of the garden. Many plants not considered wall plants are happy in chinks into which they can thrust their roots.

Situation has much to do with the success of wall gardening. Shade-loving flowers are unhappy in full sun, and the wall gardener must be ever mindful of the intense heat plants



CERASTIUM IN A DRY WALL.

are exposed to on a surface of brick or stone. We once noticed in a garden *Arenaria balearica* drying up on a wall in full sun, but spreading freely in a moist, half-shady spot. It is by studying the nature of the plants that success is attained, and only in this way does gardening become a pleasurable and instructive pastime. The glory of many an English village and homestead is in the thick moss-stained walls where a hundred lovely flowers have sent their roots into the chinks and painted them with tender colouring, drifts of yellow from Toadflax, and many other wildings flinging their stems from their rocky hold.

## THE FLOWER GARDEN.

### THE IMPORTANCE OF THINNING ANNUALS.

**I**T is an excellent practice to sow many of the hardy annuals, *e.g.*, Shirley and other Poppies, Cornflowers, the various Californian species, &c., as well as biennials, in the early autumn. Those who have not tried the plan can scarcely realise the gain, in normal seasons, to the flower garden in spring. This last season, however, all our best-laid calculations have "gone a-gley," for in most parts of the country seedlings have been either washed bodily away or have damped off the surface of the sodden earth. If any of them should have been strong enough to outlive such drastic treatment—and they have in some favoured gardens—

they may still be transplanted from the seed-bed to their flowering quarters, where, if allowed plenty of room to develop, they will attain noble proportions and go on blooming for a long time. But whether or no this be the case, there is always spring sowing to be done as well, and the time for it is at hand.

Annuals are amongst the most important additions to our summer and autumn flowers, not only on account of their intrinsic beauty, but on the score of their usefulness in filling up, at short notice, the gaps which will occur even in the best

regulated gardens. In working up a good stock of them, however, whether hardy or half-hardy, everything depends upon the treatment they receive, for even the finest strains of seed may easily be ruined by want of judgment or neglect. To begin with, it is worse than waste, for it is disastrous as well, to sow at the rate of a hundred seeds for every twenty-five seedlings required. Good seed may be reckoned upon to germinate freely, and those that come over and above the number wanted will choke the life out of the remainder, and we may be left in the long run

without a single seedling worth the saving. To take a familiar example, a single well-grown plant of *Nemophila* set by itself will carpet 2 feet square or so of bare earth, and is a beautiful sight, as it seems to reflect the blue of the April sky. But sow the seeds in thick-set patches in the open and leave them without thinning in the usual way, or allow the seedlings to spindle up in pots to be transferred just as they are later on to the border, and *Nemophila* presents a miserable spectacle, not to be recognised as the same plant. Sweet Peas, the most popular, perhaps, of all annuals, are more

sinned against in the matter of too liberal sowing, and that out of sheer admiration, than almost any other class; but the same remark applies to almost every kind of annual plant, whether useful or ornamental. Experienced men know this well and act upon it, thinning out their lines of vegetable crops, no less than with their seedling flowers, to an extent which makes the tyro predict but a scanty harvest. All the same, they know perfectly well what they are about, and the result proves it. All gardeners, however, and especially amateurs, are not as yet experienced, and for such this fact cannot be too strongly insisted upon, that success or failure with annuals, and, indeed, with seedlings of all kinds, depends mainly on sowing as thinly as possible and taking care to prick out the young plants in good soil before any overcrowding can take place.

Sowing in the open ground in spring is rather hazardous work in the case of choice annuals, and should never be attempted with valuable seed. It is better, generally, to sow in pots or pans, pricking out the seedlings into boxes as soon as they are large enough to handle. For many of the larger-growing annuals, like the fine *Arctotis grandis*—and even for the yellow Sultan and its new white counterpart, which are somewhat difficult—it is best to put each seedling separately into a 2½-inch pot, giving another shift or two as required before planting out. This may seem to entail a good deal of extra trouble, but it will be amply repaid at flowering time. The nurserymen who sell penny packets of counted seeds have taught one very useful lesson to their patrons, that the growing of strong, healthy plants does not depend upon the quantity of seed that is sown. And a most important lesson it is, to fix in the mind once for all, hence this timely reminder now when seed sowing is the order of the day.

K. L. D.

## GARDEN VASES AT INWOOD.

**I**NWOOD HOUSE, Somerset, the seat of Mr. Merthyr Guest, is one of the most interesting in England. It has been the delight of Mr. Guest to adorn his pleasure grounds with fine leaden and stone figures—the works of old masters in that neglected art. We have many a time spoken of the extreme beauty of the colour of old lead, and its great suitability for garden work. Far better is its hue than the garish blaze of marble, or even than the fine character of bronze. In old English gardens leaden figures were not uncommon, and in many of them, as at Melbourne in Derbyshire, they still remain. Mr. Guest has exercised eclectic taste, and has brought to his Somersetshire home examples of



THE FRUIT URN AT INWOOD.

English skill both in lead and iron, and also of the work of French and Italian hands. The result is admirable, and in few places can there be so good a collection. The many ancient leaden figures, vases, water-tanks, and cisterns are well placed for effect, sometimes standing apart, and in other cases framed, as it were, in niches in the hedges of Hornbeam or Yew. These charming examples of garden sculpture thus give the air of an old-world pleasaunce to this garden, though, in fact, it is comparatively modern, nearly the whole having been laid out within the last twenty years.

Among the many sculptured adornments of the place is a fine bronze reproduction of the famous Laocoon, attributed to Agesander, Polydorus, and Athenodorus, the Rhodians. The unhappy son of Priam and Hecuba, gripped in the horrid coils of the vengeful serpents, as, with his two boys, he offered sacrifice to Poseidon on behalf of the Trojans, does sometimes appear in gardens, without, however, lending the charm of repose that we love in our pleasaunces. Evelyn found a Laocoon at St. Cloud, amid the multitude of statues there, and describes in glowing terms the Laocoon fountain, which threw the water nearly 40 feet high, and was a "surprising object." The statuary group in question marks the strong recoil from the effeminate style of the Praxitelean School, and possesses anatomic exaggeration and unsculpturesque energy of action that caused Ruskin to say no group had ever exercised so pernicious an influence on art. There is a lesson here. Let us admire the Laocoon at Inwood House, which, indeed, is not used there as a garden feature, but let us recognise that a figure in repose is more suitable for our garden adornment—a gladiator resting after his toil or a Narcissus pensive by his pool. We reproduce the beautiful flower and fruit vases at Inwood, and also one made by Mr. Pulham of Broxbourne.

### RECENT PLANT PORTRAITS.

THE March number of the *Botanical Magazine* contains portraits of

*Oldenburghia Arbuscula*.—Native of South Africa, also known under the synonym of *O. grandis*. This is one of three known species of the genus, and is more of a botanical curiosity than anything else, its flowers closely resembling those of the common Artichoke, though of less actual beauty of colouring. They are borne on the top of a low-growing shrub, with thick, deeply ribbed foliage. This plant was raised from seed brought from the Cape in 1887, and has taken sixteen years to reach a height of about 3 feet.

*Tanakaia radicans*.—Native of Japan. This plant is merely a botanical curiosity, and of no beauty whatever.

*Kirengeshoma palmata*.—Native of Japan. This is a handsome, profuse blooming, and most interesting plant, with good-sized, light yellow flowers. This plant was described and figured in THE GARDEN for October 10 of last year (pages 245-6).

*Solanum glaucophyllum*.—Native of Brazil and Uruguay. This is by no means a new plant,

having been cultivated in Paris three-quarters of a century ago. It is, however, a plant of considerable interest and beauty, producing large bunches of handsome cup-shaped rosy purple flowers, followed by purple egg-shaped fruit. It has been in cultivation at Kew many years, and flowers and fruits annually in the Temperate house.

*Meglaclinium platyrrachis*.—Native of British Central Africa. This is an Orchid of considerable botanic curiosity, but no beauty.

The second number of the *Revue Horticole* for February contains an excellent portrait of the

beautiful and well-known *Tropaeolum speciosum*, showing both the brilliant scarlet flowers and the flowing triplets of deep blue fruit. The first number of the same periodical for March figures the now well-known and brilliant *Crassulad* (*Kalanchoe Kirkii*), but hardly does this fine plant justice either in size of flower or brightness of colouring. It first bloomed in the Royal Gardens, Kew.

The *Revue de l'Horticulture Belge* contains a portrait of a very pretty terrestrial Orchid bearing the very long name of *Anæctochilus thomsonianus* var. *Gentilii*. W. E. GUMBLETON.



A FLOWER VASE AT INWOOD.

## BALCONY GARDENING FOR THE LONDONER.

"Visions of blue Violet plots,  
White Daisies and Forget-me-nots."

SOME of us have a balcony as well as a window-box. Here is a field indeed; we have more space, more opportunity for display. Rescued from the hands of the florist, balcony gardening becomes one of the most interesting of occupations. Here we may aspire to creepers and climbers, in addition to shrubs and flowers; in a good aspect (if we look after them ourselves) even to Roses. Imagine it in London!

"Rose trees either side the doorway,  
Growing lithe and growing tall,  
Each one set, a summer warder  
For the keeping of the hall."

Climbers in pots that make quick summer growth are easiest to manage. These we can get fresh every season, and they greatly brighten up the old friends that have lived with us from year to year through the adversities of frost and fog. Major *Convolvulus* and the perennial *Morning Glories* do well; also *Canariensis*, but all these must have sun.

For a town wall plant nothing can surpass the winter *Jasmine*, whose yellow blossoms cheer the dulllest months, and in summer we welcome its long, green trails, which we must not forget to cut back every autumn, or it will get too straggly. It is always the year's young shoots that are wanted for beauty. *Forsythia*, with its golden flowers of February and March, delights us sometimes on the fronts of London houses in very early spring, but the foliage is not so decorative afterwards, and for the balcony we must have summer beauty. The *Virginia Creeper* that we have brought from the generous West (along with other pretty things) is now so familiar that we forget it is really a newcomer. It was in 1841, at the back of a house at Rutland Gate, that the *Virginia Creeper* made its first appearance in London. Since then how much it has done to beautify our towns, both the common kind and the small-leaved *Ampelopsis Veitchii*, whose habit of self-clinging renders it so invaluable! Some critics think we use this creeper too freely, but I do not agree with them. Either on grey stone or brick or trellis-work or rails its graceful festoons of green or red or crimson—as the sun has dyed them—give summer brightness, and are a never-failing autumn joy. The *Grape Vine* and *Fig tree* both do well in London, also the deciduous *Magnolia*. Of the *Ivy* there is no occasion to speak, except to remind that there are more kinds than one. Good balcony shrubs for backgrounds are also easily found, and in many contrasting tints of green and gold. With respect to pot plants, Mrs. Earle gives a suggestion that is worth following up:—"One day outside a dining-room window of a London house I noticed some large, heavy, oblong Japanese flower-pots planted with single plants. They looked very well, as one was able to see the growth of the plants. The pots were glazed and much thicker than the ordinary flower-pot. This lessens evaporation, and their weight prevents them from being blown over." Ordinary flower-pots are not suitable in our climate for outer windows and balconies.

I am convinced that for furnishing the balcony there is a great future for strong, well-made, handsome pots. It is wonderful what can be grown in them. No one understands this better than the flower-lover who has ever lived in any of the West Indian

Islands, where there is no soil, and everything has to be grown in pots and tubs. Tubs are charming—so cheap, so easy to manage, and so decorative when tastefully painted. Plants always take kindly to tubs, and both tubs and pots can be arranged or moved about with ease, a great convenience when ladies undertake the work.

But tubs and pots are not the only receptacles that are useful for balconies, verandahs, leads, and windows or doorways. Italian oil jars answer very well, either whole or sawn in half to make two. Seakale pots serve the same purpose. For painting them in colour



THE "PARIS" VASE.

(Designed by Messrs. Pulham and Son.)

nothing is better than a low-toned green, which harmonises with all else. There is a certain dull red that pleases some tastes, but red is a colour that ties.

The quality of the material of the receptacles must be considered carefully, as it has a great deal to do with the amount of water the plants will require. Ordinary flower-pot ware is very porous, and plants grown in large flower-pots require more frequent watering than when grown in anything else. The evaporation through plain wood is not nearly so great as through unglazed earthenware, and when the wood is painted it is still less.

Glazing an ordinary flower-pot makes it more protective. Old petroleum barrels (when the oil has been turned out) and butter-tubs are excellent plant-holders, but of course must have ample provision made for drainage and several good-sized holes must be pierced at the bottom.

If the tub or pot has not much depth of room underneath it should be set on bricks or raised in some other way. This assists drainage and keeps the holes from being blocked by worms or otherwise. Repotting is very seldom required if in the first instance good compost is given. The best way of feeding our tub plants and shrubs is very well explained in a paper on "Tub Gardening," by Mr. Alger Petts, in *THE GARDEN* of September 21, 1891. It is well worth study by those who mean to take seriously to tub gardening, but most likely the tub gardeners of the London balcony do not expect their plants to live long. They would do so, however, if properly looked after and given a fair chance. One great advantage about flowering pot and tub plants is that they bear more blossoms grown in this way than if they were in the open border; the strength of them goes to blossom instead of root, as everybody knows.

London in June! how beautiful it is, especially at the West End, the best End, and who can doubt it owes much of its beauty to plants and flowers? There they are, in shops and dairies, even among the delicate confections of the modiste, pots of green Ferns, even fragrant blossoms. On a summer's day in Bond Street I have sometimes stopped involuntarily to feast my eyes on the artistic arrangement of a shop front, where blocks of ice and silvery white bait, the scarlet lobster and the subtle pinks of salmon mingle with trails of Grass and sea-weedy green. This is refreshing, but we should like more of it. Why should not our streets be even gayer than they are now and sweeter? Over the shop fronts and on leads, as well as in the window-box or in the balcony, we would see something fresh and growing.

Cut flowers are all very well, but they make only for beauty. The growing plant is a health-helper as well as a joy to the eye, for the carbonic fumes that kill us are positively good for plants; they live on and enjoy them. Trees and all green things are good, but trees, unless a street is very wide indeed, take up too much room, robbing us of light and preventing the air from circulating. Balcony gardening need never do this, we can keep to low-growing things and creepers. Many a town house has balconies large enough to lounge in. On a July evening, under the delicate thin curve of a new moon or in starlight, how sweet the summer dusk, even in London! There are fewer fires now and less smoke, and flowers are just as fragrant here as in the country. Where so welcome as in cities are "pointed blossoms rising delicate with the perfume strong we love." I was once a frequent visitor at a London house which was always kept full of growing plants, and could never enjoy one of them. Why? Because I knew each one was dying every moment. They were treated exactly like furniture. A dark corner would be "lighted up" by the splendour of a scarlet *Geranium* in full bloom (it did not remain scarlet long), a *Daphne* showed its pink stars on a davenport close to the fireplace, and a long way off the window. No one ever picked off a dead leaf or gave the plants so much as a cupful of cold water. Every few days the florist's man came round, took away the invalids (for such they had become), and arranged a fresh lot. Poor

plants! they had my sympathy. I do not think this treatment of flowers shows the least real love for them. Better were it to grow the humblest blooms out in the air upon the open ba cony.

F. A. B.

## THE FRUIT GARDEN.

### PEAR BEURRE RANCE.

**B**EURRE RANCE is one of the oldest, best-known, and largest of winter Pears. I have had fruits weighing nearly 1lb. each. It requires a south or south-west wall to bring it to perfection, and is in season from February to the middle of April. When well grown and fully ripe it is one of the most luscious and refreshing Pears I know, having a flavour of its own, quite unlike any other; the only fault that can be found with it is that the flesh is of a rather rough texture, and that its fruit occasionally cracks, but this only occurs on half-starved and badly-cultivated trees. In ordering trees from a nursery, double grafted ones should be asked for.

OWEN THOMAS.

### SOME TROPICAL FRUITS.

AMONG tropical fruits that are grown in hothouses in this country the Guava is perhaps the least commonly met with. I have never seen it thriving better than in the gardens at Harewood Hall, Yorkshire, where Mr. Jenkins grows it trained upon a roof trellis in a warm house. If I remember rightly, two plants are planted out in a narrow border, and from them a great many fruits are gathered. I am sure it would interest readers of THE GARDEN if Mr. Jenkins could be prevailed upon to recount his experiences of Guava culture in your columns. The two species best worth culture under glass in this country are *Psidium Guava*, from the West Indies, and *P. cattleianum*, native of Brazil. There are two varieties of *P. Guava*, says Mr. Watson, writing in THE GARDEN some time ago—*pomiferum* and *pyriferum*. "The fruits are green, not unlike a little Apple, with an agreeable, somewhat acid flavour. The Guava is largely grown in tropical countries for its fruits, which are eaten raw or form the well-known Guava jelly." The fruits of *P. cattleianum* are of a claret colour.

Guava fruits are said to be greatly liked by the few who know of and eat them, and it seems a pity that more gardeners do not undertake their culture, and thus add welcome variety to the list of dessert fruits grown under glass, which at times is found to be rather limited. The *American Fruit Culturist* gives some interesting particulars about the Guava. From it we learn that it may be called the Apple of the tropics. From its original home in tropical America it has become dispersed over all equatorial regions. As the tops, which succumb to several degrees of frost, are promptly renewed from the roots and bear in a few months, it is often grown in a small way in sub-tropical climates. As soon as the repugnance to its penetrating and rather unpleasant odour has been overcome, it is accounted one of the most fascinating of fruits, either fresh or made into jelly, marmalade, puddings, or pies. In productiveness it exceeds almost any known fruit tree. In sub-tropical regions the regular crop ripens gradually from August to October, but there are a few scattered specimens to be found maturing at all seasons. If the whole ripened at once the branches would bend to the ground with their load, of which there is a perennial renewal and no barren

years. In the tropics it is often a pest, springing up everywhere from seeds dropped by birds, and over-running abandoned plantations till they become transformed into impenetrable jungles. In Southern Florida it is an inmate of every garden, and some of the large, white-fleshed kinds brought from the East Indies are among the most delicious and fascinating fruits in cultivation. The author mentions *Psidium lucidum*, which bears fruits of a lemon or cream colour.

Another tropical fruit now much better known in this country than it used to be, but still not generally grown, is the Japanese Date Plum (*Diospyros Kaki*). I have grown them as bush trees in pots, and have fruited them fairly well. The large orange-scarlet fruits are very handsome. The plants were placed out of doors during the summer months and in winter were kept in a house where the temperature was 55°. This fruit is grown at Kew, but there the plants are planted out in a border. Mr. Watson wrote in THE GARDEN that "it is planted out in a border of loamy soil in a position where it gets plenty of summer sunshine and air, while in winter the atmosphere is dry and the temperature never below 50°. The pruning of this plant is identical with that recommended for Peaches. In Japan the trees are never pruned with a knife, the belief being that iron causes injury to the branches. They are therefore thinned by breaking with the hand. The soil most suitable for the Persimmon is loam, and a top-dressing of manure should be given annually, say in March."

The Japanese have worked hard upon their own native *Diospyros* until it has become the most highly esteemed of all their fruits, and the original little berries have not only improved in flavour but increased in size, till some exceed 1lb. in weight. Planted everywhere, it is now a conspicuous feature of the Japanese landscape, and, apart from its value as food, travellers unanimously agree in extolling the beauty of the broad glossy leaves and the brilliant crimson and golden tints of the fruit which clings to the branches after the fruit has fallen.

Other fruits that I might mention as being well worthy of inclusion in gardens where variety of dessert is appreciated are the Loquat and Passion

Flower fruit, to say nothing of the Mango, Custard Apple, and Tree Tomato, while the Banana, of course, is now fairly widely grown. A. P. H.

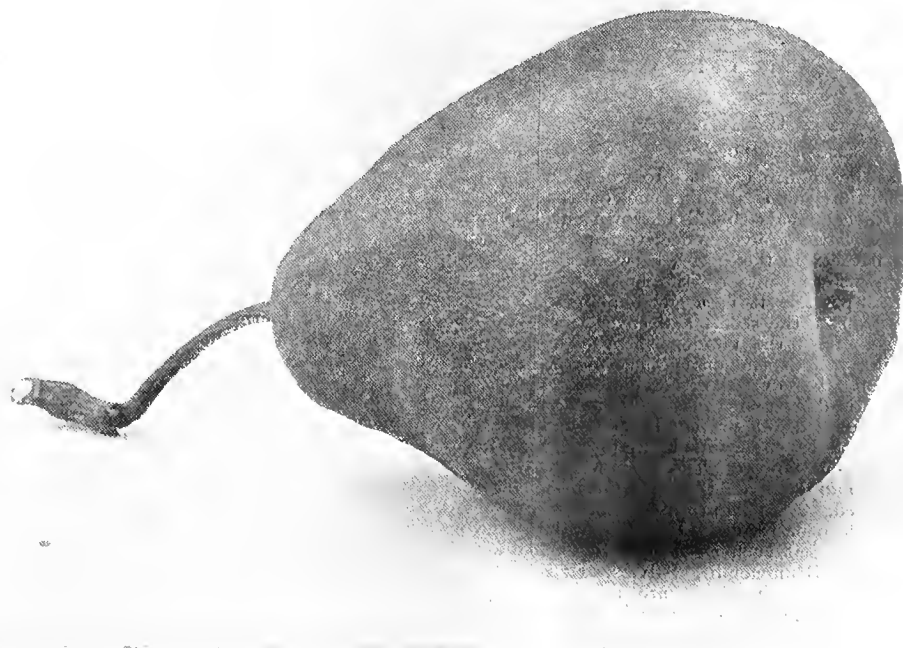
## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### PHORMIUM TENAX.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—I am sending leaves of the New Zealand Flax taken from a plant growing in a north house among Ferns with but little soil to support it, and where the thermometer often registers 6° or 8° of frost. This plant is tolerably well known as a greenhouse and conservatory subject, but is not nearly so much grown as it ought to be. When grown to a medium size its leaves begin to arch over, and when in that condition nothing makes a more graceful and distinct plant for room or hall. It may be grown well in an 8-inch pot, or to a great mass of bold long leaves in a tub 3 feet in diameter. This plant will generally be found to enjoy a greenhouse temperature, though in genial places in the South and West of England it does very well in the open air. Its best use is for the decoration of the garden in summer, a few specimens well grown and plunged in the grass or the centre of a bed give a most distinct aspect to the scene. The larger such plants are the better the effect. Smaller plants will prove equally useful and effective in vases, to which they will add a grace that vases rarely now possess. It is useful for house, conservatory, and even living rooms in winter. Wherever indoor decoration on a large scale is practised it is indispensable. Unless for vase decoration it requires to be grown into good specimens before affording much effect out of doors, but when in large tubs it is equally grand for the large conservatory and for important positions in the flower garden. The variegated form lends itself equally well to the same treatment. Its leaves are striped with rich yellow and white.



PEAR BEURRE RANCE. (Slightly reduced.)

This colouring makes it a most desirable plant either for the conservatory or the flower garden.

T. B. FIELD.

*Ashwellthorpe Hall Gardens, Norwich.*

[We are glad to be reminded by several unusually fine leaves of the usefulness of the plant for a position such as is described by Mr. Field.—ED.]

### ERICA WILMOREANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is somewhat singular that the early history of this Heath, alluded to lately in the notes from Covent Garden, should, in common with the even more popular *Erica hyemalis*, be quite unknown. This last-named is the first to open, and is brought into Covent Garden Market some time before Christmas, but towards the end of February it is to a great extent superseded by *E. wilmoreana*, which, apart from its season of blooming, differs from the other in its more robust and spreading habit of growth, as well as in the flowers themselves. In the "Kew Hand List" both the above Heaths are referred to as of garden origin. They belong to that section known as soft-wooded Heaths, which term includes those that can be propagated by means of soft growing shoots, and which may as a rule be cut back without injury after flowering. This section embraces nearly all those which are popular with the market grower, the main reason being that saleable plants can be obtained in much less time than in the case of the hard-wooded Heaths, added to which most of the latter bloom in the summer when flowers are plentiful, whereas many of the market sorts, such as *E. gracilis*, *cafra*, *hyemalis*, *wilmoreana*, *persoluta*, &c., flower during the autumn, winter, and early spring months. T.

### A WINTER-BLOOMING VIOLA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The winter-blooming variety alluded to recently by Mr. R. Dean is one evidently much grown about Feltham. Two winters ago I noticed a big breadth of several hundreds of plants in a small hardy plant nursery close to the road. The variety was named Sulphur Queen, Lemon Queen, and something else. There can be no doubt that it is the most remarkable winter-blooming *Viola* in commerce. This sulphur *Viola* is well worth taking in hand as a seed parent, with the hope of breeding from it a special race of winter-flowering varieties. When I saw the variety I was informed that it is quite constant as a winter-bloomer. K.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### SEED SOWING.

AS soon as the soil can be got into workable condition the seeds of some of the hardier annuals should be sown outside. These are very effective if sown in patches in the spaces between the regular occupants of the herbaceous borders. When possible it is a good plan to prepare the soil, sow the seeds, and cover with finely sifted soil from the potting shed. The depth of covering will depend on the size of the seed, which should be covered rather more than when the sowing is done under glass. Periodical sowings should be made of Shirley Poppies and Mignonette to produce successional supplies for border display and cut flowers. The seeds should be sown thinly, and later on thinning must be rigorously practised. Annuals are apt to become overcrowded, with poor results. It will now be necessary to sow in heat such as Asters, Stocks, *Salpiglossis*, *Phlox Drummondii*, *Salvias*, *Helichrysum*, &c. Different methods are adopted, according to the various conveniences and requirements. It is essential to provide thorough drainage, so that the soil shall not at any time become stagnant. The seed pan, pot, or box should be covered with a piece of glass, slate, or tile to

prevent excessive evaporation. As soon as the seedlings are up air should be gradually afforded to prevent damping, and after the seedlings have recovered from the check of pricking out the sturdier they are grown the better.

#### BAMBOOS.

During the early spring rats are frequently troublesome, especially so if the Bamboos are growing near a lake or stream. At this time of the year the teeth of these rodents require a deal of grinding back, and as the stems of Bamboos are very hard and of a convenient size they utilise them for this purpose. In no other way can I account for the sometimes almost wholesale destruction of Bamboo culms by rats. At a height of about 3 feet they will partially gnaw through stem after stem. In these cases, as trapping is almost impossible and poisoning is out of the question, I have found a little patience and a gun to be the surest remedy. Unless a good look out is kept these detestable creatures strip off many of the leaves to line their nests, and when growth commences will eat the tender shoots.

#### YUCCAS.

In many places more use might well be made of these noble plants. When once planted, whether as single specimens or clumps in the grass or as a bed, they are but little trouble, and besides being evergreen a group or bed with a fair number in flower forms a most interesting feature in the garden. *Yuccas* thrive in a light, fairly rich soil. A good-sized bed may be made very effective by planting *Y. gloriosa* and *Y. recurvifolia* at moderate intervals, *Y. angustifolia* in the spaces as a sort of groundwork, and an outside row of the more approachable *Y. filamentosa*. In the warmer localities *Cordylina indivisa* may be associated with the *Yuccas*. Propagation may easily be effected by lifting an old clump and dividing it. The growths should be potted singly and placed in a warm house for a few weeks, afterwards gradually hardening them off and planting in their permanent positions. The fleshy roots if cut into lengths and placed in a propagating frame will soon break and produce plants much in the same manner as the tropical *Dracenas*. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## INDOOR GARDEN.

### THE GREENHOUSE.

ERICAS and Epacris that during the winter have been flowering should be cut well back, and the plants afterwards should be placed where they can be given air in abundance and be syringed to encourage them to break freely. Genistas in the same way require to be pruned well back, and if they are syringed and given air as required they will soon begin to grow strongly.

#### AZALEAS

immediately they have done flowering should be given attention. The plants at this time exhibit symptoms of exhaustion, and require some effort to stimulate them to make growth. This is not the best time to repot them; if potted now they would fail to grow with any degree of satisfaction, and would not flower with equal success another year. In a temperature of 55° to 60°, and with syringing two or three times daily, they grow freely, and should be assisted with manure liquid in a diluted form and a light dressing with Clay's Fertilizer.

#### DAPHNE INDICA RUBRA,

so delightfully scented, is by no means an easy plant to grow. The soil in which we find it to thrive best is yellow fibrous loam, to which add a very little fibrous peat and a few finely broken up potsherds, and pot moderately firm. The use of large pots is a mistake, but they should be well drained and given a dry airy atmosphere, and if occasionally a weak dose of soot water be applied to the roots—but not of newly-potted plants—the foliage will assume a dark green colour.

#### LIBONIAS FLORIBUNDA AND PENRHOSIENSIS

are gems when well grown for flowering during the winter months. These are free-rooting plants, and

should be repotted annually in two parts fibrous loam to one of leaf-soil, with a little dried cow manure added. When repotted the plants do not always require to be given a larger pot. They will not suffer any check if with care a good deal of the old soil is shaken away from the roots, and they can then be returned to the same sized pot, or in some cases be placed in pots a size smaller. The present is a capital time to insert cuttings.

#### PELARGONIUMS.

Regulate the growth of the plants by removing a few of the shoots that are weak and useless, and stake and tie into position those that are to flower. Whilst stimulation to growth is often effected by the liberal use of sulphate of ammonia, nitrate of soda, &c., it is doubtful whether the plants when given such stimulants flower so well as those that are fed with manure liquid, guano, or Clay's Fertilizer. J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

## FRUIT GARDEN.

### BANANAS.

THESE are very useful as a change in dessert and much appreciated, especially if ripe fruit can be procured at this season of the year. *Musa Cavendishii* is the species most generally grown in England, and this is more easily managed so as to give ripe fruit at a time when other choice fruits are scarce. Some growers prefer growing them on in pots, and in giving them one or two shifts before planting out in tubs or borders. I have always obtained much better results without this extra labour. Where plants are grown in beds suckers are always plentiful, while those grown in tubs generally throw up one or two strong suckers by the time the fruit is ripe. Remove the suckers when small and plant direct into the fruiting tubs, about 2 feet square, from which fairly good results can be obtained. Allow plenty of drainage, and use good fibrous loam, a fifth part of wood ashes and rotten manure, and a good sprinkling of bone-meal. Keep a night temperature of 65°, and allow the house to run up to 90° with sun-heat, the house being frequently syringed and damped down to keep up a moist atmosphere. Be careful not to give much water to the plants until they are well established, after which they should be liberally supplied with diluted liquid manure. Plants grown in beds produce the finest fruit. It is not necessary to remove all the soil more than once in three years if the drainage is good. Remove some of the old soil, and top-dress with the above soil. Select suckers in good positions at intervals of two or three months, and repeat the top-dressing when well rooted through. In the summer months when the plants are growing fast or swelling their fruit it is almost impossible to over-feed them. No bottom-heat is required, but plenty of heat and moisture; a quick and healthy growth, and good results can thus be obtained.

#### VINE PROPAGATION.

Vine eyes started as advised in previous calendars will now be well rooted through, and should be moved into 5-inch or 6-inch pots, returning them again to bottom-heat or a shelf over the hot-water pipes. If they are required for planting out this season this must be done before the roots become matted, or they should be shifted into larger pots. Pinch out the lateral at the first leaf, and carefully water until rooted through. Give a night temperature of 65° and the usual rise from sun heat. Syringe them moderately and keep a moist atmosphere. Cut back vines. Those required for fruiting in pots next season will now need shaking out and repotting, using clean 12-inch pots. Give the vines a little bottom-heat if possible, and keep the house moderately moist and a little closer until they are well established. Use good fibrous loam, a sixth part of old lime-rubble and wood-ashes, and a sprinkling of bone-meal and soot. Give the canes plenty of light and train near the glass to encourage short-jointed growth and plump buds, keeping the laterals pinched to one leaf, as for vine eyes.

*Impney Gardens, Droitwich.*

F. JORDAN.



KITCHEN GARDEN.

THE new month, true to its bad reputation, has opened all over the north with severe frost, 16° being registered here on the morning of the first. Should this be repeated for long serious damage must accrue to fruit-buds that, owing to the mild winter, are in an advanced state of growth. It will be well to see that plenty of protecting material is kept at hand. Protection must still be afforded to roots in the ground, and at night coverings applied to Cauliflower, Lettuce, &c., wintering in cold frames. Rhubarb has made rapid growth during last month, and should now have some loose straw drawn over the plants. Peas through the ground or just planted out should be carefully protected while this cold lasts. In early mornings advantage (while the ground is hard) should be taken to prepare all plots still to be dug by wheeling on manure and removing all refuse.

SEED POTATOES.

The stock of these should now be looked over and cut ready for planting. If it is intended to plant any new varieties they ought to be procured at once, as prices are rapidly rising. The main crop should be chiefly well-tried varieties suitable to the district.

TOMATOES.

Plants raised from seeds sown early in January will now be ready for another shift. Five-inch pots will be ample. The potting material should consist of most part good loam with a sprinkling of

syringe constantly applied, and should they become infested they ought to be removed at once.

GENERAL REMARKS.

Brussels Sprouts, Cauliflowers, Onions, &c., growing under glass must be kept as cool as possible, and if the plants have made two good true leaves they should be removed to cold frames, keeping them close to the glass. During this bad weather inspect all roots, &c., in the stove house. Prepare stakes for Peas, Beans, &c.

THOMAS HAY.

*Hopetoun House Gardens, N.B.*

ORCHIDS.

CYMBIDIUM GIGANTEUM WILSONI.

MESSRS. JAMES VEITCH AND SONS, Limited, Chelsea, exhibited this Cymbidium on the 23rd ult. before the Royal Horticultural Society under the above name, and it was then given an award of merit. It was imported from Yunnan, China, and has been classed by M. Rolfe as a variety of *C. giganteum*. It, however, differs from *C. giganteum* in being of dwarfer habit and having a less vigorous raceme of flowers. The sepals and petals are green, spotted with

at the base of last season's growth. From those that were repotted last season in most cases simply remove some of the surface material to allow resurfacing with fresh compost. Good plants in small pots will be benefited by giving them more pot room for further development. The reverse should be done to those that have deteriorated; the smaller the pot a weakly plant is in the better it can be managed. The necessity of cutting away the back bulbs, or nearly severing the rhizome in the case of those that have good healthy eyes at the base, should be kept in mind. Pots should be used for their culture, giving a good drainage. I prefer one or two crocks, over which place some chopped rhizomes. It is essential to treat each plant separately as to how much drainage should be afforded. A well-rooted plant does not require as much as another with little or no root. In the latter case the pot should be nearly half filled. A good compost consists of two parts each of fibrous peat and chopped sphagnum, with one part of good Oak leaf-soil, well mixed together with some small broken crocks and coarse sand.

GENERAL REMARKS.

With lengthening days and stronger light the temperatures in the different houses may be raised a few degrees and kept in a humid growing state whenever the outside conditions are favourable. If the night temperature outside is low the houses must be drier at night. Strong sunshine is now often followed by cold winds and sharp frost at night, causing the temperature to fall very rapidly directly the sunshine is gone. The fires should be started early enough in the day to counteract this rapid fall. One very often finds a higher temperature in the morning than was the case the preceding evening. This is wrong, and very harmful to the plants. The temperature should gradually fall from 3 p.m. to 6 a.m.

Odontoglossums, Cymbidiums, and Cypripediums will now benefit by overhead syringing



CYMBIDIUM GIGANTEUM WILSONI. (Natural size.)

on bright days, yet for some time this should be done early enough in the day to allow of their becoming dry before night. Admit air freely whenever the outside temperature is favourable. It will be necessary to lower the blinds during the brightest part of the day on most of the Orchid houses. Now and in

bone-meal in it. Place the plants on a shelf near the glass, a temperature of about 60° being the most satisfactory.

FRENCH BEANS.

Those sown in January are now showing flower in abundance, and while they are still in bloom syringing must be discontinued. As soon as the fruits are set weak liquid manure should be given. Another good sowing should be made now, choosing a reliable variety. Growth will now be much more rapid, so the pots ought to be placed near the glass as soon as sown. Beans growing in Melon or Cucumber houses should be carefully watched for the appearance of red spider and the

brown, while the lip and throat are white, heavily marked with reddish brown. Perhaps upon further examination this Cymbidium may be given specific rank; at any rate, so far as growth and flowering are concerned it is quite distinct.

WORK FOR THE WEEK.

CATTLEYA LABIATA.

RENEWED activity is evident in many plants, so it will now be time to take in hand the requisite repotting, &c. It is a good plan to pick them out for repotting when new roots are being emitted

the late summer season temporary is preferable to permanent shading painted on the glass, yet, even where blinds are used, it is generally necessary to paint some glass. I find a mixture made of flour and water very good. If the glass is clean when it is applied it generally stands the season, and when no longer required it is very easily removed. *Gatton Park Gardens, Reigate.* W. P. BOUND.

SOPHRONITIS GRANDIFLORA. — There were few brighter Orchids among the fine display of these flowers in the Drill Hall recently than *S. grandiflora*; several pans of it were conspicuous in the collection from Sir Trevor Lawrence, Bart. The brilliant scarlet flowers are most invaluable now.

## BOOKS.

**Flora and Sylva.**—The March number contains clever illustrations of the new annuals *Tridax gaillardoides* and of *Magnolia parviflora*, both by Mr. Moon. There are several wood engravings, including a very beautiful one of *Nepenthes picturata* and one of "An Old Tree of the Eastern Plane," whilst the articles comprise descriptions of the Almonds, the Sassafras tree, the Wych-Hazels, and the Hepaticas. The following extracts are of great interest to garden lovers:—

## "TRIDAX GAILLARDIODES.

"There are only some seven or eight plants bearing this name, nor have they ever attracted much notice, being for the most part uninteresting members of the vast family of Composites. There are, however, two kinds which have recently found a place in gardens—one known as *Tridax bicolor rosea*, a pretty tender annual with uncommon flowers of rose and yellow; the other, *Tridax gaillardoides*, forming the subject of our coloured plate. This new plant is an introduction due to Messrs. Dammann and Co. of Naples, and is said to come from California, the other species being mostly from Mexico. Through no fault of culture these Central American plants are not always well flowered in this country, our climate rarely bringing their rich colouring to perfection. This plant, however, is said to be very free in its flowers of vividly contrasted white and gold, which are borne throughout the summer upon stems 18 inches to 2 feet high. It should be planted in light, warm soil and in an open and sunny spot, the seed being sown in gentle heat, and the young plants treated as other tender annuals. The pretty contrast in colour and their length of stem make the flowers useful for cutting.

## "PLANTING WIND-SWEPT SHORES.

"The merit of the Monterey Pine (*P. insignis*) as a shore tree is well seen at Bodorgan, in Anglesea, where many trees are in rude health within a few yards of the sea. There is nowhere a more wind-tortured shore, judging by the appearance of the few stunted native trees in the open land, but planting of an effective kind has been done almost on the seashore. At the water's edge are the Sea Buckthorn, Furze, and Barberry, which first bar the south-western gales and winds, and a few paces within these rows of Pines and Evergreen Oaks appear, and soon, with the aid of these excellent shore trees, almost any kind of evergreen planting may be carried out. The whole place is most instructive as regards planting near the sea. The contrast between the wind-swept surface of the island and the noble avenue of evergreen trees leading from the lodge to the house is very striking. Such planting, however, can only be carried out well where we plant a wood and not a mere belt, the trees in the massed wood protecting each other better than any artificial shelter that could be devised. Into such a wood the wind may tear fiercely, but is soon tamed down to something like gentleness.

## "RIVERSIDE COLOUR AT STRAFFAN.

"At Straffan, Kildare, yesterday (February 16), the spreading masses of Snowdrops under the red-twigged Lime trees on the lawn gave quite a beautiful effect. They are on the lower lawn below the flower garden, and are occasionally flooded as the Liffey overflows, but this only seems to increase their vigour. Just at this season, however, the most harmonious colour at Straffan is of the crimson Dogwood and red Osiers alongside the now full-flooded river, and extending from the island to the great bridge below. No words could give anything like an adequate idea of the soft and varied shades of colour, not alone of the planted banks themselves but of their still more soft and delicate reflections in the water below. This well-wooded river scene at Straffan shows how simply and naturally most cheerful and ever-varying winter effects of colour may be obtained, and especially, as in this case, near water. This river scenery from Straffan Bridge is luckily seen by

many, as the Kildare hounds meet or pass there often during the hunting season, and it certainly affords a lesson in planting for winter colour of an impressive kind, showing that some of the strongest and best effects obtainable in our home scenery are also easily obtainable by simple means.—F. W. BURBIDGE."

## MICHAELMAS DAISIES.

**D**URING the past few years some very pretty and distinct varieties have been added to the Aster. The only disadvantage in planting them in the garden is that some spread so rapidly that they soon overgrow surrounding plants, or when planted in a bed together the weaker-growing soon have to give way to the stronger. It is chiefly those of the *Novi Belgii* type which should be planted with caution, though some of these are among the most showy, and where space can be given few things make a better effect in a mixed border, they will grow well in any soil and under conditions not favourable to most plants. They do not root down deep into the soil, and are liable to suffer from drought, though this has not been the case this season. The wet summer has at least been favourable to them, and many of them have grown far beyond the height usually given in describing them. To keep them properly under control they should be divided and replanted annually, or at least once in two years. This applies particularly to the strong-growing sorts, or those which spread so freely by underground rhizomes. In the following list I have divided them as much as possible according to the habits of the various sections.

In some it is easy to attach them to a particular species, while others of distinctly hybrid origin it is difficult to place under any section. *A. acris* is very distinct, it forms a dense tuft of growth from the base, but does not spread; it is dwarf, and produces dense masses of pale blue flowers, with narrow, drooping petals; *A. carnea*, a small-growing variety with bluish-tinted flowers; *A. linearifolius*, similar to the type, but taller and having very narrow leaves.

*A. Amellus* is another decided species with little variation except in time of flowering and shades of colour. The best of these are *Onward*, deep purple-blue; *Framfieldi*, pale blue; *Stella*, mauve; and *Distinction*, mauve, with a decided pink shade. I may mention that there are two varieties under the last name, but it is Mr. Davis's variety that is referred to, and it is very scarce in the trade. The *Amellus* varieties rarely attain to more than from 18 inches to 2 feet high, and form dense masses of large, showy flowers.

*A. Novae Angliæ* is another distinct section with large, showy flowers. The best of these are *Mrs. J. F. Raynor*, bright rosy red, one of the most distinct of all the Asters, and should be in every collection; *Ryecroft Pink*, similar, but of a paler shade; *Pulchellus*, deep purple; and *Precocité*, blue-purple, flowers early. These grow from 3½ feet to 4½ feet high, form dense masses, but do not spread. They should be divided annually.

*A. cordifolius*.—In this section there is considerable variation. Some spread in the ground rapidly, others grow close. They are from 4 feet to 5 feet high, and have large, cordate leaves at the base, tall, slender branching flower-stems, and mostly very small flowers. The plants are light and graceful in habit, and are general favourites, particularly *Diana*, *elegans*, and *albus*, and to these may now be added *C. profusus*, a new variety with larger flowers of a soft blue-mauve.

*A. ericoides*.—With these may be included *vimineus* and its varieties, and some which are put with *diffusus*. There are also several among the new varieties which are of the same dwarf-branching habit, and should be included in the same group. Of the new varieties *Delight*, *Freedom*, *Thora*, and *Enchantress* are very attractive, being dwarf and compact, the long, branching racemes densely covered with tiny flowers. The true *A. ericoides* is of more erect growth, with

long, slender branches covered with small white flowers; *A. densiflorus* is dwarf, and with very pretty Heath-like foliage. Those more properly belonging to *A. diffusus* have a coloured disc. *A. horizontalis* forms a spreading bush about 2 feet high with dark stems and foliage, bluish pink flowers with an almost purple disc; *Coombe-fishacre* is one of the best and most distinct, grows about 4 feet, the long, spreading branches covered with soft bluish flowers of medium size. The Hon. Edith Gibbs may be included in this section. The flowers, which are of a pale mauve or French grey, are produced in great profusion on long, spreading racemes, which droop down to the ground. *Osprey* is another promising new variety of similar type, with pink flowers, which change to a darker shade. *Triumph*, a seedling from *Coombe-fishacre*, of more erect habit and larger flowers, deep pink, with a light centre, is another good addition; and *Brightness*, which comes from the same parentage, is a very pretty pink variety of erect and rather close habit; *Vimineus perfectus*, very compact, growing white, with dark disc, a very distinct and pretty variety.

*A. Novi Belgii*.—This is the most extensive group we have, and includes many widely distinct and showy varieties, varying in height from 1½ feet to 5 feet or 6 feet. All that properly belong to this section spread rapidly underground, and in some the rhizomes run out a great distance. Taking the tall-growing sorts, *Margaret Mathews* and *John Wood* are the best whites; *Robert Parker* and *Top Sawyer*, pale blue; *W. Marshall*, mauve; *Autumn Glory*, deep blue; *Calliope*, bluish pink; and *Lilacina*, lavender-blue. All the above have large flowers, and make tall, spreading bushes. From those of medium height I should select *Candida*, white; *Cottage Maid*, mauve, with a rosy tint; *Arcturus*, deep blue; *Daisy Hill*, bluish mauve; *Floribundus*, blue, with a purple shade; *Nancy*, clear blue, one of the very best; *T. S. Ware*, mauve, tinted with red; *Rosy Gray*, French grey; *Proserpine*, bluish, with a mauve tint; *Maiden's Blush*, soft bluish pink; *May Crum*, medium-sized white, starchy flowers, light, branching habit, one of the best for cutting from; this has grown taller this season; *Jessie Crum*, of same habit, with lavender-blue flowers; *D. B. Crane*, blue-mauve, with a slight rosy tint, large flowers, produced in dense corymbs; and *Evening Star*, mauve, with a distinct rosy shade, free-branching habit. From those of dwarf habit I should take *lævigatus*, dense growing, with small pink flowers; *Mrs. Peters*, white; *Esme*, white, large flowers; and *Densus*, lavender-blue. Of others which spread freely *paniculatus* may be mentioned; *p. laxus*, soft grey-mauve flowers, of medium size, on long, loose sprays, growing from 2 feet to 3 feet high; *p. W. J. Grant*, a very distinct variety, flowers flesh pink, with dark disc, produced in long, drooping sprays, height from 3 feet to 4 feet.

*Punicus* is a distinct species. The best variety is *pulcherrimus*; it has large silvery grey flowers in long pyramidal spikes 4 feet to 5 feet high; *grandis*, a new variety of similar habit, with pure white ray florets and yellow disc; *turbinellus*, pale blue-mauve, flowers on long, slender stems, is a very distinct species, growing about 3 feet high; and *albus*, the white variety, differs only in the colour of its flowers.

*A. Tradescanti* is a late-flowering species, small flowers, white, with yellow disc, tall, branching habit, growing to 6 feet high.

*A. trinervis*, another distinct species, with terminal branching corymbs of pale mauve flowers, 2½ feet to 3 feet high.

*A. macrophyllus*, large basal leaves, erect, branching flower-stems, small mauve flowers, medium height.

*A. corymbosus* and *A. stellatus*, dwarf habit, with spreading corymbs of starry white flowers.

Many more desirable species and varieties might be added, but I am afraid I have already occupied too much space. The collections shown at the Crystal Palace on October 6 and 7, and those at the Drill Hall on October 13, gave a good idea of the beauty and variety to be found in these useful autumn-flowering hardy plants. A. HEMSLEY.

ST. LOUIS EXHIBITION.

BRITISH ROYAL PAVILION AND GARDEN.

**N**EXT May at St. Louis will be opened the "World's Exposition," which will doubtless prove to be the largest exhibition that has yet been seen, eclipsing, as it does, in magnitude and beauty of the buildings and the extent of the grounds the wonderful exhibition at Chicago in 1893, and those held at intervals in Paris. The exhibition is well advanced towards completion, and, judging from illustrated accounts, it will be all that the Americans say about it. Besides the great buildings set apart for collections of international exhibits, it is customary in American exhibitions to erect isolated buildings as special pavilions from the various States, and each foreign country builds a pavilion characteristic of its native architecture, and surrounded by a garden also characteristic of the style peculiar to it.

There will be at St. Louis pavilions erected by Great Britain, France, Germany, Austria, Italy, and other European countries, China, Japan, and other Eastern countries, as well as from the South American Republics. Great Britain will be well represented in its section, and the Royal Commission appointed last year, with the Prince of Wales as its head to represent this country, comprises a representative body of our leading men.

The Royal Commission, in its selection of a characteristic existing building in England for its Royal Pavilion, made choice of an interesting type. It was felt that the Banqueting Hall or Orangery of the Royal Palace of Kensington would be very representative of English domestic building at one of its happiest periods, and would be a tribute to the memory of a great architect, Sir Christopher Wren, to whom, after Inigo Jones, we owe the distinctly English development of the Renaissance of Italy, by which the Gothic and Tudor methods of building had been superseded. From this master's hand there was the wide choice of St. Paul's, Greenwich Hospital, and the many fine city churches; but in the Orangery of Kensington was found a building that could be strictly reproduced to its real size. With dignity and fine proportion it unites a pleasant homeliness and simplicity peculiarly belonging to English work. They forthwith commissioned Messrs. Ernest George and Yeates as architects to reproduce a replica of this building, which is of red brick and white stone, and 170 feet in length.

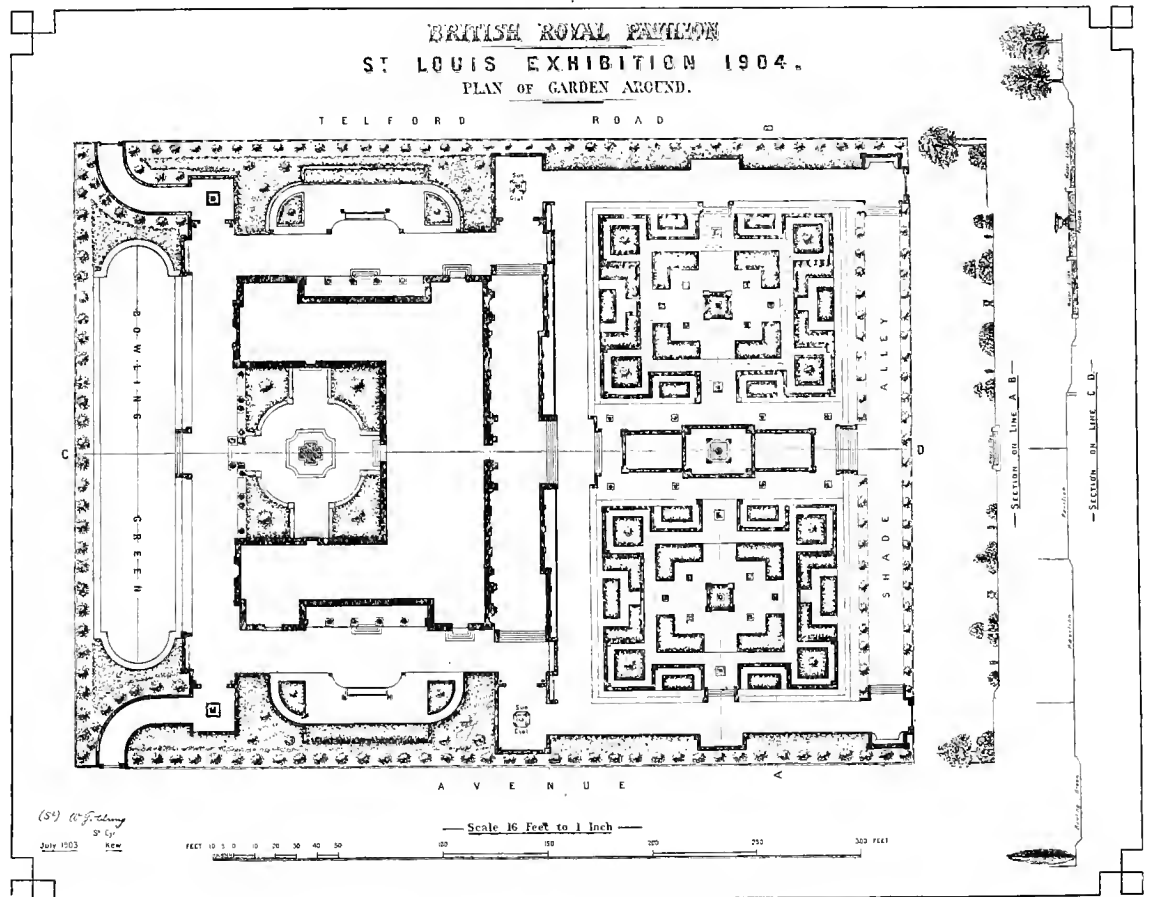
In the replica at St. Louis of Wren's building, the only departure from the original is the introduction of an enriched plaster ceiling such as would be found in a house of the period; the Orangery was left bare and white-washed. On the south side of the building is

a stone-paved terrace of corresponding size, and on this, no doubt, royal groups have gathered above the quaint parterres, clipped Yews, fountains, lead statues, and other departed glories of Queen Anne's favourite garden. The work of building the pavilion was carried out by Messrs. Trollope and Sons of London.

Mr. W. Goldring of Kew was appointed by the Royal Commission to design a garden to harmonise in character with the building, and he adopted in his plans a modified form of a garden of the period at which the Banqueting Hall was built. In the garden surrounding the pavilion an attempt has been made to reproduce on a small scale the style of garden that was generally attached to the mansion residences in England during the reigns of William III. and Mary, about the latter part of the seventeenth century, and at the time of

fashion became established and general throughout the country. The Dutch landscape gardeners whom William engaged to carry out his ideas were soon followed by numerous noteworthy English practitioners in the art, so that during Queen Anne's reign a great impetus was given to this Dutch style throughout the country, to be followed later by a school of landscape gardeners opposed to the Dutch ideas of design, and in consequence many of the finest examples of the Dutch style of gardens were destroyed, to give place to what was termed the "natural" style, in which formality and straight lines were substituted by irregularity.

The Queen Anne gardens were a pleasing combination of the Tudor, Jacobean, and Dutch styles. Their characteristic features were stately terraces, shady avenues (or "pleached alleys," as they were called), formal parterres



PLAN OF GARDEN. (Reduced from original.)

Scale of plan above about 100 feet to 1 inch. Description on line from C to D: Bowling green (sunk 1 foot 6 inches), shade trees behind; terrace (20 feet wide), with statues at end, surrounded by Yew hedges; pavilion; inner court, with fountain and Palms; terrace (24 feet wide by 100 yards long), with sundials at ends; fountain (90 feet long by 25 feet wide), centre basin 1 foot 6 inches above side basins; pleached alley of shade trees, raised 3 feet above general surface; flower garden panels on each side of fountain (120 feet by 100 feet), sunk 1 foot 6 inches below general surface, and 3 feet below south terrace. Design of panels outlined by clipped dwarf evergreen hedges; centre of panels of turf, paths around beds of paving stones.

Queen Anne in the early part of the eighteenth century. Previous to this period the large English mansion gardens were mostly in the Tudor style, and continued so during the troublous times of the Stuarts; and many a fine garden as well as house suffered at the ruthless hands of the Commonwealth leaders.

William Prince of Orange brought over Dutch ideas of gardening, and it was he who introduced what was then, and has since been termed, "Dutch gardening." He introduced this style of gardening about the Royal residences, and it was not long before the

enclosed by hedges clipped into shapes and embellished with topiary work, the forms of animals and birds cut out of Yews and Box. This topiary work was distinctly the special introduction from Holland, and was at the time considered to be the highest form of art in the garden. The fashion became a craze, and was carried out to such an extent that it came under the scathing ridicule of Pope, and after that declined. There are, fortunately, still some of the most noteworthy examples of these Queen Anne gardens preserved in England, and the tendency at the present time

is to continue the style, and a decided reaction has set in against the style of "imitation" of Nature.

There is a charm about a genuine old formal garden that appeals to most people, and the idea of such a garden is shown in the British Royal Pavilion Garden, formed in six months, though the matured example would require six generations to perfect. A water-basin and fountain were always associated with an old garden, and generally the bowling-green and pleached alley were as inseparable from it as were stone and lead statnes (often bad), and lead urns and vases, which were generally admirable, though the making of these seems to be a lost art nowadays. The long borders of old-fashioned flowers appeal to everyone in England, and the large beds of simple outlines are more in vogue than the embroidered parterres in the Italian style, that do not accord with the present prevalent practice of massing harmonising groups of colour.

The work of carrying out Mr. Goldring's plans was entrusted to Mr. T. W. Brown, formerly of the Royal Gardens, Kew, and subsequently superintendent of the gardens of the Emperor of Morocco at Fez, and he has carried out the work well under the disadvantages of restricted time and a severe winter climate.

The material for planting the garden beyond the trees and hedges has been contributed by the various firms in England, the chief exhibitors being the following: Messrs. Cannell and Sons, Swanley, hardy herbaceous plants and seeds; Messrs. J. Carter and Sons, High Holborn, bulbs and seeds; Messrs. J. Cheal and Sons, Crawley, Dahlias; Messrs. Cutbush and Sons, Highgate, specimens of topiary work, clipped Yews, Box, &c.; Mr. J. Forbes, Hawick, Phloxes; Messrs. Hobbies, Limited, Dahlias; Messrs. Kelway and Sons, Langport, Gladioli, Delphiniums, and other plants and seeds; Mr. Amos Perry, Winchmore Hill, hardy herbaceous plants; Messrs. Sutton and Sons, Reading, Gladioli, Lilies, Narcissi, and other bulbs.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

ACACIAS in variety, *Beschorneria tubiflora*, *Calpurnia aurea*, *Clematis indivisa*, *Corylopsis pauciflora*, *Eriostemon affinis*, *Illicium floridanum*, *Kniphofia longicollis*, *Rhododendron grande* and *Strelitzia Reginae* and variety *citrina*.

#### Palm House.

*Talacima Candollei*.

#### † Range.

*Asarum macranthum*, *Carazuata cardinalis*, *Centradenia floribunda*, *Dimorphotheca cuneata*, *Eranthemum graciliflorum*, *Feijoa sellowiana*, *Freesia Armstrongii* and *F. kewensis*, *Hypolytrum bananum*, *Jatropha podagrica*, and *Lachenalia convallarioides*.

#### Orchid Houses.

*Amblostoma cernuum*, *Cattleya Trianae*, *Cypripedium argo-spicerianum*, *C. Dauthieri albino* var., *C. rothschildianum*, *Dendrobium aureum*, *D. crassinode*, *D. findlayianum*, *D. Juno*, *D. luteiflorum*, *D. luteolum*, *D. Madonna*, *D. nobile*, *D. n. var. cooksonianum*, *D. n. var. pulcherrima*, *D. n. var. sanderianum*, *D. primuminum*, *D. Rolfe*, *D. splendissimum*, *D. wardiano-japonicum*, *D. wardianum*, *Eria stricta*, *Goodyera procera*, *Laelia lindleyana*, *Masdevallia triangularis*, *Maxillaria picta*, *M. sanguinea*, *Platclinis latifolia*, *Phaius Blumei*, *P.*

*grandifolius*, *P. Wallichii*, *Saccolabium violaceum* var. *harrisonianum*, *Selenipedium Titanum*, *Spiranthes tortilis*, and *Stelis tristyla*.

#### Greenhouse.

*Arum palestinum*, *Clianthus puniceus*, *Clivia miniata*, *Eupatorium petiolare*, *Hippeastrums* in variety, *Kennedyia prostrata*, *Pentapterygium serpens*, *Senecio Petasites*, forced bulbs and shrubs, and many other things.

#### Alpine House.

*Anemone blanda*, *Coptis orientalis*, *Corydalis bulbosa*, *C. kolpakowskyana*, *Crocus candidus*, *C. biflorus* var. *Pestalozzæ*, *C. Sieberi*, *C. versicolor*, *Hyacinthus azureus* var. *robustus*, *Iris reticulata*, *Primula denticulata* alba, *Saxifraga Albertii*, *S. burseriana*, and *S. burseriana major*.

## NOTES FROM THE MARKETS.

**H**EATHS.—*Erica persoluta* alba is on sale; *E. wilmoreana* is much better flowered than those seen earlier; *E. fastigiata*, which is not so well known, is a useful Heath; and *E. hyemalis* is holding out. On Saturday, the 5th inst., there were some small plants, well flowered, on one stand. The trade for Heaths through the season has not been very encouraging to growers, and Acacias, Boronias, and other hard-wooded plants also find less favour than formerly. In conversation with a grower we were told that if he had to depend on Covent Garden he would have to give up growing all hard-wooded plants. There is still some good nursery trade for them, but for London florists' work they find very little favour.

*Hardy deciduous flowering shrubs* are general favourites, but we do not see many that are really well done in the market. A few good Lilacs are seen, also *Pyrus* and double *Prunus*. *Azalea mollis* is not over plentiful, but some well-flowered plants are seen. *Rhododendrons* are also coming in, but with the early forced plants the flowers are rather small. *Genistas* are very plentiful, and on some stands some beautifully flowered plants are seen, but they do not sell so well as might be expected. Splendid Persian *Cyclamens* are plentiful, and sell fairly well. *Azaleas* continue plentiful; the bright colours sell best.

*Hyacinths* are still numerous; growers can hardly make a profit on these after deducting the cost of the bulbs. Tulips are also abundant; the samples vary considerably, and the best sell well, but many have to be cleared out at very low prices. All cut bloom is plentiful, and there is a little improvement in trade. White *Azaleas* seem quite out of favour; the short stems are much against this. Anyone starting with young plants and growing them on vigorously might find it pay to cut with the longest stems possible. Frequently *Azaleas* do not get treated liberally enough when they are making growth. Liberal supplies of manure may be given with much advantage, but it is only while growing that it should be applied.

*Liliums* continue plentiful, the longiflorums being particularly good. Lily of the Valley, both in pots and cut, is very good, but prices are rather low. *Gardenias*, *Eucharis*, and *Pancratiums* are also below average prices. The supply of English *Roses* continues to increase. Of reds, *Liberty* and *General Jacqueminot* are good; the former makes the highest prices, but the older favourite sells well. *Catherine Mermet* and *The Bride* are good.

*Carnations*.—There is now a good supply, and several growers have the American varieties in good form. A great variety of *Daffodils* is now in, and some of the best sorts are now to be seen. The supply in the French market was much below that of the previous week, and prices went up fully 50 per cent. on good stuff.

## THE FERN GARDEN.

### HARDY FERNS.

**S**INCE hardy Ferns are only now commencing to think of the growing season, and it will be some weeks yet before definite activity will commence, it is as well to anticipate their waking up by profiting by their dormancy to repot, replant, and divide whenever it is necessary. Last season's fronds are still to the fore in the evergreen species, and whatever is green and alive should be left intact, while what is brown and obviously dead can be removed. Out of doors, however, it is as well to leave the old fronds alone until the end of March, as they act as great protectors should those drying winds set in which are sometimes characteristic of the month. Ferns in pots should now be examined, and if in any way out of condition it is well to shake them out, remove any soured soil which will possibly be the cause of their weakness, and also any accumulation of old dead roots, and repot them in fresh soil, a compost consisting of good yellow loam and brown fibrous peat or leaf-mould in equal proportions, lightened with a liberal sprinkling of coarse silver or road sand. Plants in good health but which have formed many crowns of the shuttlecock type, such as *Shield Ferns*, *Buckler Ferns*, and *Lady Ferns* should be divided, since they show to much greater advantage when single crowns are grown than when several are bunched up together, fighting for dear life with each other and with their fronds intermingled as well as their roots. The fronds of a single crown plant will grow about twice the size of those produced by one of a mob, and also if it be a choice variety, plumose or crested, which is the kind we have in view as we write, will display its character much more thoroughly. We may mention here that it is the fine varieties only that we advise to grow. The common British Ferns, which are hawked about the streets or bunched up in boxes outside nurserymen's shops, are absolute weeds in the eyes of the connoisseur of British Ferns, and if seen at all in his collection are only grown to complete it and as contrasts to those far more charming forms to which these weeds have given rise by sporting. To effect the division aforesaid, the plants are best lifted, when it is easily seen that the side shoots are practically independent plants, with roots as well as fronds of their own, and as a rule a blunt instrument inserted behind them will easily force them off when the roots can be disengaged from the general mass, and the Fern is ready for planting. Where as in some cases the main crown has divided, the separate centres, if a neck exists between them, can be forced or cut apart, taking care not to pinch them, and so form independent specimens. Ferns with travelling rootstocks like the *Polypodies* look best as established specimens, and should be grown in pans instead of pots, thus giving them an opportunity of spreading. If division be desired or propagation in quantity, every piece of the travelling rootstock with a growing tip, a frond or two, and some rootlets will form an independent plant. A number of the choicest varieties of *Shield Ferns* (*Polystichum*), especially the plumose ones, have a knack of forming little bulbil plants an inch or so up the frond stalk on the inside, and it is as well when removing the fronds to look for these and instal them with a bit of the stalk in little pans, when they will root and in time give new specimens. These kinds often are nearly barren of spores, so that this forms almost the only way to propagate them, and in any case much time is saved, and, moreover, it is fairly certain that the plants will come quite true. This is also a good time for the cleansing of pots and pans and generally putting the fernery in order, since the least possible damage now results to the future growth, and as the old fronds have run their course a little damage to them is immaterial. It is, however, not advisable to remove green fronds as it impoverishes the plant. In repotting a good look out should be kept for worms and grubs of all kinds.

CHAS. T. DRUERY, F.L.S., V.M.H.

## RIVIERA NOTES.

**IRIS PALÆSTINA** has improved so greatly this second season that it is worth mentioning as an admirable contrast and companion to *Iris reticulata*. The spreading green leaves and creamy flowers of *Iris palæstina* become most effective when in contrast to the spiky growth and deep rich colouring of *I. reticulata*. Being of the *alata* section it may not be hardy everywhere, but as it flowers so much later than *I. alata* it is well worth a trial in combination with *I. reticulata*. In this climate it needs no care when once planted, but it prefers a strong soil. The double *Sparmannia* is in great beauty this winter. Its heads of double white flowers are so soft and round they almost remind one of the Guelder Rose; its pale green leaves are often too large and too abundant, and in England it has a bad reputation for not flowering. No doubt the heat and drought of last autumn ripened the wood very fully, but the secret of success is, I think, to keep it to a single stem as much as possible, and if it does not flower the first year it will undoubtedly do so the second, when it makes a branching head. The common Lilac has often much the same fault; if you let the suckers grow there are plenty of leaves but not much flower, while if you keep the Lilac to a single stem it flowers abundantly after the first or second season. Certainly when in abundant flower the beauty of the double *Sparmannia* is a thing to remember, and is worth a little trouble.

**PRUNUS DIVARICATA** is out almost as soon as the Almonds, and it is decidedly hardier. The white of its small blossoms is so cold that it makes one think of "Blackthorn winter," which (in a measure) reaches us here when the *Acacia dealbata* is in full flower, some time or other during the month of February. Well known in England, it is not often seen here, and perhaps it is more valuable in the north than with us. How beautiful a double form of it, like the double Blackthorn, would be.

**ERICA MEDITERRANEA HYBRIDA**, which has a flower like *E. carnea* on the growth of *E. arborea*, is a plant for the north as well as the south. It is only now getting well known here, and in the future it should be as indispensable to the shrubbery as *E. carnea* is to the flower garden in winter. The very best and most useful things are often neglected at first, as in this case, but after a time, when once its beauty is developed, it should be as universally grown as the *Laurustinus*, and give an added charm to the early spring garden. It stands pruning remarkably well, and might even be employed as a hedge, where its cheerful lilac sprays of blossom would contrast well with *Forsythia* and other early spring bloomers behind it. The colder weather of the last week has suited the fine form of

**MEGASEA LIGULATA**, commonly grown here under trees, where nothing else can thrive, and I note with surprise that the forms I brought out from England, thinking them to be superior, are, on the contrary, not to be compared, either for size or colour, to that grown here for many years. It will be interesting to see if another season alters this state of things, for I find that plants are much affected at first by the change of soil and climate, some very favourably, and others quite the reverse.

The fragrant *Iris olbiensis* is now thrusting up its flowers among the bent grass and grey Rosemary on the bank. Its deep purple petals are a charming contrast to the cloud of pink Peach

blossom above; the yellow form is, curiously, quite a month later, as if it preferred to wait for the brown leaves of the young Cherries that expand at the same time. Undoubtedly there are natural affinities among plants, and I have often wondered what plant or tree is the natural companion of *Acacia dealbata* in its native country, Australia, for here its intense brilliancy of colour (yellow) sneers somehow with its surroundings; it is too garish and hard, in spite of its lightness and grace, yet I doubt not that in Nature all is harmonious where it flowers by the water-courses of its own home.

**CYCLAMEN LIBANOTICUM** has now proved itself to be one of the very prettiest of its race. In the wild garden a tuft or two of it among *Anemone blanda* (both the white and the blue forms of which bloom together with it) make as dainty a group as can well be imagined. I do not see any seedlings from it, which makes me fear there is something wrong, but it is so particularly neat and attractive in habit, form, and colour that I hope I never may be without some of it. Not even the giant Persian *Cyclamen* makes a more beautiful group, for *Cyclamen libanoticum* carpets the ground with its leaves and flowers in the neatest and most attractive fashion, while the massive *Cyclamen persicum* is rather apt to be lax and straggly when left to Nature.

Nice.

EDWARD H. WOODALL.

## THE KITCHEN GARDEN.

## THE SUTTON RHUBARB IN SPRING.

**A**T this time of year the early Rhubarb is much appreciated, and this variety is a great acquisition on account of its earliness, colour, and excellent flavour. This season, owing to the scarcity of Apples, there is a greater demand for this plant, and the variety named forces so readily that it is more useful for that reason. For many years I grew the Early Red or Royal Albert, but it does not equal the variety noted above; of late years more interest has been taken in this plant, as several really good additions have been placed before the fruit committee of the Royal Horticultural Society, and though some are not yet in commerce they will be most valuable for early supplies. Even the one named above is not very plentiful, and doubtless, like the Potato, it needs much time to work up a good stock, and when lifted for forcing there is a certain waste. This variety possesses other advantages. It is a beautiful colour when forced or grown in the open, a bright rich red, which remains even when cooked. The sticks are large, and it is not unlike the well-known *Victoria*, but more upright in growth, earlier, and seeds very little. It is well worth growing by the side of the old sorts, as then its better quality will soon be noted. It gives a heavy return in good soil.

S. H. B.

## FORCING SPINACH IN SPRING.

In many gardens, especially those in low-lying positions, it is difficult to get good supplies of Winter Spinach from December to May. I am aware that there is the Beet Spinach, but the quality is not equal to the round-leaved or prickly. It may be thought unnecessary to force Spinach, but I do not think so, as in some places the demand is great, and, if possible, it is well to meet it. By sowing seed now the spring crop may be hastened considerably, and at a small cost of labour. Few vegetables raised under glass plant out better than Spinach. Seed sown now in small pots in rich soil, and given cold frame shelter for a time, may be planted out in a few weeks, but it is necessary to thin the seedlings, three to five plants in a pot being ample. I have also sown broadcast in a movable frame, and got a much earlier supply.

All, however, cannot spare glass to finish the crop, but grown thus it is not long about, and some varieties grow much quicker than others. I prefer the Carter, a very large-leaved variety, the leaf being more solid, a dark green colour, and of quicker growth than the well-known *Victoria*, the last named being much superior to the old round-leaved variety.

G. W.

**Iris germanica in flower.**—In one of the greenhouses at Sir John Thornycroft's pleasant Thames-side garden at Chiswick this beautiful plant is in flower, three days earlier than last year. The successful system responsible for such a satisfactory condition has been already described in these columns.—*Quo.*

**Sales of Orchids.**—Those interested in Orchids should not fail to visit Messrs. Protheroe and Morris's rooms on Fridays. There are always some good things to be seen, and they may often be secured at very moderate prices. On Friday, the 4th inst., some beautifully flowered plants of *Dendrobium wardianum* were sold at from 2s. to 3s. 6d. each, which was not the value of the blooms. Smaller plants of the variety *Lowi* made from 5s. to 10s. each, a low price for such a fine variety. A fine piece of *Odontoglossum Loochii* made £5. Two good plants of *Cattleya trianae alba* were sold, one making £5, the other £3. A nice piece of *Dendrobium Hildebrandti* made £3 3s. Some beautiful pieces of *Odontoglossum crispum* in flower went very cheap; one extra good variety went up to £1. Some of the newly-imported Orchids sold fairly well.

**Begonia semperflorens gigantea.**

A group of this shown at a recent meeting of the Royal Horticultural Society, though not sufficiently developed to be seen at its best, was sufficient to show what a desirable *Begonia* it is for flowering at this season. It is by no means a novelty; indeed, it is less grown now that it was a few years ago, being perhaps somewhat eclipsed by the numerous *socotrana* hybrids; but most of them are over before the new year is far advanced. While *Begonia semperflorens* is in itself a very variable species, the variety at the head of this note, as well as two or three others, were obtained by the intercrossing of that species with the Mexican *B. lynchiana*, which was first distributed about twenty years ago under the name of *B. Roezlii*. It is a tall-growing species of sparsely-branched growth, but with clusters of bright-coloured blossoms. It was a happy thought of M. Lemoine, of Nancy, to cross it with *B. semperflorens*, the result being seen in the variety at the head of this note, which in general appearance greatly resembles a deep-coloured form of *B. semperflorens*, but is much larger in all its parts. It is in winter and early spring that the flowers are most valuable, and at that time a group forms a very ornamental feature in the greenhouse or conservatory. In growing this *Begonia* there must not be too much stopping, as the weighty clusters of blossoms are at their best on stout, vigorous shoots. This variety is often to be seen in good condition in No. 4 greenhouse at Kew.—*H. P.*

**The Hepatica at home.**

To see the *Hepatica* in its native beauty one should see it upon the southern slopes of the Alps, where it is one of the mountain plants that creep nearest the Mediterranean wherever the hills approach the sea. Its favourite haunt is in woods of Oak, in which it is sheltered from the summer glare and yet freely exposed until its season of flower is past, while in autumn the falling leaves drift thickly into the nooks and crannies loved of the plant, providing Nature's own shelter and also food. With the first genial days of spring their buds begin to expand, until in March and April, when the snow has gone and the sun is hot at noon, the tufts of colour spread as a vast sheet of blue in every tone and shade, forming a dense carpet throughout the belt of woodland, varied here and there by clumps of wild *Narcissus*, by pallid *Asphodel*, or quaint wild Orchids, and mingling with *Primroses* and the pale blue Italian *Scilla*. Without stirring more than a few yards it is possible to fill a sack with roots, if minded to enjoy their beauty nearer home. A great green lizard pops up over a stone to see

what the stir is about, and at long intervals a peasant goes by on his mule, whose spreading panniers brush the growth beside the narrow track, while in his wonder at your occupation the rustic almost forgets to give you his good-day. But for the rest one is in a world of blue: the bluest of blue skies overhead, a blue haze upon the further hillsides, in the distance the deep dark blue of the Mediterranean, and around and at one's feet that all-pervading azure tapestry.—*Flora and Sylva*.

**A Tree Savin.**—The Savin is variable in growth and habit, several forms being grown in gardens, such as the horizontal, prostrate, and Tamarisk-leaved varieties. There exists, however, another form, which of late years has caused discussion among botanists. This shrub has for many years been grown by M. Jordan under the name of *J. Sabina Villarsii*, and it is thus mentioned by Villars in his "Histoire des Plantes de Dauphine (1789)": "We have a tree-like form at Saint-Clement, near Embrun;" the plant still exists in the same neighbourhood. This Tree Savin is also found around Grenoble, at Mount Saint-Eynard, the Casque de Neron, and the rocks of Comboire. In the department of Hautes Alpes it occurs as stated at Saint-Clement, and probably elsewhere in the district. This tree should be of value to growers of pyramidal Junipers. It is rare in gardens, growing rather slowly, and bearing berries of deep bluish black.—VIVIAND MOREL, *Lyon Horticole*, in *Flora and Sylva*.

**Calliandra Tweedii.**—This, though the best-known member of a large family, is quite uncommon, yet for brilliancy few stove plants can compare with it at this season when the flowers are developed. It is a native of Brazil, and forms under cultivation a freely-branched bush, with slender shoots clothed with pretty bright green divided leaves, a good deal in the way of some of its relatives, the Acacias and Mimosas. The flowers, which are borne in crowded heads, are small, except for the clusters of long, prominent stamens, which stand out like tufts of crimson silk. This constitutes the showiest portion of the inflorescence, and at a little distance suggests some of the members of the Myrtle family, such as the Callistemons, Melaleucas, *Metrosideros*, &c., to all of which the term Bottle Brush trees have at one time or other been applied. This *Calliandra* will grow freely with the treatment given to the general run of stove plants, but in order to flower it well the wood must be thoroughly ripened during late summer and autumn, to ensure which the plants should at that period have all the sunshine possible. It was introduced from Brazil in 1840, and though so attractive just now and not at all difficult to strike from cuttings, I have sought for it in vain in the catalogues of several nurserymen.—T.

**Polygala dalmaisiana.**—This is one of the hard-wooded greenhouse plants that still retain a certain amount of popularity, no doubt owing to the fact that effective specimens may be grown in comparatively small pots. It is of rather loose growth, the shoots being clothed with ovate leaves about 1 inch in length and somewhat glaucous. The flowers, which are borne in clusters at the points of the shoots, are a bright rosy purple colour, with a curious brush-like cluster of stamens. This *Polygala* is a native of the Cape of Good Hope, and to succeed in its culture it needs a compost made up of two parts peat to one part loam and a liberal sprinkling of sand. The little hardy *Polygala Chamæbuxus*, a delightful rockwork plant, belongs to the same group.—H. P.

**Freesia Armstrongii.**—This *Freesia*, recently noted as being in flower at Kew, has been known some years, but even now it is very uncommon, and cannot be obtained from the usual trade sources. In growth and general appearance it resembles a vigorous form of the popular *Freesia refracta alba*, but it differs markedly in the colour of its blossoms, which are of a pleasing shade of deep pink, particularly towards the edges of the segments. Another feature is the total absence of the perfume which adds much to the popularity of *F. refracta alba*. *Freesia Armstrongii* is named in compliment to Mr. W. Armstrong of Port Elizabeth, who found it wild, and, I believe, first sent it to Kew. A second and very pretty species (which,

like *F. Armstrongii*, is scentless) is *F. aurea*, which, though not a new plant, has only been generally seen within the last two or three years. This, which is rather dwarfier than the others, bears rich golden-yellow flowers. Like the rest, it is a native of South Africa, and in some districts it occurs in great profusion.—H. P.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

#### DRILL HALL MEETING.

There was an excellent display of plants and flowers at the Drill Hall on Tuesday last. Orchids were very finely shown. The Orchid committee awarded one first-class certificate and three awards of merit to new Orchids. There were numerous groups of forced shrubs, hardy plants, Primulas and other greenhouse flowers, Ferns, &c., although no awards to new plants were made by the floral committee. The fruit committee is having no work at all this spring. There was only one dish of Apples put before them on Tuesday, at the previous meeting there was no fruit at all, and at the penultimate meeting one dish of Pears only. The Drill Hall was crowded both morning and evening.

#### ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. James O'Brien, J. Gurney Fowler, James Douglas, Walter Cobb, H. Ballantine, Norman C. Cookson, de B. Crawshaw, Jeremiah Colman, H. T. Pitt, J. Charlesworth, W. A. Bilney, Richard G. Thwaites, A. A. McBean, F. W. Ashton, E. Hill, F. J. Thorne, T. W. Bond, E. Sander, M. Gleeson, J. W. Odell, W. Boxall, H. H. Young, H. A. Tracy, W. H. White, Francis Wellesley, H. Little, and J. Wilson Potter. Baron Sir Henry Schröder, Bart., The Dell, Englefield Green (gardener, Mr. Ballantine), showed some choice and splendidly flowered Orchids, for instance, *Dendrobium leechianum*, *D. wardianum*, *D. heterocarpum album*, *D. hybridum*, *D. Dulce*, *Cypripedium lathamianum*, *C. Calypso* Oakwood var., *C. mastersianum*, *C. macrochilum*, *Calanthe Baron Schröder*, *Lycaste Skinneri* alba, *Odontoglossum crispum* Mrs. H. G. Moon, O. Coradinei, O. Adriane, and O. *Memorie Victoria Regina*. Silver-gilt Flora medal.

Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound), exhibited a group of choice Orchids, the plants finely grown. *Cymbidium Lowianum*, *Odontoglossum crispum roseum*, O. *ruckerianum*, O. *triumphantum*, *Platyclinis glumacea*, *Phaius Norman*, *Cattleya Schoderi*, *Acineta Colmanii*, all evidenced the best of culture. *Masdevallia courtauldiana*, *Cypripedium niveum*, *Dendrobium Othello* Gatton Park var., *Ceoloyne cristata leoniana*, *Brassavola nodosa grandiflora*, and others were well shown also. Silver Flora medal.

Messrs. James Cypher and Sons, Cheltenham, showed some excellent *Dendrobiums* in many varieties, as well as other Orchids. Among the *Dendrobiums* were *D. barbatulum*, *D. nobile nobilium*, *D. n. sanderianum*, *D. n. statterianum*, *D. Backhousei*, *D. jamesianum*, and *D. Apollo* album. *Cypripedium Maudici*, *C. villosum giganteum*, *C. lathamianum*, C. Charles Richmond (barbatum X bellatulum), *Miltonia vexillaria*, *Sophranitis grandiflora*, and *Laelia jozheana* were also shown by Messrs. Cypher. Silver Flora medal.

The group of Orchids from Messrs. Sander and Son, St. Albans, contained *Dendrobium nobile nobilium*, *Cymbidium hookerianum*, C. *eburneum-lowianum*, *Trichopilia suavis* var., *Holetia brucklehurstiana*, *Laelio-Cattleya blechleyensis*, *Maxillaria venusta grandiflora*, *Chysis Chelsoni*, *Zygopetalum crinitum*, *Laelio-Cattleya Edwardii* (*cinabarina* X *hardyana*), *Laelia harpophylla*, *Epidendrum decandolleana*, *Odontoglossum crispum Mariei*, *Zygopetalum crinitum*, and *Ceoloyne lactea*, all Orchids of exceptional attractiveness. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, exhibited a group of Orchids, in which hybrids of much beauty were conspicuous. The brilliant apricot-red of *Laelio-Cattleya Charlesworthii* made a bright patch in the centre, while *L.-C. Doris* (soft apricot sepals and petals), *Laelia Bristis* (lemon yellow with purple lip), *L.-C. Myra* (primrose, with purple lip), *L.-C. Myra Etoile d'Or* (rich yellow), and *Oncidium concolor* were all of striking colours. *Cattleya Enid magnifica*, *Laelio-Cattleya haroldiana*, *Lycaste Skinneri Fascinator*, *L. S. Exquisite*, and *L. S. Fairy* were also very handsome. Silver Flora medal.

R. G. Thwaites, Esq., Chessington, Streatham, exhibited a large display of Orchids, consisting largely of *Dendrobiums*. Some of the best were *D. nobile murhinianum*, *D. n. virginale* (raised from seed), *D. Wiganiae*, *D. Euryalus Apollo*, *D. Cybele elegans*, *D. wiganianum album*, *D. Isis*, some *Cattleyas*, and *Odontoglossums*. Silver Flora medal.

W. Thompson, Esq., Walton Grange, Stone, Staffs, showed some handsome seedling *Odontoglossums*, such as O. *Adriane* var. *Babette*, O. *Vuystekei*, O. *waltoniense* (*crispum* X *polyanthum*), and O. *crispum-harryanum*. Silver Banksian medal.

Messrs. Hugh Low and Co., Enfield, had a handsome group of *Dendrobiums*; for instance, *D. Boxalli*, *D. crassinode*, *D. rubicinctum*, *D. wardianum*, *D. nobile ballianum*, *D. roeblickianum*, as well as *Oncidium concolor*, *Ceoloyne cristata alba*, *Sophranitis grandiflora*, *Angraecum citratum*, *Cypripedium Helenii*, and *C. hirsutissimum*. Silver Banksian medal.

Captain Holford, C.I.E., Westnort, Tetbury, Gloucester (Orchid grower, Mr. Alexander), showed *Odontoglossum Adriane* var. *Lady Crawford*, *Dendrobium Clio Burford* var., *Ada antirrhata Westnort* var., and *Cypripedium Scipio*. Messrs. William Bull and Sons, Chelsea, showed *Laelio-Cattleya Myra*, *L.-C. Myra pallida* (a beautiful form, with pale primrose sepals and petals and crimson-purple lip), and *Cypripedium Boxalli* var.

*Laelia jozheana* var. and *Cypripedium villosum* X *Niobe* were shown by F. W. Wellesley, Esq., Westfield, Woking.

A cultural commendation was given to *Leptotes bicolor*, shown by Walter Cobb, Esq., Dulcote, Tunbridge Wells (gardener, Mr. J. Howes). Mr. Cobb also showed *Odontoglossum Adriane cobbianum* and a hybrid *Cypripedium*.

H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood), showed *Dendrobium aggregatum majus*, very finely flowered (cultural commendation), a very dark-flowered *Lycaste*, and *Liparis purpurea*.

De B. Crawshaw, Esq., Rosefield, Sevenoaks (gardener, Mr. W. J. Stables), showed *Odontoglossum crispum de Barri* and O. *X waltonense rosefieldense* (*crispum* X *polyanthum*).

A cultural commendation was given to Sir Trevor Lawrence, Bart., for *Dendrobium Luna*, very finely flowered. Messrs. James Veitch and Sons, Limited, Chelsea, showed *Cypripedium Harri-leaanum* (*harrisianum superbum* X *leeanum superbum*) and *Laelio-Cattleya Myra*.

Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman), showed *Dendrobium nobile* X *Wiganie* and *D. X McJap* (*McArthie* X *japonicum*).

C. J. Lucas, Esq., Warnham Court, Horsham (gardener, Mr. G. Duncean), showed *Laelio-Cattleya warnhamensis*.

Lord Rothschild, Tring Park (gardener, Mr. E. Hill), showed *Phalenopsis intermedia* Postell.

#### NEW ORCHIDS.

*Laelio-Cattleya haroldiana magnifica*.—A very fine form of this hybrid *Cattleya*, whose parents are *Laelia tenebrosa* and *Cattleya hardyana*. The lip is large, handsome, and of rich velvety purple colouring, and the soft red-purple petals are unusually broad. Other forms of this hybrid have previously been certificated. From Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.

*Odontoglossum crispum Rosendate* var.—A well-formed flower, the white sepals and petals and lip heavily marked with chocolate-red. The edges of the lower sepals are tinged with purple. From J. Wilson Potter, Esq., Park Hill Road, Croydon (gardener, Mr. W. H. Young). Award of merit.

*Odontoglossum crispum Kintesianum*.—Of unusual and somewhat curious appearance. The sepals are white, except for a tinge of lilac, while the petals, which point slightly upwards, are heavily marked with brick-red. From Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman). Award of merit.

*Dendrobium Melanodiscus* var. *gloriosum*.—This is a handsome and improved variety of a good *Dendrobium*. The sepals and petals are tinged with deep rosy purple. The throat is maroon-coloured, margined at the mouth with a band of rich yellow, followed by a band of white, and finally the lip is tipped with purple. From Mrs. Haywood, Woodhatch Lodge, Reigate (gardener, Mr. C. J. Salter). Award of merit.

#### FRUIT COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, T. W. Bates, S. Mortimer, W. Pope, Horace J. Wright, H. Markham, J. Willard, James H. Veitch, R. Lewis Castle, H. Parr, F. Q. Lane, J. Lyne, G. Norman, A. H. Pearson, W. Poupert, and Owen Thomas.

A dish of apples, shown by Messrs. Vokes, Kingsworthy, Winchester, was the only exhibit before this committee.

#### FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. H. B. May, R. Deao, J. F. McLeod, R. W. Wilson-Ker, F.S.A., Charles T. Drury, John Green, James Hudson, J. Jennings, William Howe, Charles Dixon, W. Bam, J. A. Nix, C. J. Salter, Charles E. Pearson, Charles Jefferies, H. J. Cutbush, R. W. Wallace, William Cutbush, Charles E. Shea, W. P. Thomson, Harry Truett, George Paul, J. W. Barr, E. C. Notcutt, E. H. Jenkins, R. Froebel (visitor), Edward Mawley, R. Hooper Pearson, C. R. Fielder, E. T. Cook, George Nicholson, C. Bick, and George Gordon.

An excellent group of Ferns from Messrs. J. Hill and Son, Edmonton, included *Platycerium*, such as *P. Veitchii*, many *Davallias* and *Adiantums*, several fine *Eymnogrammas*, *Woodwardia orientalis*, *Adiantum asarifolium*, and the very distinct *Pteris internata*. The group included many good and useful things, all well grown and well arranged. *Adiantum Weigandii* is a very distinct form. Silver Flora medal.

The alpine and hardy plants from Messrs. Cutbush and Son, Hightate, included *Megaseas*, *Iris reticulata*, *I. Heldreichii*, *Saxifraga apiculata*, *Shortia galicifolia* and its variety *rosea*, *Epigaea repens* full of bloom, the pretty yellow *Lithospermum canescens*, the hybrid blue *Primroses*, the vernal *Gentian* in flower, some charming masses of *Hepatica*, &c. *Rhododendron chameacis* was very beautiful. Messrs. Cutbush also showed *Tree Carnations* and a fine lot of forced shrubs—*Prunus*, *Wistaria*, *Azalea mollis*, *Laburnums*, *Cytisus Adamii*, *Guelder Rose*, *Ribes*, and the like, with *Palms*, *Aralias*, and other things interspersed. Silver-gilt Banksian medal.

Messrs. B. S. Williams, Holloway, also set up a group of forced shrubs. *Lilacs* in plenty, *Azalea mollis*, *Palms*, *Viburnums*, *Guelder Rose*, and the like. Silver Banksian medal.

Messrs. Cheal and Sons, Crawley, had the blue *Primroses*, *Ericas*, *Soldanella alpina*, and various *Primulas* with rock shrubs in a rockery arrangement.

Mr. R. Anker, Addison Road, Kensington, had miniature examples of *Cacti*, *Aloes*, &c., together with pots of *Trifolium repens pentaphyllum*, &c.

Messrs. William Bull and Sons, Chelsea, showed *Azalea indica*, *variegata*, and others. All the plants were a mass of bloom.

An interesting exhibit of catkin-bearing plants from Lord Aldenham, Elstree, included *Garrya*, several species of *Alnus*, with *Corylus* in several forms, and the large *Populus alba canescens pendula*. A most interesting lot. Vote of thanks.

Ferns, with *Gardenias* and *Boronia*, were comprised in the exhibit from Mr. H. B. May, Edmonton. Of the former *Pteris Childsii* was notable, and with *Davallias* and *Adiantum farleyense* gave a freshening look to the whole. *Gardenia florida*, as pot plants, and *Boronia megastigma* were very attractive. Silver Banksian medal.

# THE GARDEN

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[MARCH 19, 1904.

## DESTRUCTION OF BRITISH FLOWERS.

IT was well that the Rev. Professor Henslow, at a recent meeting of the Horticultural Club, drew attention to the wholesale destruction of the British flora, and urged Parliamentary action to protect rare and even familiar flowers from extermination. A sort of protection exists over the fauna of Britain, though the Act is seldom enforced, in spite of the many misdeeds committed by the mercenary and thoughtless; but flowers may be dug up and destroyed with impunity. All who love their gardens, and therefore the flowers in them, must possess sufficient zeal in the interest of wild flower life to bring the law into force for its protection. It is always the thoughtless that are the most blameworthy, but the collector who is determined to stamp out a species for the sake of boasting that his herbarium contains the last of a flower that has gemmed many a wild corner with its beauty for generations is despicable. This selfish motive is revealed not by the plant collector alone, but also by those who collect butterflies and birds' eggs. It was mentioned that the pretty larger Butterwort (*Pinguicula grandiflora*) was almost extinct, one colony known to a speaker at the meeting having disappeared in a year through this idiotic and senseless desire to skin the English counties of their flower life.

The collector who is anxious for knowledge and specimens for his herbarium or garden takes sufficient for his purpose without reckless disturbance of the roots. Those who search hill and dale in this spirit acquire a keen love for Nature generally and quicken their powers of observation. It is a health-giving pursuit which we in nowise desire to frustrate, but to destroy for the sake of acquiring a collection no one else can accumulate is nothing short of criminal. A herbarium is well enough in its way. Under proper control it is invaluable for botanical reference, as at Kew; but the true botanist has no evil intent when he attempts to form a representative collection of British flowers; he knows the way to lift a plant or any portion of it, with no intention of blotting it from the British flora.

Many common Ferns are rapidly becoming extinct; they are grubbed up in cartloads from the lanes of Devonshire and other well-favoured counties and sold in the nearest markets or in Covent Garden. The plants are dragged out of the ground with or without roots, and few

survive. This is the fate of common things, and of the rare species it may be said that every year brings them nearer to total extermination.

Local guides are responsible for much mischief. The haunts of rarities are pointed out with a clearness that makes access to them as easy as to some neighbouring pleasure resort, and the result is destruction in a few summers. The visitors, filled with a desire to reproduce the local flora in their back yards, bring back handfuls for themselves and friends, and in doing so flatter themselves they are devoted to Nature in general and flowers in particular.

We hear and read much about studying Nature—a little more than we care about. The life-giving breezes of the moorlands and the restfulness of country lanes and woodlands bring ruddy cheeks to the tired workers in the towns; but all this may be enjoyed without destroying the things that give the countryside its enduring charm—the Primrose in the sheltered bank, the Cowslip in the mead, and the Dog Rose in the hedgerow. These gifts from the lap of Nature are for the pleasure of all, and not for the "Nature" societies to grasp at for the instruction of the hordes of so-called pupils, whose bent is destruction, and whose love of flowers is expressed by dissecting them to dab between bits of blotting-paper, never to see light again. If county councils wish to encourage half days in the country let the teachers first instil in the minds of their pupils that every wild flower has its message to the world. Under careful tuition the child reverences the wayside flowers, and acquires a knowledge of their names, and in time the places the botanist has allotted them in the great natural orders.

## EARLY CHRYSANTHEMUMS.

### FLOWERS FOR THE AUTUMN GARDEN.

MARKED progress has been made in recent years with the early-flowering Chrysanthemums, and the time has come when a greater variety should be introduced into English gardens. Only seventeen or eighteen years ago the Japanese varieties at that time catalogued were very few compared with what exist to-day. About a dozen good Japanese varieties were in existence, and of these not more than three or four are now in general cultivation. At that time the late M. Simon Delaux created a sensation by introductions of the Japanese type of flower. He had been working for fifteen years to achieve his purpose, and his efforts were rewarded with success. In succeeding years

new and interesting sorts were raised, and in 1890 the list had grown enormously. The greatest change, however, was effected in 1891, when M. Delaux distributed in one set 125 new varieties, the Japanese sorts being almost exclusively represented. It was impossible to deal satisfactorily with so large a number of novelties in one season, and in consequence many of the best among them were soon forgotten, though some of the original set which had been lost for years were met with in the trials at Tamworth in 1902 and 1903.

In the years immediately subsequent to M. Delaux's great achievement English raisers of seedling Japanese varieties were also at work. So successful have been their efforts that the French and other Continental raisers are left entirely behind. English raisers have been wise enough to select the better varieties for hybridising, and in consequence many beautiful sorts have been added. Mme. Marie Masse, a lilac-mauve Japanese variety, introduced in 1894, was the beginning of better things. From this variety have sprung many delightful novelties. To begin, it developed no less than four sports—cream, chestnut, cerise, and yellow—and there are already quite a number of beautiful seedlings in cultivation from the same sort. It is for the garden that these plants are so welcome. They are sometimes described as hardy outdoor Chrysanthemums, and though this description is not strictly accurate, when generally applied to the section it is perfectly correct respecting a large number of the plants, and especially so of Mme. Marie Masse and its sports. This group has a branching growth, and single plants will carry from 100 to 150 flowers. When left to grow naturally the plants are seen to better advantage. Pinching back or stopping the shoots is quite unnecessary with the early sorts, and far more satisfactory results are seen when the plants, except for staking and tying, are left to develop naturally. The constitution of this ideal family of plants is strong and robust, and no matter how severe the winter may be they come through the ordeal apparently unharmed. They are truly perennial, and should be in all lists of hardy plants. Flowering time begins in late August and continues throughout September and October, and in mild seasons, such as last autumn, the display continues well into November.

The early Chrysanthemums create brilliant effects. The smallest plants, if planted towards the end of May, will make handsome bushes by the flowering period. Many of our readers may remember the trial of early-flowering Chrysanthemums at Chiswick in 1897. "They made a magnificent display," the *Journal of the Royal Horticultural Society* states, but those sorts are completely eclipsed by those of to-day. The newer race shows great variety, both in the colour and form of the flowers. The warm colourings of the early Chrysanthemums succeed the summer's

display, thus prolonging the brightness of the garden for a month or two longer. They are essentially for the outdoor garden, as their vigorous root action, when once they get established, demands greater space than pot culture affords. Although we have referred almost exclusively to plants of Japanese origin, the pretty Pompons must not be forgotten. Progress has been slow in this section; still, there have been several decided gains of late years. The newer sorts are distinctly pretty, and deserve more extended culture.

There is a tendency to crowd the plants in the border. Allow plenty of room, as well-grown plants give a greater wealth of flowers than those crowded together.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

March 22.—Royal Horticultural Society's Drill Hall Meeting.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).

April 12.—Brighton Horticultural Show (two days).

**Royal Horticultural Society.**—The next fruit and flower show of this society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. A lecture on "Heredity of Acquired Characters" will be given by the Rev. Professor G. Henslow, V.M.H. At a general meeting of the society, held on Tuesday, the 8th inst., fifty new Fellows were elected, amongst them being Sir Henry Pottinger, Bart., Lady Lyall, and Lady Slacke, making a total of 351 elected since the beginning of the present year.

**Sale at the Royal Horticultural Society's Chiswick gardens.**—The auction sale held on Thursday, the 10th inst., indicates that these interesting gardens will soon disappear. Favoured by a bright sunny day there was a large attendance, but many were there simply to take a last look at the old place. One could not help thinking that much useful horticultural work might yet be done in such a large, open space, but the place already begins to bear a dilapidated appearance, the houses, which at one time were so well filled with collections of useful plants, being almost empty. The old Fig trees (occupying what was once the Palm house), with their gaunt and naked appearance, looked as if they belonged to past ages. Buyers for these were not numerous, and the prices realised did not come up to expectations. Other fruit trees found very few buyers, there being scarcely any competition in the bidding. Some things sold very well, the *Yucca recurvifolia*, of which there were a good many fine plants, bringing quite a lively competition, 95s. for ten plants being the highest price noted. Some of the Palms sold very well. The large Camellias in the entrance also found several buyers. The prices paid were not high, but the cost of moving will add considerably to the auction price. Some of the large specimens were bought for Kew.

**Chicory as a spring vegetable.**—This is not much grown as a forced or spring vegetable in this country, but on the Continent it is in great favour as a salad. I would advise a trial of the large variety, the Witloof, which should be boiled in the same way as Seakale, and served hot. The flavour may not be much relished at first, but it soon becomes palatable; indeed, to many who have lived abroad it is much esteemed. On the other hand, when grown for use in this way I do not mean the loose, long leaves one often sees when used as a salad, but the close, compact growth from 4 inches to 6 inches long, with a rather thick base; indeed, very much like Seakale cut in a young state. When Chicory is used in this way it requires simple culture, and may be started into growth in any dark place with a temperature of

50°. Of course, the growths vary according to the roots, but if seed is sown in the spring and ample space given to the plants they will make excellent forcing material for next season. The roots are not unlike a large Parsnip, and they are very hardy, but in exposed situations they are lifted and stored. This is not necessary in well-drained soil, and a few roots placed indoors every fortnight from November till April will give a supply. I have noticed that large quantities of this plant are sent from abroad in the condition I have referred to for using as a vegetable, the variety being the Witloof or Large Brussels, but as its culture is so simple it is well worth growing as a spring vegetable.—G. WYTHES.

**Bulb-growing at Nairn, N.B.**—Although on a comparatively small scale, the show of bulbs held in connexion with the spring flower show and industrial exhibition of the Nairn Seamen's Society on the 9th inst. deserves some notice. A feature is made of Hyacinths, and, although the number on exhibition was smaller than last year, it was stated that a much greater number than formerly had been cultivated in the dwellings of the fishermen. The bad weather had been against them coming forward. Those shown were of excellent quality. The leading awards were: Silver cup, for best Hyacinth in the show, Miss Ellen, Union Street; best blue Hyacinth, Mrs. Cope, Park Street; white Hyacinth, Mrs. M'Pherson, Harbour Street; red, J. Cameron, Wellington Square.

**The National Sweet Pea Society—Provincial prizes.**—The committee has arranged with the Wiltshire Horticultural Society, whose exhibition will be held on August 10, to include in the schedule a special class for Sweet Peas, for which the National Society will provide the prizes. The class is identical with the audit class on page 19 of the National Sweet Pea Society's schedule, and all members of this society may compete free, others on paying the usual fees of the Wiltshire Society, of which Mr. Leonard Sly, Salisbury, is the secretary. The total prize money offered by the National Sweet Pea Society is £3 2s. 6d. and a silver medal to the winner of the premier place. Mr. Sly will send full particulars. The society has also been able to arrange with the Galashiels Horticultural Association for a class on behalf of northern growers, the prizes being identical with those offered in the previous case. The class here is similar to the classification class on page 19 of the National Sweet Pea Society's schedule, and it will be contested on September 10. Members of the National Sweet Pea Society are entitled to exhibit free of special entry fee. The secretary of the Galashiels Horticultural Association is Mr. James Mallen, Galashiels, who will be pleased to send complete details of the class.—HORACE J. WRIGHT.

**Tree Ferns in Glasgow Botanic Gardens.**—Within recent years much has been done to make the Glasgow Botanic Gardens more worthy of the great city to which they belong, and, without sacrificing their usefulness to the students who frequent them, to render them more attractive to the public at large. The establishment is a fine one, handicapped although it is by the atmosphere of the city, and the recent changes have done much to improve it in every way. One of its features is the Kibble Palace, a noble glass structure, which is being improved by the substitution of better plants for the more common ones it formerly contained. A wonderful improvement has been effected by an alteration in the roof of the central portion, so as to admit more light, and by planting under it a group of Tree Ferns, arranged in a strikingly natural manner among rocks. This has been skilfully done. Those who have visited these splendid plants in their own habitats are among those who praise the Kibble Palace group the most. There are among them some noble Dicksonias and others, but it is in the skill of the grouping that the main charm consists. Certainly this is one of the many successes Mr. Whitton has had in the course of his work in the Glasgow parks.

**The Departmental Committee** appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held

sittings on the 9th, 10th, and 11th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Mouro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, the Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). On the 9th inst. Mr. W. W. Berry, Mr. Edward Pink, Mr. John Wood, and Mr. George Smith, as four Kent growers; on the 10th inst. Mr. John Riley, Mr. John Watkins, and Mr. J. H. Wootton, as three Hereford growers; and on the 11th inst. Mr. W. J. Lobjoit and Mr. W. Poupert, as two Middlesex growers, gave evidence. In addition, on the 11th inst. Mr. J. Struthers, C.B., of the Scotch Education Department, and Mr. Buckmaster, of the Board of Education, gave evidence.

**Persian Cyclamens at Farnham Royal.**—A house of Persian Cyclamens in the nursery of Messrs. W. James and Son, Farnham Royal, Slough, is bright with colour. The varieties are set out in groups to give effect to the various colourings, which pass from white to deepest blood-red, and we have never seen finer individual blooms, the petals having a look of strength without any tendency to coarseness. Many plants were so burdened with flowers that the leaves were almost hidden. There is beauty, too, in the foliage, which is sometimes a pale green, but frequently finely mottled and marbled and variegated, quite as much so as in many plants sold for their leaf colouring alone. The varieties are numerous, and all selected for the freshness and clearness of their colouring, shape of the flowers, and freedom. The cherry-red is a brilliant shade without trace of magenta, a cheery colour that is pleasurable in the sunlight and when in the house for decoration; the white is as pure as driven snow, the deep crimson of quite a glowing tone, and the salmon-pink pure and distinct. It is an object-lesson in bright and beautiful colours, and an indication that only by rigid selection and careful hybridising is it possible to achieve such results. The famous Cinerarias are opening their first flowers. We shall have something to write about these in due course.

**Spring flowers at Reading.**—I had the pleasure recently of attending one of the fortnightly meetings of the Reading Gardeners' Society early in March, when the subject under discussion was "Spring Flowers." Some time before the meeting began many members were engaged setting up cut flowers and plants. When the meeting opened there was a large display of the best kinds of spring flowers, forced shrubs, Orchids, &c. It was the finest exhibit I ever saw at a meeting of a gardeners' society, and this is an excellent way to keep up interest in the meetings. I was impressed with the many side issues this society has apart from the lectures and discussions. It does a good work in connexion with the Gardeners' Benevolent Institution. One evening a year the plants and flowers exhibited are sent to the hospital. It also assists members to find fresh situations when making changes, and does other useful work. The members number nearly 300; they are to be congratulated on their thriving society.—J. CROOK.

**Edinburgh and East of Scotland Agricultural College and horticultural teaching.**—Among the subjects before a meeting of the governors of the Edinburgh and East of Scotland Agricultural College, held on the 9th inst., was the question of the horticultural class at the college. The matter arose on the minutes of the Central Studies Committee, in which it was mentioned that the subject of altering the horticultural class arrangements and restarting the agricultural bookkeeping class had been remitted to a sub-committee for consideration. It appears from the statement of the chairman, Colonel Wardlaw Ramsay, that the horticultural class was not appreciated, but it was worthy of consideration whether a permanent lecturer on horticulture should not be arranged for. This might be done for almost the same cost as the present arrangement. Ultimately the whole matter was remitted to the committee dealing with the horticultural class. As a contrast it was reported that the forestry classes had proved very successful.



**Grape competition at the great Shrewsbury show.**—It is interesting to know that the Shropshire Horticultural Society, in the great champion Grape class competition in August next, will adopt the Royal Horticultural Society's "Rules for Judging." Scale of pointing as heretofore—Muscat Grapes, black or white, eleven points maximum, and for all others, black or white, ten points.

**Eranthemum pulchellum.**—It is seldom that one meets with this lovely old plant, but where large show houses have to be kept gay during winter it is a worthy plant to grow. The colour of the flowers is an intense blue. It is not handsome, there being a stiffness about its habit which is not pleasing; but when judiciously mixed with other plants its colouring proves very effective. It is easily propagated by cuttings, which can be had abundantly from the old plants when they are cut down and placed in heat. It will be found to thrive well in the warm greenhouse. During the growing season the syringe should be generously used to keep off red spider, a pest to which it is very subject.—E. HARRISS.

**Anopteris glandulosa.**—This, the Tasmanian Laurel, is a very ornamental greenhouse shrub, which, especially when in flower, would be taken rather as a near relative of *Clethra arborea* or one of the *Arbutus* family than a member of *Saxifragæ*. It is a freely branched, somewhat upright-habited shrub, plentifully furnished with deep glossy green leaves. They are about 6 inches long, ovate, and with the edges regularly serrated. The flowers, which are borne in erect terminal racemes, are white, saucer-shaped, about  $\frac{1}{2}$  inch in diameter, and are usually at their best in March or April. It is by no means a common subject, though it can be obtained from those nurseries (now few in number) where general collections of greenhouse plants are grown, and in the favoured districts of the south-west it will succeed out of doors. In any case it well repays greenhouse protection. This *Anopteris* was first introduced from Tasmania in 1823.—T.

**Clivia miniata.**—As a foliage plant alone this is decidedly handsome, but when in addition the cluster of handsome leafage is crowned by a massive head or heads of showy blossoms it stands forth in its way without a rival. These flowers are in their turn succeeded by large Cherry-like fruits, which when ripe are of a bright red colour. By a process of selection a great improvement has taken place in the *Clivia* within the last decade or two, as the best forms now have round, well-shaped blossoms, very different from the narrow-petalled ones at one time so generally met with, while the flower clusters are also larger, and in many cases far brighter in colour. There is, however, too long a list of varietal names, as many of these garden forms approach each other very closely, even if they are not actually identical. This cannot in any way, however, be urged against the variety *citrina*. The flowers of this are of a citron yellow or straw colour. To the amateur with but a single greenhouse, as well as in gardens of great pretensions, *Clivia miniata* has much to commend it, for, given the ordinary treatment of the general run of greenhouse plants, it will do well. It is the showiest member of the genus, but *C. cyrtanthiflora* is valuable from the fact that it flowers considerably earlier.—H. P.

**Begonia gigantea carminata.**—This was well shown at a recent meeting of the Royal Horticultural Society by Messrs. J. Laing and Sons of Forest Hill, and on a recent visit to the nursery I found the plants in even better condition. It is one of those of which the male flowers do not open freely, but in a bud state the large trusses of brilliant colour are most effective. The flower stems are also of the same bright colour, and stand up well above the bright green foliage. It may be compared with the variety *semperflorens gigantea rosea*, but is deeper in colour and also of better habit. There are not too many good bright-coloured flowers just at this season of the year, and the above should prove a very useful addition. It belongs to the vigorous-growing section, which should be propagated late in the season, or any time during June or July. Three plants may be

grown in each pot, or single plants started earlier and stopped will branch out and make good bushy plants.—A. HEMSLEY.

**Fuchsia splendens.**—Introduced from Mexico in 1841, this pretty *Fuchsia* has never attained any great amount of popularity, and as far as I know it has not been used by the hybridist in the production of any of the numerous garden forms. In common with several of the original species, it well merits extended cultivation, and if required may be had in bloom thus early in the year. It is naturally of free growth, and if allowed space for its development will form a good-sized bush, though effective specimens may be grown in 8-inch pots. In this species the leaves are heart-shaped, hairy, and pale green, while the drooping flowers, which in shape more nearly resemble a *Correa* than a *Fuchsia*, are bright crimson in colour, tipped with green. In growing this *Fuchsia* it should be well exposed to the sun during the latter part of the summer in order that the wood may be thoroughly ripened. When in a temperature above that of an ordinary greenhouse it will flower early in the year, but is perhaps most effective when allowed to develop naturally in the spring. The many garden forms have to a great extent eclipsed these original species, yet some, such as *F. fulgens*, occasionally bedded out during the summer; *F. corymbiflora* and its white variety, which last was distributed many years ago by the *Chrysanthemum* pioneer, Mr. Salter, of Versailles Nursery, Hammersmith; *F. serratifolia*, *F. triphylla*, with the tiny-flowered *F. thymifolia*, and *F. microphylla*, and the distinct *F. procumbens*, are all well worth growing.—T.

## THE GARDEN TULIP.

IT is very interesting—and, perhaps, instructive—to note the craze for a certain flower, florist's or otherwise, at one period and its stolid neglect at another. The Tulipomania which raged chiefly in Holland and the Netherlands rather more than 200 years ago is well known, and even in our own time exorbitant prices have been charged for Tulips. The last catalogue I remember with the high prices attached was issued by Mr. Groom of Walworth; the highest price was £105 per bulb, and there were several at fifty and twenty-five guineas. This was in 1854, but in a year or two later all Mr. Groom's Tulips were sold by auction by Messrs. Protheroe and Morris at very low prices, and that was the last of the high prices. The Daffodil has had its turn, and now the Potato. I had sent to me recently a copy of a cheque, drawn for £300, the price of 2lb. weight of Potatoes. The dealer who bought at this price seems to have gauged pretty fairly the character of his fellow men, for he sold 1lb. of them for £160, enough to purchase a sixteen-acre field in some parts of Essex. This is not a healthy state of affairs either for Tulips, Daffodils, Potatoes, or spotted *Odontoglossums*.

At the present time the Tulip is cheap, but, although they are cheap, they are quite as beautiful, and within the means of the gardener who can afford half-a-crown for a dozen bulbs. The cottager can now have as beautiful a Tulip bed as the prince could in the years of long ago, when *Semper Augustus* sold for 5,500 florins, *Admiral Leiften* for 4,400 florins, &c. But the most curious sale was a root of *The Viceroy*; this cost two lasts of Wheat, four lasts of Rye, four fat oxen, three fat pigs, twelve fat sheep, two hogsheds of wine, four tuns of beer, two tons of butter, one thousand pounds of cheese, one complete bed, one suit of clothes, and one silver beaker. As a matter of fact, none of these varieties would stand the test of competition against any of the bizarres, byblomens, or roses of the present day. The

Tulip, like the *Carnation*, is divided into classes or sections. The bizarres are generally placed first. These have a clear yellow ground, feathered or flamed. What the fanciers term a feathered flower has the colour pencilled round the margin of the petals only. Some varieties, such as *Masterpiece*, are almost black; *Dr. Hardy* has a reddish tint. Some of them have chestnut-red and reddish maroon colours, but all of them have different shades of yellow. The flamed flowers are also marked round the margins, but the centre of the petals are pencilled or "flamed" of the same colour.

The same remarks apply to the byblomens. These have a white ground, and the colours are of different shades of purple, lilac-purple, and a few varieties quite blackish, but the purple tints are there. Roses are quite charming in their purest white ground. Some may almost be described as scarlet, but the colours vary from rose to scarlet, and it is laid on in the same way as in the other classes. "Whence are these colours derived?" someone may ask who is not yet acquainted with Tulip transformations. The Tulip fancier crosses his different varieties of flamed flowers with other flamed varieties; the feather-edged varieties with others, selecting the best both as regards form and colour. The seedlings produced will nearly all be self colours. These are termed "breeders," because in the course of years the self colour will disappear and a white or yellow ground take its place, which will be flamed or feathered. These breeders are not kept unless the base is pure and without stain. The same remark applies to the stamens. When a Tulip takes on its flamed or feathered state it is said to be rectified or broken. The colour of the breeder form will come out in the flame or feather. For instance, a bizarre breeder will have its base yellow, and the colour chestnut, red, or even dark chocolate. The byblomen breeders will have a white base, with various shades of purple, lavender, or even deep rich black-purple. The roses, as they are termed, have a white base, the petals coloured with various shades of rose and rosy scarlet. The Tulip fancier who is also a seedling raiser has the interest kept up in his flowers year by year watching and waiting for their change from the breeder to the rectified form. "How are strains produced?" is another question that may be asked.

It comes about in this wise. The self-coloured or breeder Tulips pass into various hands, and after several years of cultivation they appear in the flamed or feathered state in several collections, but not all of them are of the same standard of excellence, and the rectified flowers take the name of the garden or the individual who produced them, and become Groom's strain or the Stapelford strain accordingly.

The Tulip is sufficiently hardy to grow and thrive in the open garden anywhere in Britain, but to obtain clean blooms of the best quality some protection is needed. The leaves are brittle, and easily injured by hailstorms; the formation of the leaves is such as hold water at their base, and, if the water freezes, damage is done in that way. No flowers show to advantage if the leaves are damaged, and few suffer so much in this respect as the Tulip, for the broad, glaucous leaves are truly handsome. To save the plants in the early stages of their growth from injury, the Tulip fanciers bend iron hoops over the beds, the hoops raised about a foot or 18 inches above the beds, mats or some protecting material being thrown over them on frosty nights or to protect them from hailstorms. The shifts made in some gardens to protect the plants causes much litter from

the protecting material left lying about. It is much better and almost as cheap to use glass lights, and these can be kept on through all the rough spring weather, and are useful to throw off superfluous rain-water as well as protection from severe frosts. Mats or canvas kept over the beds too much have a tendency to weaken the plants.

I have had Tulips planted where they were sheltered from east and north winds, and had not been removed for fifteen years; they were common varieties in clumps, and they never failed to flower freely. Of course, no one would recommend this culture for choice varieties. On the other hand, it is certainly quite unnecessary to make a border as if it were intended to grow prize Grapes. Splendid Tulips can be grown in ordinary garden soil merely by working the ground well to the depth of 18 inches, and it is very desirable that the soil should be exposed to the action of the atmosphere for two or three months before planting.

The best time to plant out Tulip bulbs is about the middle of November or a week or two earlier, time and weather permitting. Some decayed manure should be mixed with the soil at the time of trenching, and at the time of planting decayed fibrous loam should be placed on the surface of the beds to the depth of 4 inches. This will raise them above

the ground level. A good width for the beds is 4 feet, and if there are several beds the alleys between should be 18 inches wide. The outside rows are 3 inches from the edge of the beds, and five more rows are 7 inches asunder. There are seven rows in each bed, and the fanciers plant the bulbs so that the tallest-growing varieties are in the centre of the beds. They are termed first, second, third, and fourth-row flowers. In planting, too, the colours are mixed, a rose, a bybloemen, and bizarre being planted alternately. In planting make a hole to the depth of about 4 inches, place a little river-sand in the bottom of the hole, press in the bulb, and drop a little sand over it. Most of my experience in growing Tulips has been gained in the London district, but I remember discussing this matter some twenty years ago with the late Mr. Barlow of Stakehill House, and he said it was better not to plant out the bulbs until December. He stated that if the bulbs were planted late they started to push out their rootlets at once, and were not so likely to be injured by the cold, wet soil. The root-action in November is sluggish, and as regards the northern districts I would trust to the information one may be enabled to glean from their practical experience. It would be well if some means could be adopted to keep the ground dry by placing over it some material to throw off the rain-

water from the beds previous to planting. The Tulip plant near London will appear above ground early in January in some seasons, and at the latest by the end of that month. If the weather is mild growth is rapid, and the plants certainly should be protected. Glass is far superior to any other form of protection.

When two beds run parallel to each other I drive a row of posts into the ground on each side of the alley. These stand 4 feet 6 inches out of the ground. A rail is nailed on the top. Along the outer sides of the beds there must be another row of posts 3 feet 6 inches out of the ground, and a rail on top. On these rails rest garden frame-lights 6 feet long. This carries the water beyond the beds and keeps the plants dry. Some light tiffany or canvas is nailed to the posts to keep the wind from blowing on the plants or to break the effects of drifting rain or snow. When the Tulip bloom is developing it is easy to shade the glass from hot sunshine; also, in order to get good blooms, I mulch the beds with decayed manure, and it may also be necessary to give water. This should be applied between the rows over the manure, but care should be taken not to wet the foliage. The beauty of a Tulip bed is sadly marred if the foliage is injured.

JAMES DOUGLAS.

#### TULIPA KAUFMANNIANA.

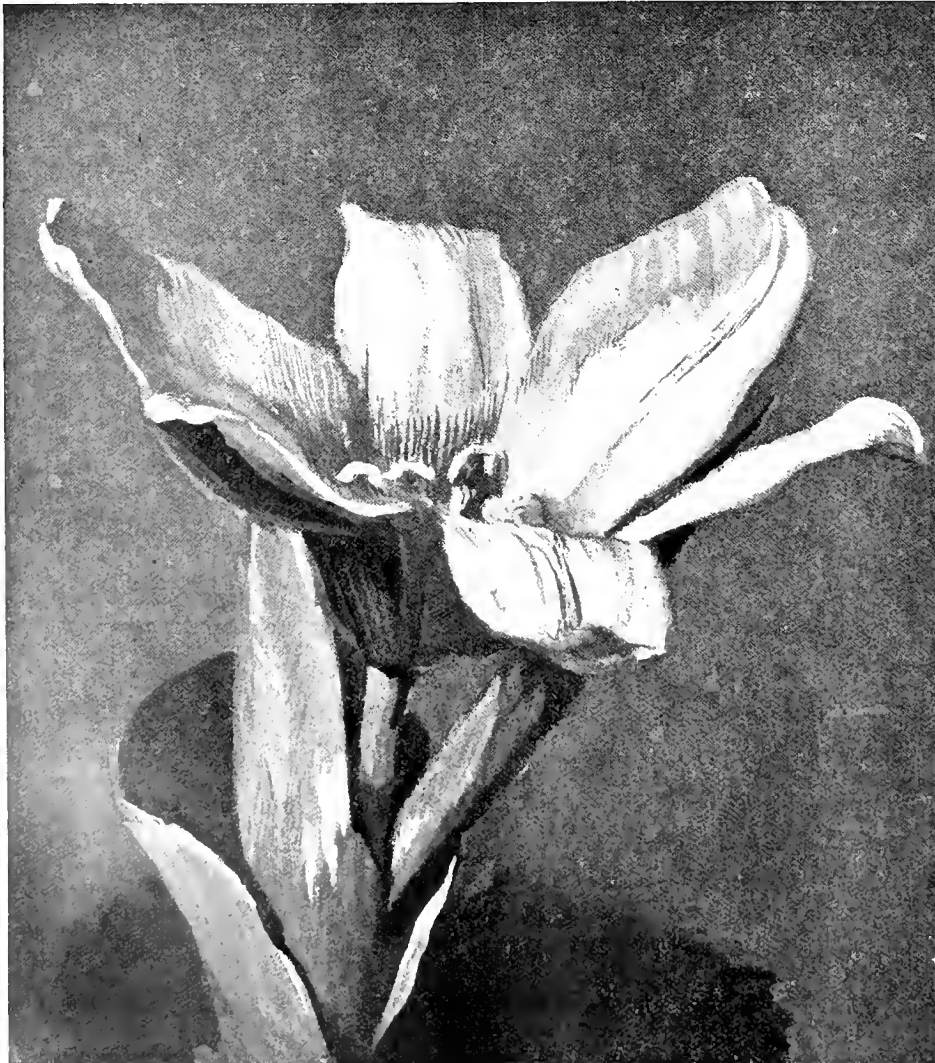
THIS pretty Tulip has buds about 2 inches long, tapering to a point, and externally flamed rather decidedly with carmine or scarlet. The inner segments are white, with an occasional faint line of scarlet on the reverse side. This, however, is only seen as the flowers day by day reach their full size of bud, thus creating an interest from quite an early stage. Presently, when the flowers expand, we see a finely proportioned, creamy white, very substantial-looking blossom, and, with its huge blotch at the base of richest orange, possessing all the beauty of one of the newer Water Lilies, a notion conveyed by the substance of the petals. It is amenable to cultivation, not merely existing, but succeeding and improving with years. The best position is a warm border in sandy loam, or a warm spot in the rock garden. This handsome plant is from Turkestan. No species is more full of promise for the future, and none more worthy of an extended cultivation.

J.

#### THE LAWN.

(Continued from page 183.)

**A**FTER sowing the surface of the land should be well raked with an iron rake, and then rolled several times over with a heavy roller. If the lighter seeds are not well pressed into the soil they are in danger of being blown away by the wind. In laying down a lawn many are under the impression that any ordinary grass seed will answer the purpose. This is a great mistake. Special lawn grass mixtures are prepared by our best seedsmen, and these only should be sown. One pound of this seed to the pole of ground is the recognised quantity to sow. This may appear to many to be too large a quantity for so small an area, but if a good thick growth is desired quickly it is none too much. If the conditions of soil and weather are favourable to the growth of the young grass, it is possible to have the lawn in condition for light use by the end of the summer; but the owner will be well advised not to use it for playing on until the second season. As soon as the young grass



TULIPA KAUFMANNIANA. (Natural size.)

appears above ground a light roller should be drawn over it, and when about 4 inches high it should be cut with the scythe, and not too closely. It is better to cut it the second time also with the scythe; afterwards the lawn mower may be used, but care must be taken during the summer not to cut the young grass too short.

#### MOSS ON LAWNS

is often troublesome. Its presence generally indicates poverty of soil or the absence of proper drainage. Should the latter be the cause it is hopeless to look for improvement other than from effective drainage. If poor condition of the soil is the cause the remedy is easier and less expensive, and consists in raking (or harrowing if the lawn is extensive) as much of the moss from the turf as can be extracted in this way, and dressing the lawn afterwards with the following soil mixture: To one cartload of ordinary rich garden soil add  $\frac{1}{2}$  cwt. of bone-meal, the same of quick-lime, a barrowload of ashes from the burnt refuse heap (or potash in small quantity in some other form), with a light sprinkling of nitrate of soda crushed small, all to be well mixed together a fortnight or three weeks before being used, and applied at the rate of nine cartloads to the acre. Choose a dry day for the work. As soon as the soil has been spread and is moderately dry lawn grass seed at the rate of  $\frac{3}{4}$  lb. to the pole should be sown broadcast over the soil dressing, well raking it in, and afterwards roll with a heavy roller. I have never known this treatment to fail in bringing about a great improvement in mossy and poor lawns, and if annual dressings of this nature are continued for a few years the lawn will be ultimately entirely cleared of moss. From the middle of March to the middle of April is a good time to carry out this work.

#### WEEDS.

Noxious weeds are sure to find their way from time to time into the best and most carefully laid down lawn. Dandelions, Daisies, and Plantains are the most troublesome. The best way of clearing these weeds I have found is to employ boys or women to cut the roots deep down with a strong-bladed knife, and to pull up the Daisies by the roots. It may appear a tedious business, but it is wonderful how soon a large area of land can be cleared of weeds in this way. There is no other method so effective. Various other methods are recommended, such as applying salt or carbolic acid to the cut stem of the Plantain, Dandelion, or Thistle, which are among the most difficult of lawn weeds to eradicate. With regard to Daisies, which are so common and give so much trouble on lawns, it is claimed for a "lawn sand" which is advertised that it will destroy them without injuring the grass. The objection I have to these remedies is that with the application of the former there is danger of burning some of the grass surrounding the stems of these strong weeds, leaving behind a number of brown, ugly spots, which disfigure the lawn for the remainder of the season. In a less degree the same danger applies to the application of lawn sand for the destruction of Daisies, in so far that if a too strong dose is applied, either through accident or ignorance, damage to the grass for a time will ensue; but if applied with care, strictly according to the instructions given, and before the growth is too advanced, this sand will undoubtedly thin out the Daisies, and cause only a temporary and harmless discolouration of the grass.

#### WATERING.

If the weather is exceptionally dry in early summer provision should be made occasionally



THE SUGAR MAPLE WOODS IN SPRING (AMERICA).

to water the young grass, or there is a danger that some of the lighter seeds may not germinate freely. It sometimes happens that the seeds were not so evenly distributed at sowing time as they ought to have been. This will at once be apparent when the seeds begin to grow, and on any vacant or thinly-covered spaces sow more seeds, and cover them lightly with a sprinkling of soil well pressed down.

#### MOWING THE LAWN.

The growth of the young grass is often hampered and weakened by the use of a machine not in proper condition. If the knives are not properly adjusted to the plate the young grass is not cut off, but torn off, leaving the grass bruised, and not infrequently pulling the young plants up by the roots. It is most painful to see the harm frequently done to the lawn because of workers not understanding how to manage the machine, thus leaving the surface rough and untidy as compared with that cut by a machine in good condition and in the hands of a competent man.

OWEN THOMAS.

## TREES AND SHRUBS.

### SOME LITTLE-KNOWN ORNAMENTAL WILLOWS.

**I**N addition to the common red and yellow-barked Willows, which are so much appreciated for the beauty of their brightly coloured stems in winter, there are others equally interesting if not so highly ornamental, and the undermentioned species and varieties are worthy of inclusion in any collection of hardy trees and shrubs. To produce the best effects with these Willows it is, of course, necessary to mass them in quantity, but where a want of sufficient space or other reason prevents this, excellent results may be obtained from single specimens or small groups, especially when these are planted at the edges of streams, lakes, &c., and, as is well known, Willows revel in a heavy, wet soil. To retain the pleasing colour of the bark it is necessary that the shoots receive an annual pruning, and this should be done about the end of March or beginning of April, cutting the plants clean to the base, and thereby inducing them to form a sturdy growth. If it is desired to increase the stock cuttings between 9 inches and

1 foot in length can be made of the prunings, and they will root readily if firmly inserted in a shady border.

*Salix daphnoides* (the Violet Willow).—The twigs or branches of this Willow are a very pleasing and distinct colour, being pale red overlaid with a glaucous bloom. The foliage is also glaucous, and if the stems are pruned annually, as advised above, this forms a neat shrub about 4 feet in height.

*S. grandiflora moschata*.—A striking variety when used in quantity, the bark being a very deep purple or almost black.

*S. babylonica annularis*.—A most interesting shrub, the foliage being peculiarly turned back so that each leaf forms a ring. This is a small-growing variety, and though of no value for winter colouring, it merits extended cultivation.

*S. purpurea* has reddish purple stems, which are very noticeable when massed.

*S. laurina* is a strong-growing Willow, with black stems reaching a height of fully 7 feet in a season.

*S. incana* (the Rosemary-leaved Willow, sometimes called *rosmarinifolia*).—This is undoubtedly one of the best Willows we have, and if only partially pruned soon forms a spreading, large bush. The leaves are green above and silvery on the under side, and when gently stirred by the wind in summer have a most pleasing effect. Though the bark is not very conspicuous, excellent results are obtained from the foliage by planting in groups on the water's edge, especially by large lakes. There are, no doubt, other equally interesting Willows, but the above are a few that can be recommended to planters of ornamental shrubs.

*Elstree*.

A. E. THATCHER.

### THE SUGAR MAPLE.

**I**N America we are proud of our aboriginal forests; we are proud of the large size of the trees and of their fine proportions; we are proud also of the numerous species, their wide range, and their thrifty growth. Yet Americans in general are not so proud of these things as they ought to be, I think. At least it seems to me they are often inordinately vain of much less notable matters. Amongst our noble species of native trees perhaps none ranks higher than the Sugar Maple. Through the North-Eastern States and Eastern Canada this is the most important and characteristic species. In many places it appears in large areas as almost pure woods, and in many places these Maple woods are preserved and encouraged for the annual yield of Maple sap. The sap is boiled down and made into syrup or sugar. The sugar has the advantage of shipping better to market, and plays a large

part therefore in commercial enterprises. The desirable product, however, is the syrup, which is much prized by all who know it in its purity. For many years the demand has greatly exceeded the supply, and it seems probable that such will be the case for many years to come. The illustration shows a "sugar bush" or "sugar orchard" in the spring, at the latter end of the sap-gathering season. The snow has just disappeared, the sap has nearly ceased to run, and the sap buckets will soon be put away for the summer.

F. A. WAUGH.

Department of Horticulture, Massachusetts, U.S.A.

## AN HOUR WITH THE HOLLYHOCK.

### PROPAGATION.

WE now proceed to offer a few remarks on propagation. We know of but four modes of propagating the Hollyhock: (1) By seed; (2) by cuttings; (3) by dividing the roots; and (4) by grafting. The first mode has been already discussed; it remains for us to consider the others. Propagation by cuttings is the best mode of obtaining good plants, and the practice may be carried on from March to October. Most of the old plants give an abundance of young shoots early in spring, and so soon as these become a little hard they may be cut off close to the stem, leaving about three of the best shoots for slower spikes. Place three or four cuttings around a 5-inch pot in a rather light sandy soil; plunge them in a close frame, where in a few weeks they will have formed new leaves and roots and may be potted off, each in a separate 4-inch pot. As fresh shoots form on the old plants they may be treated similarly up to midsummer, after which period we would prefer leaving the wood to become quite hard before making the cuttings. In the latter case a single eye is sufficient to make a plant; but the wood-shoots and not the flower-shoots should be chosen. It sometimes happens that the eyes developed at the base of a main spike produce wood-shoots, but they more usually produce flower-shoots; the latter take root and form plants, but are not of the best description. Cuttings made from the single eyes may be cut obliquely at the lower end and completely buried beneath the soil, leaving the foot-stalk only protruding above; they should then be placed in a closed frame and the eyes quickly push through the soil and form stout, healthy plants. These when rooted may also be transferred to single pots, there to await transplantation in autumn or spring, as before recommended.

Propagation by division is best carried out in autumn, immediately that the flowering is over. A large, well-ordered plant may sometimes be divided into several, but in general three or four is a more advantageous number. Nothing certainly is gained by breaking the old plants into too many pieces; every separate part should carry with it a good share of roots. Seedlings and others that may bloom late cannot be divided till the spring. March is perhaps the best time, and the fragments, if not broken too fine, will flower well during the first autumn.

Propagation by grafting may be performed to the greatest advantage in spring. Dig up any old plants not valued for blooming, and cut off the fleshy roots about the thickness of the little finger into 1 inch or 2 inch lengths. On these graft the young shoots, inserting the place of junction beneath the soil, giving to each a separate pot, and placing them in a

close cold frame. This mode of propagation we describe, but do not recommend. Plants raised from cuttings or seed are certainly preferable.

It is but the few who grow for exhibition, but they are often the most ardent cultivators, and we must say a few words on this subject ere we conclude.

There are two modes of exhibiting Hollyhocks, by single flowers and spikes. Some cultivators have advocated the withdrawal of prizes for single flowers, and depending on spikes alone. It is freely admitted that the exhibition of spikes creates a great display, and affords a truer idea of the nature and properties of the flower. On this ground, then, we admit the desirableness of encouraging this mode of exhibiting, but doubt whether the entire exclusion of single flowers will not prevent many amateurs from entering the list as competitors. To exhibit single flowers does little damage to the garden at home, and they are easily conveyed to the place of exhibition. To exhibit spikes requires too great a sacrifice where a few plants only are grown; and, moreover, they form, however, closely stowed away, a somewhat cumbersome package. We know that many amateurs derive as much pleasure from the gratification they afford others by their pursuit, as in marking the brilliancy of colour and symmetry of form, or inhaling the sweets of their favourite flowers. The most emulous of such would pause ere he cut seven spikes of his finest kinds from a limited collection. He could not reconcile himself to behold tarnished in a day what would have given pleasure for a lengthened period had the spikes been allowed to remain on the plants. We think, then, there should be two classes, one for spikes and one for single flowers. Make the former the more valuable prize, as it deserves to be, but do not exclude the latter.

The spikes exhibited usually vary in height from 2 feet to 4 feet. The flowers near the base of the stem are generally the finest (although this depends in some measure on the state of the weather in which they are formed and expanded), and consequently the aim should be to preserve such. To this end all lateral flower-spikes should be destroyed, and the top cut off the main about 4 feet from the lowest bud, at the time this expands that the flowers may close over the top, and the spike look complete. This, which is called "crowning" the spikes, is most essential when cultivating for exhibition. It is an operation of some nicety; not that it is difficult to crown the spikes but difficult so to manage them that they are in perfection on a given day. Practice is the best guide; indeed, the end can only be obtained with certainty by the best considered practice.

By shading, the greater part of the spike may be kept in a showable condition for ten days or a fortnight. In choosing for exhibition, whether spikes or single flowers, we should be guided by the standard previously laid down; the nearer the flowers approach to that the more perfect should we consider our stand. It may not be necessary for the mere cultivator for amusement to dive so deep into the science of floriculture; this, of course, is a matter of choice, but the exhibitor should certainly obtain a clear conception of what constitutes a good flower before he enters the field of competition.

The Hollyhock had, perhaps, scarcely been exhibited in its grandest state until recently, owing to the Dahlia shows at which it had usually figured falling behind the period of its greatest beauty. To those, however, who witnessed the exhibition at the Surrey

Zoological Gardens, on the 22nd of August last year, nothing need be said in its praise as a stage flower. The beautiful columns of brilliant and well-contrasted colours, relieved by the quite protrusion of numberless small green leaves, formed a picture which a Baptiste or a Lance might have rejoiced to look upon and longed to copy. And while listening to the opinions of various amateur and professional cultivators as to the result of this first attempt at a Hollyhock show, one pronouncing this flower to equal the Tulip in brilliancy and beauty, another extolling the richness, variety, and quantity of colour presented to the eye, all agreed that the attempt was decidedly successful, and that the Hollyhock would henceforth rank as a first-class exhibition plant.

W. PAUL, F.L.S.

(To be continued.)

## THE FLOWER GARDEN.

### A BED OF SALPIGLOSSIS.

SALPIGLOSSIS SINUATA, otherwise known as *S. variabilis*, from the variable colour of the flowers, is a member of the Solanum family, closely allied to the *Petunia*, and has similarly hairy and somewhat sticky stems. It will not grow quite of itself like Sunflowers and Geraniums, while the beautiful colours, some of them quite impossible to describe at all accurately, unless we include them under the modern term "art shades," are such as do not appeal to those whose taste in the colour of flowers has not been educated. Their large pencilled, funnel-shaped flowers are sometimes compared, not inaptly, to *Alströmérias*. The ordinary varieties of *Salpiglossis* grow about 2 feet high; but there is a dwarf bedding sort which grows from 1 foot to 1½ feet only, though it is not to be preferred even for bedding purposes. There is a distinct variety called *S. variabilis superbissima*, which forms only one leading stem, and that a stout one, 2 feet high and nearly as large at the base as one's finger, with the flowers thickly clustered round it, especially on the upper part. They are of varied colours, but all veined with gold. The older *S. variabilis* is of a much more branching habit and more slender. There are several named sorts of very beautiful colours, most of them veined with gold. The flowers have a rather long throat, and are funnel-shaped, as stated above, while in the flowers of the variety *superbissima* the throat is wide open and short. If this latter variety is grown, its stout unbranched central stems render them unsuitable for pegging down, as *Petunias* are often treated, while their compact growth necessitates planting them more closely together. Whereas 7 inches or 8 inches would be about the best distance for this variety, 9 inches or 10 inches, or even 1 foot, would be a better distance for the *S. variabilis* if grown upright, while 1½ feet would not be too much if they are going to be pegged down. In the latter case the bed can, with a little management, be nicely covered all over, especially if a few reserve plants are kept in pots for putting in any thin places. But with plants 2 feet high, if they are planted close enough together to hide the soil, many of the side shoots and lower blossoms will not have the opportunity to show to advantage. Hence, if grown upright, it is a good plan to arrange the bed after the manner of a bed of *Fuchsias* or other tall plants, 1½ feet to 2 feet apart, and cover the ground between with some dwarf or creeping plants. *Sanvitalia procumbens* is a creeping plant, with yellow Daisy-like flowers the size of a shilling and crimson-brown centres. It blooms profusely all the summer, and forms a good setting for the *Salpiglossis*, harmonising well with them, as so many of the varieties are golden veined, and sometimes entirely golden. It need hardly be added that sticks must be put to them if it is desired that the upright position should be maintained.

Whether the older or newer sort is grown, it is of much more interest to get a packet of mixed seed, as we never know then what we are going to get. If obtained from a nurseryman with a specially good strain, some very fine varieties will be obtained. It is a half-hardy annual, and should be sown in gentle heat in March, or in a cold frame in April. The seedlings should be pricked out when large enough to handle into some good sandy soil in pans or boxes, and kept under glass till the end of May, when they should be gradually hardened off, always remembering that plants, even out of a so-called cold frame—which often gets extremely hot in May—suffer very much if put straight out into the sunshine in the open. They should always be set in complete shade for a day or two, and if a wet or damp day comes conveniently for the purpose all the better.

The *Salpiglossis* is particular as to soil and situation. One year I had a bed of them in a shady position, and the soil was a wet one and of close texture. The plants seemed to grow very well for a time, but first one plant and then another withered away, and even those that survived long enough to bloom were not safe, for one after another suddenly became limp and

*Salpiglossis* this is especially necessary, as we can never be sure one or two will not die, even in the most favourable positions. ALGER PETTS.

## CARNATIONS IN THE TOWN GARDEN.

(Continued from page 180.)

CONSIDER March to be the best month for planting Carnations in the town garden. If the soil has been dug and manured in the autumn, and dug again in the spring, it will be in good condition by March. Choose dry weather for planting, for there is no danger of the soil being too dry so early in the year. It is a bad plan to plant when the soil is wet, for it is then impossible to work the latter well among the roots, and this is essential. Put the plants in the ground so deeply that they will not sway about from the base or "collar," as it is called. If they are planted too shallow they never take firm hold of the ground, and consequently do not grow as well as they

An exceptionally wet winter might cause the loss of nearly all the old plants, or at least so cripple them as to render them next to useless. In most town gardens there is not sufficient room to devote a whole border to Carnations, but where this can be done I should certainly advise it. Sussoping the borders to be devoted chiefly to herbaceous perennials, the Carnations should be planted in small clumps or groups at intervals; they ought not to be planted singly, dotted about, or in lines. Six plants make a pretty little clump, and if several clumps are arranged in an irregular fashion along the border they will be seen at their best. Restrict each clump to one variety; do not mix the colours indiscriminately—make one clump of a red variety, another of a white, and so on. If this is done the effect is much more pleasing than if differently-coloured varieties are planted in the same clump: then each loses its individuality and makes an inharmonious whole.

### SUMMER TREATMENT.

The first matter to be attended to will be the important one of weeding. Where everything is favourable to plant growth, *e.g.*, in well-tilled country gardens, Carnations often grow well

whether the weeds are destroyed or not, but in the town garden things are different; the plants must be under no disadvantages from which it is possible to free them easily, and among these may be included weeds. It is an easy matter to pull them up, especially if a day is chosen when the soil is moist; they come up much more easily then. The great thing is to begin weeding early, before the weeds come into flower; once they have flowered and seeds have ripened and fallen, the weeds have gained an advantage, and in a week or two dozens of tiny green plants will appear where only one or two grew before. Weeds rob the soil of nourishment, therefore they must be rigorously destroyed, and especially in the town garden, where the supply of plant food is so limited. Another point worth mentioning is the good that is done by keeping the surface of the ground loose; this is especially beneficial in dry weather, for it prevents the escape of moisture, and so directly benefits the plants. Perhaps most important of all is a mulch of manure when the buds are showing; it should be placed in and around the clumps of plants. It keeps the roots moist, stimulates growth, and improves the flowers. Staking will need attention also, but this is quite a simple operation now, since the introduction of improved stakes. These are made of twisted wire, and the Carnation stems should be intertwined; tying is hardly necessary. These stakes should be painted sage green, and should not project beyond the top of the plant, neither should they be too short to support it properly. They are of neat appearance, and a great improvement upon the old wooden stakes and raffia.

Watering is, of course, very important, and all who value their plants will attend to them carefully in this respect. If the summer is dry the borders in a town garden generally dry quickly; so care must be taken that the plants do not suffer from want of water. Evening is a good time to water them, for then the border becomes thoroughly moistened. If the watering is done during the day some of the moisture evaporates, instead of reaching and benefiting the roots. Never let the border become dry or the plants will certainly suffer; they will become stunted, and the flowers will be disappointing. The carrying out of these cultural details means much more to Carnations in an urban garden than to those in the country, for they must be aided and encouraged in every possible way.

### VARIETIES.

It would be useless to give a long list of varieties of Carnations for the town garden; the best



NEW WHITE CARNATION THE "BRIDE" IN SHALLOW BENCHES IN A NEW JERSEY NURSERY.

gradually dried up, until by the end of August not a dozen plants remained alive on the bed. A friend of mine had an experience with them almost as bad in a somewhat similar soil, though in a sunnier situation. The first necessity for their successful culture is a sunny position, and the second is a light, rich, sandy loam. Though they need a good soil, yet it must not be full of fresh manure, as that seems especially fatal to them. If some thoroughly rotted manure is not handy, some old Marrow or Cucumber bed should be well mixed with the soil, and if this is not to be obtained, it is better not to manure the bed at all. The bed should be well in bloom by the end of June, and in its full beauty before the end of July, and it will last throughout July and August, and in a favourable season through most of September. They are admirably adapted for cutting, but if wanted for this purpose it would be better to have a bed of them in the reserve, or cut flower, garden. It is well with all summer beds to have one or two plants of the same thing grown in pots to make good any casualties on the bed, and with

otherwise would; if the base is deeply buried the roots will be too far beneath the surface, and air will not reach them. It is not necessary to cover any of the leaves; if the basal ones are partially covered the plant will be deep enough. Make the soil fairly firm about the roots, either with the hand or with the handle of the trowel used in planting. Carnations root better in soil that is made comparatively firm. They do not require a very rich soil; in this they make a vigorous but soft growth, and are of little use the next year. If, however, the growth of the plants is harder, they may be kept for another season's flowering. In advising the admixture of manure, I had in mind the kind of border usually found in a town garden, and which certainly benefits by dressings of manure. I might mention here that one should never rely altogether upon plants that have bloomed once for the following season's display, as during the winter some of them are almost sure to die off. They do not do so to the same extent as young plants, but it is always advisable to propagate every year to prevent disappointing results.

plan is for the owner to try a number of different ones, and he will soon find out by experience which are the most suitable for the conditions of soil and surroundings that prevail in his garden. The following varieties have been selected because of their hardy constitution and free-flowering habit; they are all self-coloured. The reader can obtain a list of good fancy varieties from any Carnation grower if he wishes to grow these, and there is no reason why some of them, at any rate, should not be grown successfully in the town garden. It would be well, however, to begin with those mentioned.

*White*.—George Macquay, Gloire de Nancy, and White Star.

*Red*.—The Old Clove, Paul Engleheart (a dwarf variety of it), and Uriah Pike.

*Scarlet*.—Dundee Scarlet and Quentin Durward.

*Salmon-pink*.—Raby Castle.

*Dark rose*.—Francis Wellesley.

*Yellow*.—Miss Audrey Campbell.

#### PROPAGATION.

It is not necessary here to give full details as to the propagation of Carnations, for that has been dealt with on other occasions. The shoots should be layered early, say, in late July or early August. The earlier they are rooted the better plants will they make. In the month of October it is usual to remove the rooted layers from the old plants, and to transplant them to their permanent quarters, *i.e.*, in the border where they are to flower. But here again the method of procedure must be modified in the case of Carnations in the town garden. Instead of transplanting the layers to another border prepared for them, they must be potted up into small pots in a soil containing a fair amount of leaf-soil and placed in a garden frame, there to remain during the winter; in fact, until March, when they may be planted out. Instead of being put in small pots, the rooted layers may be planted in the frame in which a bed of light soil some 9 inches deep has been prepared. There the plantlets remain until planting out time in March. Personally, I much prefer potting up the runners, for the condition of the soil during winter can then be regulated more satisfactorily than when they are planted out. Once the bed of soil gets wet—as it is likely to do in the middle of winter—it is impossible to get it dry again before the weather improves, and meanwhile some of the plants might die. It is astonishing how little water Carnations in pots need during winter. I have had them in a cold frame throughout the winter months, and have given them no water at all for weeks, yet the soil still remained moist. There would seem to be no doubt about the wisdom of wintering the rooted layers in a cold frame so far as Carnation culture in the town garden is concerned. They are then safe from damp, which, together with the danger of their freezing while water is still in the axils of the leaves, is the chief difficulty in keeping them until the spring. A cold frame is very cheap, yet it is indispensable to those who wish to propagate their own Carnations instead of annually buying them. It is a pity that so many do the latter when layering is so simple. The initial cost of the frame is saved over and over again by not having to purchase plants.

Last year I tried another method of keeping the layers through the winter, but we had such an exceptionally wet season that the plan can hardly be said to have had a fair trial. Instead of removing the layers from the parent plants in October I left them alone, thinking that with the assistance they derived from the old plants they would be able

better to withstand the winter's cold and wet. A good many of them, however, lost their centres—their "hearts," as gardeners say—and are practically worthless, while the remainder look far from happy. When I contrast these with those that have wintered snugly in the cold frame, I can have no hesitation in saying that the latter is a *sine quâ non* to the successful culture of Carnation layers during the winter months.

#### PROPAGATION BY SEED.

Raising Carnations from seed is a method that appeals to many, and particularly to the town gardener. There is always a delightful uncertainty about the results to be obtained from a packet of seeds, and, providing one obtains seeds from a reliable source, a good percentage of double

generally practised is as already stated—*i.e.*, sow the seed in April and grow on the seedlings during summer, finally planting them out in September. If, however, the seed is sown in January in a warm house, and the seedlings are encouraged to grow fairly quickly in an intermediate temperature (not higher than 60°, or the tiny plants will be weakened), so as to make good plants for placing out of doors in May, then they will bloom the same year a little later than those propagated the previous year. This plan of flowering the plants the same year, treating them as annuals, has much to recommend it to the town gardener, for it does away with the necessity of keeping the plants through the winter. There is certainly more interest attached to the raising of Carnations from seed than from layers. One always knows what to expect from the latter, while seedlings are a continual source of interest and expectation, for one never knows what they will produce. It is important to buy good seed, however, otherwise the results will probably be disappointing. The only thing that may prevent the town gardener from adopting the plan of culture above described is the want of a heated greenhouse or frame. Without either it is impossible to get the seedlings along quickly enough. Still, most urban gardeners possess a small greenhouse, and I am sure a small portion of it could not be turned to better use than by raising seedling Carnations; in late summer and autumn they will be invaluable for cutting. In a garden within a very few miles of Charing Cross hundreds of plants are grown in this way, and the gardener is able to gather hundreds of blooms for house decoration. One of our best Carnation growers states that plants flowering from seed sown in March of the previous year will produce from 100 to 150 blooms each; one could hardly expect to gather so many from plants flowering the first year from seed; but they, too, give a very satisfactory harvest. Among seedlings there is always a certain percentage of single flowers; but supposing the Carnations to be required for home decoration only, the singles do as well as the doubles; in fact, when arranged with them, they improve rather than detract from the display. T. H. H.

(To be continued.)

#### NEW WHITE CARNATION —THE BRIDE.

I SEND you two photographs of a new white Carnation, showing results under glass in America. Mr. J. N. May of Summit, New Jersey, is the distributor of this variety. It has received a number of awards from the principal horticultural societies in the States. It is very free-blooming, and the white is quite pure. The individual flower is 3 inches to 3½ inches in diameter, and the stem 14 inches to 16 inches long. It has a vigorous habit, as will be noticed by the plants growing in the shallow benches. D.

#### AMARYLLIS BELLADONNA IN GUERNSEY.

WE are indebted to Mr. H. C. Smith, Caledonia Nursery, Guernsey, for the photograph reproduced in the accompanying illustration. Mr. Smith writes that "it represents part of a bed of *Amaryllis Belladonna purpurascens maxima* in the Caledonia Nursery last autumn. The bed measured 36 feet by 18 feet, and when the



FLOWERS OF THE BRIDE CARNATION. (Much reduced.)

flowers in a great variety of colours will be had. Seed should be sown in April in a greenhouse or cold frame, and preferably on a hot-bed. Carefully attend to the seedlings as they progress by repotting, watering, and gradually inuring them to the open air. By the month of September the plants will be ready either for planting in the border where they are to remain till flowering time, or they may be kept in pots throughout the winter and planted in their permanent quarters in March. If they have made good growth and are vigorous, and the garden soil is not exceptionally heavy and likely to become soddened, the plants may be put at once in the border; but if they are rather weakly and the soil is not congenial, keep them in the cold frame until March. Although it is not usual to grow border Carnations so that they flower the same year in which seed is sown, they can be made to do so by sowing early. The method

photograph was taken there were over 1,000 spikes in bloom and bud. This form is quite the best we have ever grown, and will give satisfactory results where the ordinary forms of the Belladonna Lily are a failure."

**NOTES ON HARDY PLANTS.**

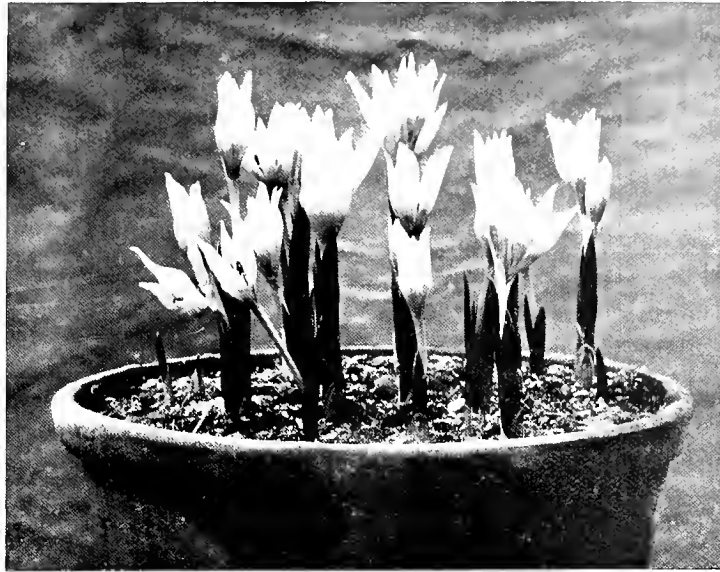
**COLCHICUM HYDROPHILUM.**

**A** BEAUTIFUL little plant belonging to the spring-flowering section of the genus, in which the flowers and leaves appear at the same time. The latter, however, are not fully developed for some time after the flowers are over and eventually attain a length of 6 inches and a width of over 1 inch. The corms are about the size of a small Walnut, chestnut brown in colour, and produce from three to five flowers each. These are 3 inches to 4 inches high, longer than the leaves at the time of flowering, and of a bright rose colour. Corms of this plant were received from Asia Minor in 1898, and flowered in February, 1899. It is found on the Taurus Mountains on both the north and south sides, but not at a lower elevation than 3,250 feet above sea level, extending upwards to a height of 6,500 feet. It grows in places where it receives an abundance of water, produced by the melting snow, during the flowering and growing period. From July to October the same position is dry, and during this period the corms are thoroughly ripened off. A very useful plant for the alpine house and of easy culture in sandy loam, it is quite hardy in the border, but is more suitable for the former purpose, or for a corner in the rock garden.

W. IRVING.

**ERANTHIS CILICICUS.**

THIS is a much finer form than the old common Winter Aconite (*Erantthis hyemalis*), with larger



COLCHICUM HYDROPHILUM IN THE ALPINE HOUSE AT KEW.

finely cut leafage, purplish stem, and larger yellow flowers. This species generally flowers a little later than the common Winter Aconite.

**DIVERSITY IN SEEDLINGS OF CAMPANULA BARALLIERII.**

THOUGH this *Campanula* is supposed by some to be a synonym of *C. fragilis*, it is yet so distinct in foliage and in the colour of its flowers as to justify the bestowal of a distinctive name, and there is a remarkable diversity of character in some of its progeny obtained from seeds. Some favour the parent, some revert to *fragilis*, some partake of the downy character of growth of *Mayii*, some are much more characteristically pubescent, while a very few have the variegated character. The variety in the seedlings is delightful, and I am anticipating the blooming time with considerable interest. The one drawback is that there are so many seedlings that they are grown in my cold house to the discomfort of other things. I think that if anyone will undertake during the coming summer to cross-fertilise *C. Mayii* and *C. Barallierii* that a very interesting progeny might result. They are quite hardy plants, and, being

evergreen, have an interest during winter, and they are quite at home in a cold house. At the same time they well repay a generous treatment.

R. DEAN.

**IRIS UNGUICULARIS.**

(*IRIS STYLOSA*.)

AN evergreen Iris, with long linear leaves and showy flowers. If planted in a sunny spot against a south, east, or west wall and in well-drained soil it will produce large showy flowers from December till April. There are several forms, all of which are well worth growing. The type has rather long, broad foliage, and large, pale blue flowers, the falls slightly marked white. *I. unguicularis lilacinum* has paler flowers and white netted falls. *I. unguicularis speciosa* has shorter and more narrow foliage, with later deep blue flowers. *I. unguicularis angustifolia* has narrow, deep green foliage and pale blue flowers, and closely allied to this is *Iris cretensis*, with grassy-like, glaucous foliage, and large showy flowers only just now commencing to show. In colour they are similar to the form *speciosa*. *I. unguicularis alba* is a form, or rather there are two forms, the one with creamy white flowers, the other with just a tinge of lilac.

**GALANTHUS NIVALIS VAR. SCHARLOKI.**

THIS form of our common Snowdrop is at present in full flower, and is noticeable among others mainly by its divided spathes, although on closer observation a further distinction is observable in the greenish markings near the apices of the small flowers. It is one of the most singular of Snowdrops in respect to its large, leafy, and divided spathe, which often recurves, and then looks like a pair of horns raised above the flowers. Anyone can recognise it among other Snowdrops, and its interest is not lessened by the knowledge that it is a natural form and not one raised in a garden. Its history is well known. It was found in some copses in the valley of the Nahe, in Western Prussia, a tributary of the Rhine, by Herr Julius Scharlok, a careful botanist, and named in his honour in 1868 by Professor Caspary of Königsberg. It has mainly been distributed by Mr. James Allen,



THE BELLADONNA LILY (*AMARYLLIS BELLADONNA* VARIETY) IN JERSEY.

I believe, but it is not as yet plentiful even among the few connoisseurs of the Snowdrop. From the first appearance of the flower above the soil this is an interesting *Galanthus*. On account of the division of the leafy spathe the flowers are not protected on piercing through the soil in the same way as those of most other Snowdrops, and the blossom appears like a small white ball. It gradually develops until the green markings on the outside and the divided spathes become more apparent. It does not strike one as a well-formed *Galanthus* in its shape, but it is undoubtedly interesting as one of the few abnormalities among the plants of a favourite genus. I have a nice clump of it now, and one can find about it something to study in the Snowdrop season. Mr. James Allen has raised several seedlings from *G. n. Scharloki*, but none of these is so pretty as the original. They are remarkable, however, for the variation from the parent they show. Some have the divided spathe, and some the green markings on the exterior, but a few are malformed. They do not succeed with me so well as the typical *Scharloki*. S. ARNOTT.

## USES OF BRITISH PLANTS.

### SOLANACEÆ.

**H**ENBANE (*Hyoscyamus niger*).—This, with opium, &c., formed a drug called "Dwale" in the Middle Ages to induce sleep for operations. The seeds were heated on a hot tile and the vapour inhaled in order "to slay the worms in the teeth." The plant is in the pharmacopœia, being valuable for its narcotic properties. It is a plant with a heavy disagreeable odour, clammy to the touch, from its glandular hairs. It bears dull yellow and dark veined, bell-shaped corollas. The capsule bursts by a lid falling off. The roots have been eaten instead of Parsnips with serious results.

Bittersweet, or Woody Nightshade (*Solanum Dulcamara*).—This common shrub scrambling over hedges is well known by its clusters of purple flowers and scarlet berries. The name "Bittersweet" is given from the taste of the bark, which is bitter, but followed by a sweet flavour. The shoots dried are used in British medicine for certain cutaneous complaints. The berries have proved poisonous to a certain degree to children. It was called "Woody Nightshade" by the old herbalists to distinguish it from the "Deadly Nightshade."

Garden Nightshade (*Solanum nigrum*).—This is a small herb with white flowers and purple berries. Like the last it has been used for the same purpose. The berries are more or less injurious, especially to children, but are often eaten by adults with impunity, especially when quite ripe, as the poisonous principle is chiefly associated with all green parts.

Dwale, or Belladonna (*Atropa Belladonna*).—A shrub some 3 feet in height, bearing dingy purple, bell-like flowers and smooth black berries when ripe. These are intensely sweet, and have proved to be fatal to children and others who have eaten them. The dried leaves form the drug of our pharmacopœia. They are strongly narcotic. It is an anodyne, and used for allaying neuralgia. The name Belladonna has its origin in the use as a cosmetic by Italian ladies, or perhaps for enlarging the pupil of the eye, a property possessed by the juice.

The Mandrake, a foreign species of *Atropa* (*A. Mandragora*), was used in Pliny's day as an anæsthetic for operations. The sleeping potion of Juliet was a preparation from this plant, perhaps the same as the Mandrake wine of the Ancients.

### SCROPHULARINEÆ.

Mullein (*Verbascum Thapsus*).—This plant has a tall stem, with very woolly leaves, and a dense spike of yellow flowers. The leaves boiled in milk have been strongly recommended as an emollient for coughs. It was formerly called Candela, because it was a plant "whereof is made a manner of Lynke, if it be tallowed," as it is said in the "Great Herbal." The down upon the leaves consists of stellate hairs, which form a sort of felt and

makes a good tinder when dry. It was called Hag-taper, being supposed to be the witches' broom upon which they rode through the air, but the true derivation appears to be from *haga*, a "hedge," and not *packe*, a "witch," with *taper*, a "candle."

Foxglove (*Digitalis purpurea*).—This is dangerously poisonous, having a strong action upon the heart. It is used medicinally for that purpose, but ignorant people have been poisoned by making a tea of the leaves.

Figwort (*Scrophularia nodosa* and *S. aquatica*).—These plants were formerly used as a remedy for scrofula, hence is derived the name of the family. They are—as so many of this order—emetic and purgative. It should be regarded with suspicion.

Cow-wheat (*Melampyrum pratense*).—This is said to afford good fodder for cattle. According to Linnæus the butter of cows fed upon it is remarkably rich and of a deep yellow colour. The term "Wheat" is said to have been given to it because of its sudden appearance among Corn on land being cleared from a coppice where it had grown. Cows and sheep are very fond of it. The Latin name signifies "black wheat."

Ivy-leaved Toad-flax (*Linaria cymbalaria*).—This now common plant was introduced from the Continent. It is eaten as a salad, having a hot taste, like that of Cress, hence it has been thought to have anti-scorbutic properties.

Speedwell (*Veronica officinalis*) was formerly used as a tea, an old Danish botanist, Simon Paulli, contending that it was the true Tea of China!

### LENTIBULARINEÆ.

Butter-wort (*Pinquicula vulgaris*).—This plant is common in wet places, especially in the West of England. Its leaves form a rosette, are spoon-shaped, and covered with glands, which catch insects and consume the nitrogenous substances from them. The Latin name, Gerarde says, refers to the "fatnes or fulnes of the leafe." The juice, he adds, was rubbed on cracked udders of cows, as it is done in Sweden. Linnæus states that in northern regions the fresh leaves are put into the reindeer's milk and strained. After a day or two it acquires a consistence and tenacity; the whey and the cream do not separate. It thus forms a favourite food in the north of Sweden. It does not act in the same manner as cow's milk.

### VERBENACEÆ.

Vervain (*Verbena officinalis*).—This plant was considered to have many virtues of old, but it has now fallen into disuse, as having none. It was called Hierobotana, or the "sacred plant." Pliny tells us that the messenger sent to an enemy to demand the restoration of property was called *verbenarius*, for he carried a spray of Vervain, which rendered him inviolable. It was also used for cleansing the table of Jupiter on the occasion of the feasts of that god. Houses were purified with it. As a drug it was much valued in the fourteenth century, as, e.g., the powder for stanching blood and healing wounds. The following is a curious test: "If a man lie sick, to know whether he shall live or die. Take Vervain in thy right hand, and take his right hand in thine; and let the herb be between, so that he does not know it. Ask him how he fareth and how he hopeth of himself. If he say he shall live and fare well, for certain then he shall live and fare well. But if he say he hopeth of no life, know well for certain that he shall die of that evil."

### LABIATÆ.

No member of this easily recognised family is poisonous, but the majority are characterised by strong scents, due to the presence of essential oils located in glandular hairs upon the foliage, &c. This imparts the odours peculiar to different species, as Peppermint, Thyme, Sage, Lavender, Patchouli, &c.

Spear-mint (*Mentha viridis*).—This is the cultivated garden Mint, and only known as an escape, but is believed to be derived from the wild Horse Mint (*M. sylvestris*), only indigenous in the South of England. It was much cultivated by the Romans and other Mediterranean nations.

Peppermint (*M. Piperita*).—This is also regarded as a cultivated form of Water-mint (*M. aquatica*),

which smells strongly of Peppermint. The drug "Menthol" is derived from a Japanese species (*M. piperascens*).

Pennyroyal (*M. Pulegium*).—This species was formerly highly valued as a medicinal drug as well as for culinary preparations, hence it was called "Pudding Grass." It was known as Piliolerial in the fourteenth century, and employed for various purposes, as to sharpen the eyes. It entered into the composition of "save" for wounds.

Thyme (*Thymus Serpyllum*).—This familiar wild flower is especially abundant on dry, heathy soils. The essential oil is strongly aromatic, so that it has long been cultivated, especially a variety known as Lemon Thyme.

Marjoram (*Origanum vulgare*).—This plant is particularly abundant on calcareous soils, as in the south-east of England. Like others the oil is an aromatic stimulant, and used as a remedy for toothache.

Ground Ivy, or Ale-hoof (*Nepeta Glechoma*).—This early-flowering creeping plant is bitter and aromatic. It has been used for flavouring ale. Hence it acquired the name of "Gill" from the French *giller*, "to ferment" beer; but as "Gill" also meant a "girl," the plant came to be called "Hedgemaidens." The juice of this plant with that of Groundsell and Plantain was supposed to cure small ulcers in the eye, and to remove the white specks which sometimes appear in horses' eyes.

Horehound (*Marrubium vulgare*).—This has long been valued as a remedy for coughs and pectoral complaints. A tea is made from the woolly leaves.

Wood Sage (*Teucrium Scorodonia*).—This is a common plant in heathy districts. It has strong tonic as well as the usual aromatic properties of labiates. It was formerly used as a substitute for hops under the name of "Ambrosie" in Jersey.

Betony (*Betonica officinalis*).—It is remarkable that this plant, which has no special virtues, was long regarded as a panacea for all the ills that flesh is heir to. Moreover, recipes and many pages descriptive of the virtues of Betony are given in the fourteenth century medical books, including its use for driving away devils and despair!

G. HENSLAW.

## ALDERSEY HALL.

**A**LDERSEY HALL, the residence of Hugh Aldersey, Esq., J.P., stands in a well-wooded park, nine miles south of Chester, looking towards the Broxton Hills. Two sides of the hall are bounded by the park and on leaving the house by the western exit one comes to a small lawn, from which a path winding beneath old Yew trees leads to the beautiful and secluded gardens. This side of the hall is entirely covered by a single plant of Ivy (with a trunk 4 feet in circumference), through which the cable-like stems—some 9 inches to 15 inches in girth—of a Clematis *Vitalba* run up to the roof. The gardens and pleasure grounds are twelve acres in extent, and have existed in their present form since the early part of last century, though some alterations and improvements have been made from time to time, principally during the last few years. The garden proper is laid out more or less in a natural style, giving different aspects, the flowers and trees being grouped in picturesque ways. Here one is reminded of the well-known lines:

"He gains all points who pleasingly confounds,  
Surprises, varies, and conceals the bounds."

Fine effects are obtained by combining various forms which aid each other and give a succession of pictures. There is no set pattern to weary the eye, but quiet grace and verdure and feasts of colour through several months of the year. Groups of beds of sufficient size to allow of bold massing are quite a feature in Aldersey Hall gardens. It is impossible to say when the gardens were first laid out, but as the family has resided at Aldersey for many



generations it is probable that it dates from early times. That it existed more than 200 years ago appears certain from some entries in "An Almanack for the Year of Our Lord God, 1684, being Leap Year," by Thomas Aldersey, barrister, who lived from 1634 to 1715, and whose portrait is at Aldersey Hall. He gives a list of about 150 Apples grafted during April of that year in "orchard," "graftyard," and "hedgerows," on "Crab stocks," "ye stand stocks in higher orchard," "ye great Crab tree," &c. The names given are Redstreak, Golden Redstreak, Red Redstreak, Brombro Crab, Bodnam Crab, Golden Rennet, Marygold, Harvey Tarpley, Golden Pippin, and Ginnet Moyl. Another entry towards the end of the book appears at first sight to relate to the garden "Aristolochia, Turmerick," but a closer inspection proves it to be a recipe for a "purge for mare." This Almanack, "Printed by Mary Clark for the Company of Stationers," is a thin leather-bound book, 4 inches by 2 inches, fastened by metal clasps, and the writing being in a small, cramped hand is not easy to decipher.

The long range of glass comprises greenhouse, early and late vineries, and stove, this latter containing, among other things, a fine plant of *Crinum erubescens*, which flowers nearly the whole year through. In the late vinery Peaches and Nectarines are grown on a trellis below the Vines, and very fair crops of each are obtained, as well as of late Grapes, the lateral growths of the Vines being trained to the main stems in order to give light to the trees beneath. The propagation of hardy plants is extensively carried out, recourse being had to the nurseryman only for new plants and varieties. In this work the gardener, Mr. J. Chisholm, is very successful, and is well supplied for the purpose with pits and frames in a convenient and sheltered frame-yard.

The kitchen garden has very substantial brick walls 14 feet high, that on the south side being 2 feet thick, with three sections of parallel flues throughout its length of more than 90 yards, formerly heated by furnaces. Adjoining this wall and running parallel to it for half its length, is the herbaceous garden, separated by an archway of Hops from the Rose garden, through which runs a long path leading up to the Cedar tree. On the further side of the Rose garden is a long rockery which, in the spring and early summer, is a sheet of colour with creeping plants and choice alpine, and has a background of Penzance Briars and Pillar Roses.

There are many fine trees in the garden, some of the most noticeable being a Cedar of about 80 feet in height, with girth of 15 feet, and diameter of branch-spread 83 feet. This is a well-proportioned tree on all sides, and in spite of its great spread of branches has never been damaged by wind or snowstorms. At 4 feet from the ground the trunk divides into four main stems, and the girth given is the minimum below this point. A handsome Wellingtonia more than 70 feet high with a girth at 5 feet from the ground of 8 feet 3 inches, and 24 feet diameter of spread of branches. A *Taxodium distichum* has a trunk 4 feet 5 inches in circumference at 5 feet up.

The chief features of the garden are the rockeries and borders and beds of hardy plants, among which may be mentioned

Daffodils.—A collection of more than sixty varieties is grown in beds on a long border under a west wall on one side of a path, while on the other side many kinds are grown in a natural way in the grass. Mr. Burbidge's advice to raise seedlings is taken, and seed is sown every year.

Sweet Peas.—The leading varieties have been grown for a number of years, and many others raised by cross-fertilisation. Whether autumn or spring-sown all plants are raised in pots. Prizes have been taken for Sweet Peas whenever exhibited at the principal flower shows, including nine prizes at Earl's Court and Eckford's Challenge Cup, and two first prizes at Shrewsbury last year.

Roses are grown in quantity, principally decorative kinds of the Hybrid Tea, Tea, China, and climbing classes. In addition to those budded on Briar stocks, a large number are raised from cuttings.

Delphiniums are raised from seed saved from the best flowers every year, and are grown in masses in separate beds.

to know the habits of different plants, so that each plant may be put in that position in the garden which is best suited to it, but this needs some years of experience, and even then one needs to know the differences of soil in one's own garden. I have seen sun-loving plants like *Nasturtiums*, *Rock Roses*, and *Eschscholtzias* growing in a damp, shady position, where they did little but produce leaves, and in the same garden I have seen Japanese Plantain Lilies, Lenten Roses, double Meadowsweet, and Lilies of the Valley being literally burnt to death in a hot, dry position. All these things would not only have done infinitely better, but would have succeeded instead of failed if one set had changed places with the other set. There are probably few gardens where there are not some anomalies of this sort, so much labour being wasted in trying to make things grow in soils and positions to which they are not suited. The extreme dryness of a given piece of ground is generally owing to the absorption of its moisture by the roots of large trees, though the latter may be so far from it or so situated that the ground is baked by the sun at the same time. Such a piece of ground should be turned out to a depth of 2 feet, and the



IN THE FLOWER GARDEN AT ALDERSEY HALL, CHESTER, THE RESIDENCE OF MR. HUGH ALDERSEY.

Autumn Phloxes are also raised from seed, though many of the best named varieties are grown. Some plants of *Romneya Coulteri* form large bushes under a south wall on a sheltered border, and, together with *Choisya ternata*, flower profusely.

The soil of the garden is heavy loam on clay subsoil, and requires thorough drainage in order to grow anything to perfection.

## PLANTS FOR DRY PLACES

IT is a common thing to hear it said of some particular part of the garden that it is so dry that nothing will grow there. This is never the sole cause of the bareness of any part of a garden in England. Some parts may be too rocky, sandy, or chalky, but where there is actual soil anywhere in this country there are many things that may be grown. It is a great secret of successful gardening

bottom well broken up with a pickaxe, a few barrow-loads of exhausted light-coloured soil being taken out, and a quantity of good rotted manure well mixed with the soil which is put back into the hole.

There is nothing like deep cultivation for overcoming drought, and in such a case as this it will also get rid of a great many of the roots which cause the dryness. This is assuming that the roots are of no consequence, such as those of Horse Chestnut trees—surely the most absorbent of all with their masses of fine fibrous roots penetrating every inch of the surface-soil within reach—Yews, Hollies, and the like. After such treatment the border will do well for a couple of years if the right things are put into it, and fairly well the third year, after which it will begin to languish again. But if the border is on the sunny side of some choice shrubs, and perhaps within reach of some hungry tree-roots as well, we can only make the best of it.

But there are positions worse than this, namely, under the shade of evergreen trees, Cedars, and coniferae of any sort, Portugal Laurels, Hollies,

&c. In such situations it is quite out of the question to think of growing flowers in the summer time. We may grow the Winter Aconite (*Eranthis hyemalis*), Snowdrops, and old-fashioned Daffodils for a year or two, and perhaps Primroses and Polyanthes if it is a retentive soil and we plant them afresh every autumn. But these all die down and leave the place bare in the summer, perhaps all the more untidy for having the dying leaves of the plants that try to survive. As a rule the bulbs will not bloom more than two years, though they may often have their duration prolonged by a dressing of basic slag in the autumn or superphosphate in the spring, as the soil in such positions is almost destitute of phosphate, and this is absolutely necessary for bulbs if they are to produce anything but leaves. The best thing in such cases is to be content with covering up the ground without hoping for anything more than a few bulbs in the early spring. There is nothing to beat some of the Ivies for this purpose, of which there are now a score or two of varieties to choose from, some of which are really beautiful foliage plants. The covering of the ground with Ivy need not prevent the planting of some bulbs underneath it every autumn, especially some of the Scillas, notably *S. campanulata*. Another thing almost equally good for such positions is the *Berberis Aquifolium*, with its brown-tinted foliage, so beautiful for cutting in the winter to mix with late *Chrysanthemums*, early *Narcissus*, &c. Both of these take a couple of years to get established in dry places, but, once established, they may be relied upon to keep the ground covered without any further attention, while the leaves from the trees above will afford them nourishment, though this may be supplemented by an occasional dressing of manure or basic slag, preferably both. The recommendation of both these plants is based upon the assumption that the position is not dark, but gets plenty of light, if not direct sunlight. The Rose of Sharon (*Hypericum calycinum*) will carpet the ground under most trees, but under the shade of conifers it is a veritable struggle for existence, and it may or may not succeed. The same may be said of the various sorts of Periwinkles, and also of the little Woodruff.

Having dealt with these almost impossible positions, let us turn our thoughts to those dry places where many flowers will grow, though at a great disadvantage, such as underneath deciduous trees, in front of shrubberies and greedy Cherry Laurels, and other similar places. Some of these beds and borders might be turned out and renovated, as described above, with great advantage, while others cannot well be so treated. In any case there are many things, principally spring and early summer-flowering plants, which do very well in such positions. Foxgloves, Evening Primroses, and Canterbury Bells will do as well there as anywhere if they are reared in some less unfavourable position in the garden and planted in their permanent quarters in these dry places in October, so that they get well established before the ground begins to get dry in the spring. Antirrhinums will often stand the winter in such positions when they do not elsewhere, and the same may be said of Wallflowers, the former being best planted out in the early spring, as they do not stand the winter so well if not well established. The old crimson Peonies will generally succeed, as they bloom before the soil gets thoroughly baked, but unless there is moisture enough in a normal season to keep them green through the summer they will look untidy, and will not continue flowering year after year unless they can be storing up plant food in their tubers during the summer. Some of the House-leeks do very well, notably *Sedum spectabile*, which makes a good show with its bright pink flowers. Some of the ordinary rockery plants will make good tufts, notably *Aubrietia*, *Arabis*, *Alyssum saxatile compactum*, perennial *Candytuft* (*Iberis sempervivum*), and the Rock Roses (varieties of *Cistus* and *Helianthemum*). Some of the *Aquilegias* will succeed in the driest places if the ground is deeply dug at the time of planting, but the long-spurred ones need a moister position, as they are more delicate and bloom later in the season. The red Valerian (*Centranthus ruber*) is very showy if the

deep red variety is obtained, and lasts in bloom a good part of June and July, keeping green the remainder of the summer. It sometimes grows on the very face of chalk cliffs. It is well to sow a packet of seed in the spring or summer, and when they bloom the following season weed out those of poor colour. Of the *Fumitorius*, *Corydalis bulbosa* (purple) and *C. lutea* (yellow) are effective in masses, but as the former dies down in June it should be arranged so that other things spread over it in the summer, as it is too shallow-growing to allow of planting over it. The latter will often grow to perfection on old walls upon which a deposit of soil has been formed by the growth of other plants. The sweet-scented single Rocket will grow in the driest places, and as it seeds itself anywhere little trouble need ever be taken to plant it when once it has established itself.

The old-fashioned *Honesty*, which is so much valued for house decoration in the winter, also adapts itself to any soil, however dry, but it does not seed itself freely. The bright crimson is the only variety worth growing, and this is really very showy. One of the *Brooms* (*Cytisus purpureus*) is another very suitable plant for our purpose. It is of dwarf, spreading growth, and produces an abundance of bright purple flowers. The ubiquitous Marigold—varieties of *Calendula officinalis*—can scarcely be killed by any extreme. It seeds itself everywhere, but, unfortunately, rapidly deteriorates in the quality of its bloom; at least, if it is one of the choicer varieties to start with. Our old friends the Sweet William and Jacob's Ladder (*Polemonium*) must not be forgotten, while many of the hardier Irises will keep green in almost any position, though they will not always bloom unless they are fed. The humble little Thrift (*Armeria vulgaris*) makes a pretty edging along the front of such borders or beds as we are catering for.

If the border can be deeply dug and well manured there are some things which will do better in such dry, sunny positions than anywhere else. One is the *Portulaca*, a half-hardy annual, which with its brilliancy and beauty of colour should be grown wherever a suitable place can be found for it. It does not succeed anywhere so well as in a hot, dry soil. A packet of the single mixed varieties will make the best show. Another annual, though it does best sown in August and treated as a biennial, is the *Eschscholtzia*. In a damp or at all shady position it runs much to leaf and gets very unwieldy, but in a hot, dry position it is literally a mass of flowers a good part of the summer. The *Chrysanthemums*, too, both the early and late-flowering varieties, seldom suffer much from drought, especially those which bloom from September onwards, as the latter usually get plenty of moisture at flowering time. I have had to deal with a bed and some borders which were simply a mass of fibres of Chestnut tree roots, and have had some experience as to what will and what will not grow under such conditions, and I can confidently recommend all the above from my own personal experience. ALGER PETTS.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

**C**ALANTHES. — During the autumn and winter months there are no plants better adapted to decorative work than these. The sorts that are grown generally—and they are the best—are *C. Veitchii*, *C. vestita* rubro oculata, and *C. vestita luteo oculata*. From the base of bulbs that have for some time been at rest may be seen springing the new growth, and this is a true indication that they require to be dressed and repotted immediately. A very satisfactory method of dealing with the bulbs at this time is to get the old roots away from their base, and then to stand them upright on a bed of leaf-mould placed in shallow boxes. This will encourage an immediate and vigorous root activity,

and before they get far advanced place them in the pots in which they are to flower.

### TUBEROSES.

Many of the failures that occur in the culture of these is caused through applying water to the soil in which the roots are placed before they have commenced to make leaf growth. Plunge the pots in a bottom-heat of 65° and encourage early root action, but little or no water should be given until leaf growth commences, after which liquid manure may be applied with advantage. A cool house, with a light shade from strong sun, will preserve the flowers in a good condition for a long time.

### COLEUS THYRSOIDEUS

when in flower during the winter is very effective. Plants that have previously flowered should now be cut down and be encouraged, by placing them in warmth, to break and produce shoots for propagating. The young plants when they are grown strong will produce larger spikes of flowers than will the older ones; but these if stopped once or twice during the growing season will make larger specimens, and will produce flowers in abundance.

### CAMPANULA PYRAMIDALIS.

The majestic-looking spikes of flowers that these plants produce when grown in pots for the greenhouse are indeed everyone's delight to look upon during August and September. The seeds from which a batch of plants for flowering next year is to be raised should be sown at once in well-drained pots or pans, and will require to be placed in a temperature of about 65° in which to germinate. Directly the young plants are well through the soil remove them to a cooler temperature and gradually inure them to fresh air, as a medium by which they will be induced to grow strong and keep dwarf. J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*

## FLOWER GARDEN.

### IVIES.

THE present is a good time closely to prune Ivies growing on arbours, walls, &c., as new growth will soon commence, and there will be a minimum of bareness. Unless there are special reasons to the contrary, it is advisable annually to clip off all the leaves. The new growth is then much cleaner, and there is not so much danger of winds tearing the branches from the walls. Young plants will still require a little guidance to ensure the lower portion of the space being properly covered. Where possible it is best for the Ivies to cling to the wall themselves rather than nail the shoots, and with this end in view it frequently pays to cut back some of last year's shoots which are not firmly adhering.

The numerous varieties of *Hedera Helix* are so varied and beautiful that an attractive bed might be made with their use alone. When planting either the "tree" or climbing forms it is well to give as good a soil as can be obtained, and when possible use good-sized plants that have been growing in pots.

### LAWNS AND WALKS.

The sweeping and rolling of the lawns should be continued as often as weather and circumstances permit. Unless done upon the completion of mowing last year, the lawn-mowers, edging-shears, and scythes should be overhauled to see that they are in thorough working order, and that the cutting edges are sharp. Any necessary repairs should be at once done, as the mowing season will soon be upon us. Where the grass edges have become irregular they should now be cut with the edging-iron, first stretching the garden line as a guide. Especial care should be taken to maintain the outline of all curves. Gravel paths should be cleaned and raked smooth. If necessary the walks should have an application of some approved weed killer. A thin coating of fresh gravel will freshen up the path and add greatly to its appearance.

### ROCK PLANTS.

Any alpine or plants for the rock garden received from the nursery or that have wintered in pits

should be planted out in their permanent quarters at the first opportunity, using as far as possible fresh soil of a nature suited to their various needs. For a few days a little protection will be beneficial, and a strict guard should be kept against the depredations of slugs and mice, for these share with man a liking for a change of diet.

#### SCHIZOSTYLIS COCCINEA.

The spring is a good time to divide and replant clumps of the beautiful Kaffir Lily. This is a most useful plant, flowering as it does towards the end of the year, when there is a scarcity of showy plants. A light rich soil is the one best suited to its needs. Here we grow it, associated with the lovely *Sternbergia lutea*, in a narrow border in front of the range of hothouses.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## FRUIT GARDEN.

### ORCHARD HOUSE.

THE earliest Cherries which have finished stoning should have the temperature increased to 50° on cold nights and 55° on mild ones. Plums and Cherries are very often grown together, and require the same treatment to a certain period, when Cherries require a dryer atmosphere or the fruits crack. If Apricots, Pears, and other fruits are grown in this house, and are in flower, care must be taken not to excite them by allowing the temperature to rise suddenly. A little air should be left on always, unless the weather is very cold or cold winds prevail. Go over the flowers daily at midday with the brush, and keep a little warmth in the pipes. See to disbudding the strong-growing trees first, pinching the side shoots to two leaves, and allow the weak-growing trees a little more time. Green or black fly must be kept under by light fumigations. See that the trees do not suffer for water at any time; this is often a cause of the fruits dropping later.

### EARLY MUSCATS.

In the earliest house where the Grapes are swelling the Vines should now be pushed forward. Give them plenty of heat and moisture. Close the house at 80° on bright days, and allow a further rise of 10°. Muscats require plenty of nourishment, and should have alternate top-dressings of Vine manure and diluted liquid manure. Later Vines which are in flower should have a night temperature of 68° to 70°, and a further rise of 15° on bright days. Keep the points of the bunches near the light, as Muscats do not set well under dense foliage. Go over the bunches daily with a large camel hair brush, using Black Hamburg or Alicante pollen previously saved. Thoroughly water the border when the Grapes are set if necessary, and pay attention to tying down shoots and stopping laterals.

### LATER HOUSES.

Pay attention to the disbudding of Vines, removing the weakest shoots first, or as soon as it can be seen which promise to make the best bunches. Select well-shaped bunches in preference to large shouldered or loose ones. Keep a moderately moist atmosphere by syringing the walls and damping the paths. If the border has not been watered since the Vines were started give it diluted liquid manure if the Vines are old, and clear water to young strong Vines at a temperature of 80°. Give a night temperature of 55° to 60°, closing early with sun-heat, as this helps to draw out the bunches.

*Impney Gardens, Droitwich.*

F. JORDAN.

## KITCHEN GARDEN.

THE storm seems to have spent itself, followed by sharp winds that are rapidly drying up the soil. Little will be gained in committing seeds to the earth for a week or two until a little warmth has got into the soil.

### MUSHROOMS.

New beds may be made up every month till the end of May, when it often gets too warm for successful cultivation indoors. Beds that have been in bearing for some time and showing signs of

exhaustion should be given a thorough soaking of water at a temperature of about 80°; a little salt dissolved in the water will be beneficial. This should be applied with a watering-can having a fine rose, going over the bed several times to ensure a thorough soaking.

### LETTUCE.

In warm sheltered gardens those that have been wintered in cold frames or sown early in the year and hardened off may now be planted on a warm border. Where the walls are fitted with wide glass copings this is an excellent place for early Lettuce, Radish, &c. Seed may also be sown in boxes to keep up the supply, and pricked out in sheltered positions. Plants growing in frames and that are intended for immediate use will now require water freely; a slight application of weak liquid manure will benefit them.

### ONIONS.

From seed sown under glass in February seedlings will now be ready for pricking out; these will require generous treatment if the best results are desired. The soil should be rich and not too light. See that several inches of rough crocks and drainage are put into the boxes. The young plants may be put in 2 inches apart, and stood on a shelf close to the glass in a temperature of about 55°. Exhibition Leeks may be treated in a similar manner, or may be potted singly into 3-inch pots, and carefully grown under glass till the end of April.

### BRUSSELS SPROUTS.

A sowing of these should be made in a cold frame. It is in many gardens the plan to sow the main crop of these now, and plant as soon as ready. By this early system much more growth is got on the plants. The writer saw a splendid plot of this vegetable lately from plants that were sown in the autumn, along with Cabbage, Cauliflower, &c. I understand that the plants are more inclined to run to seed from this method, but no such thing had occurred in the above-mentioned lot.

### CELERY.

Where a very early supply is desired a pinch of seed may be sown now. White Plume is, perhaps, the most suitable for early sowing. Stand the seed-pan in a mild heat, and prick into boxes when ready. Celery for the main crop may be left for some time yet.

THOMAS HAY.

*Hoptoun House Gardens, Queensferry, N.B.*

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE PROPOSED GARDENERS' ASSOCIATION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The proposal to form a gardeners' association, with a centre in London, is simply an illustration of history repeating itself. In addition to articles which appeared in the gardening papers fifteen and twenty years ago in advocacy of some basis of combination among gardeners, in 1890 Mr. J. Hughes of Birmingham suggested the federation of gardeners' societies, and this suggestion no doubt led to the conference of delegates from gardeners' societies which was held at Tunbridge Wells in 1892; but, though there was a large attendance and a big dinner in the evening, at which several county magnates were present, nothing came of it. In May, 1893, Mr. F. W. Burbidge, in the pages of the *Gardeners' Chronicle*, advocated the formation of a guild or institute among gardeners for mutual co-operation. In March, 1894, Mr. H. Elliott, of the Stourvale Nursery, Christchurch, read before the members of the Gardeners' Mutual Improvement Association of Bournemouth a paper on "The Present Position and Future Prospects of Gardeners, and How to Improve Them."

This paper was deemed to possess so much importance that it was printed and circulated. Mr. Elliott advocated union; improved education; the formation of a central society having its head-

quarters in London, and local committees all over the country if they could be formed; the central council would be elected by the local committees; the council would make and publish rules for the guidance of the local committees all over the country; these rules would regulate a process of preliminary education and examination of all young gardeners, and the granting of certificates of proficiency to those qualified to have them; all persons holding situations as head gardeners to be granted a certificate without an examination on paying a small fee when joining the society; a certain period of two or three years to be allowed gardeners in which to register themselves and take up their certificates, after which stated time no more certificates to be awarded except to those who could prove their proficiency before a practical board of examiners appointed by the society through its council. Mr. Elliott left untouched the question of most concern to the great body of working gardeners—that of remuneration; and that is just the one which is uppermost in the minds of a very large number of gardeners throughout the country. This is the difficult question which will have to be faced by the newly-formed National Gardeners' Association in London.

The general gardener is, no doubt, alive to the importance of education and of being accurately posted up in all the important details of the profession, but he is also asking: "What is the use of all this if I am expected to subsist on poor pay?" It is material improvement the gardener wants, in some cases to be better housed, to have increased pay, to be the unfettered head of his department on an estate and responsible alone to his employer. I fear that the aspirations of many hundreds of gardeners will be checked if they hope to get such personal interests as those just sketched taken up by the association. There is a danger, too, of the employers coming to look upon the association with something of suspicion. There is much of the spirit of the feudal system existing in our county families. The gardener is regarded by them as a domestic servant—his residence is in cases furnished for him, he lives in it rent free, his rates are paid for him, and he enjoys other privileges—and he will remain a domestic servant. It is quite true that, compared with any other superior servant, it is requisite that the gardener be intelligent, educated, and grounded in much elementary knowledge, which he has to apply in the prosecution of his work, but that does not make him any the less a domestic servant. It is to be hoped that every action of the committee of the association will be fully considered before it is made into a rule, and, above all things, it is most important that the susceptibilities of employers be not needlessly alarmed.

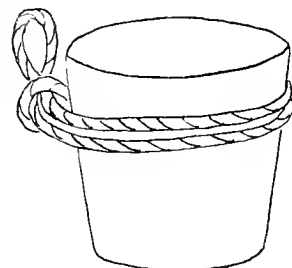
R. DEAN.

### TUB GARDENING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the question by E. E. St. Paul in *THE GARDEN* for February 27, as to the best mode of carrying tubs filled with soil and growing plants, I have found the easiest plan was to have two stout cords, each of them in length rather more than twice the circumference of the tub. Fold each in the middle of its length, and in each case knot the ends together. Take one of these double strands and put it round the tub, slipping the doubled centre through the double-knotted ends. Do the same with the other double strand, but so that the loop of the centre of the length shall be on the opposite side of the tub. Then if a couple of poles are slipped through these loops two men can carry them anywhere.

C. E. F.



## FRUIT-TREE PRUNING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. W. Crump's note on this subject (page 169) is so excellent that I should be glad to elicit another letter from him. His general principle of extension pruning is unanswerably right, but in its particular applications several questions arise which demand thought and experience. Mr. Crump's experience is so large that I for one desire to benefit by it. The model form of fruit tree is, no doubt, as he says, a "tree with stout and strong, well-regulated branches, every one of which should ultimately become a perfect cordon of fruit spurs from base to summit, capable of rigidly supporting its allotted weight of high-quality fruit without danger of breaking off." Now these last words, "danger of breaking off," seem to me to need very careful consideration. Only lately I was admiring in a friend's garden some standard Apples and Pears admirably grown into precisely this form of long, well-furnished cordons. They happen to stand in a sheltered position, but it occurred to me while looking at them that the weight and long leverage of the branches would, in a more exposed situation, and in rough weather, entail great danger of breakage at the base. A standard left to grow more as it likes, though less fruitful, distributes the weight of its head in a much safer manner. This danger is, of course, reduced in proportion as one allows more in number of such cordon limbs to the tree. To allow, say, only seven or eight long and weighty cordon branches seems a perilous putting of all one's eggs into one basket—or into too few baskets—a breakage means the destruction of a large portion of the whole tree.

Again, suppose this cordon form to be determined upon, whether for standards or for bushes, this same question of how many branches shall be allowed is intimately bound up with the whole welfare of the tree. If we allow too few, the tree may for a while be fruitful, but will tend to be short-lived, just as the single-stemmed, spur-pruned Vine is fruitful, but short-lived for want of adequate leaf surface—its natural forces are too severely repressed. I should, therefore, like to ask Mr. Crump how many such branches he would retain on an average standard or bush Apple? It might be more practical to discuss bushes only, because, however desirable in theory, in practice the owner of large orchards will scarcely find time, or pay for the skilled labour, to prune his standards cordon fashion. I have recently planted somewhat over an acre of Apples, mostly bushes. Some are three, the greater part two years old. My soil is good, the trees have been well planted and cared for, and are making splendid growth. For the first two years I shortened them in rather strictly, to shape a good framework. The three year olds are now furnished with branches of such stoniness that this winter I have considered it sufficient to remove only about one-third of their length, as the outward bend to which I cut at that point looks strong enough to carry on a substantial extension, and to cut lower would probably force the production of stronger laterals than I want. I am making a point of keeping the bushes quite hollow in the centre, and am leaving more branches than are allowed in the orthodox treatises on pruning. My notion is that, with the centre fully open to sun and air, there is no need of more space between the branches than to allow of the spurs clearing one another, and of the free passage of the hand and arm in gathering, pruning, &c. Certainly the more branches and leaf surface, in reason, that are retained the fuller should be the root action, and the healthier and longer-lived the tree. But if this principle is right, is not the "pyramid" wrong? In the pyramid, however carefully the surrounding branches may be spaced, the central member fills the centre, and makes the tree solid, so to speak, instead of hollow and pervious to light and air. The pyramid, described briefly, is a solid cone, while the bush, as described above, is a hollow inverted cone. Surely the reasons for the basin-like form of the Kentish Nut bushes must apply with equal cogency to Apple trees. While writing I will ask Mr. Crump whether he

has had any experience on a point which lies outside the present subject of pruning. Out of a plantation of standard Apples which I made in 1902—good-looking trees, well planted in November, and pruned back the same winter—a few made such a very feeble top growth that I determined to replace them the next autumn. To my astonishment they had made a perfect mat of fine fibrous surface roots, such as, I presume, must have driven them into excellent growth the next summer had not my men lifted them all before I saw the first. A friend of mine, a competent gardener, had the same experience in Gloucestershire the same year, so the cause was possibly climatic. Most of the trees were Worcester Pearmain.

Dinton, Wills.

GEORGE H. ENGLEHEART.

## THE VITALITY OF SEEDS.

THE following correspondence has taken place recently in the *Standard*:—

SIR,—During last year a collection of vegetable and flower seeds, specially packed in a sealed tin box, came into my possession at Dawson, Yukon Territory. The box and its contents, which had been given to a missionary in 1895, had been left unopened by him on leaving the Klondike in 1900, and for years these seeds lay amongst a lot of rubbish subjected to a winter temperature ranging as low as 68° Fahr. below zero, followed by me in 1903, these seeds grew perfectly well, a circumstance which not only throws light on the vitality controversy, but testifies to the fact, not generally, I believe, realised by people in this country, that Dawson, situated as it is in a portion of Canada almost within the Arctic Circle, is yet not entirely a barren waste from a horticultural point of view.

Cambridge, Feb. 19.

C. C. CHATAWAY.

SIR,—Will you allow me to supplement Mr. Chataway's letter? It seems important that it should be understood that the seeds he mentions as having lain exposed from 1895 to 1903 to temperatures ranging between 68° Fahr. below zero each winter to 90° Fahr. each summer, and which he found to germinate freely last year on opening the tin box containing them, only endured those vicissitudes in consequence of special treatment. Some five-and-twenty years since I read a report, written early in the nineteenth century, from an Indian Government official, calling attention to the fact that he had had seeds raised by his gardener in his English country home for his use in India; that while some of these seeds had proved excellent others were absolutely worthless. On enquiry he found that in the one case the pods containing the seeds had been hung up in the chimney corner of the kitchen of the English mansion for some time and the seeds placed while warm in bottles and sealed. The seeds that had failed, although dried in a similar way, had not been bottled for a considerable time afterwards. This hint was sufficient to start me on a long series of experiments, having for their object the safe elimination of the excess of moisture which all seeds contain as harvested in the English climate, however dry they appear when handled. This moisture has been a cause of very great trouble when English seeds, packed in hermetically sealed boxes, passed through the tropics, where the heat in the ship's hold caused the seeds to sweat and become mouldy. Naturally, I found there was a very great diversity in the amount of such moisture contained in the different varieties of seeds, and that, while some seeds could safely lose an amount of moisture equal to 10 per cent. of their weight, others could not part with more than 5 per cent. without injury; consequently, the degree of dry heat to which seeds could be safely exposed, and the proper duration of such exposure before packing, varied very much, while some seeds required much more gradual desiccation than others. But before the experiments were completed, knowledge on these details was acquired, with the result that there seems hardly any limit to the period during which the germination of

seeds may be conserved if they are properly prepared by drying in a suitable high temperature and hermetically sealed in that temperature. For many years past, seeds thus packed by my firm have been successfully used in all climates, and the box Mr. Chataway mentions was one of those which every agent of the Church Missionary Society, the London Missionary Society, and the Baptist Missionary Society receives annually, containing seeds for his personal use in mission gardens from the Tropics to the Arctic Circle.

Reading, Feb. 23.

MARTIN J. SUTTON.

## SOCIETIES.

## EAST ANGLIAN HORTICULTURAL CLUB.

AT the March meeting of this club a good number of members were present, and over a dozen new names were added to the roll, which is now nearly 300. Mr. J. Powley was to the chair, with Mr. T. B. Field (Ashwellthorpe) in the vice-chair, and both these were supported by many of the leading local professionals and amateurs. Two papers were read in the competition confined to single-handed and amateur gardeners upon "Spring Bedding." The judges awarded the first prize to Mr. C. Matthews, gardener to Louis Willett, Esq., Thorpe, and the second was Mr. D. Howlett, gardener to Thomas Chaplin, Esq., Norwich. During the discussion upon the subject, Messrs. J. Clayton, T. B. Field, H. Perry, J. C. Abel, and the president all pointed out that the pith of the subject, viz., that of arrangement, effect, and massing, had been missed, the essayists both following the trend of how to cultivate. Following this, Mr. H. B. Dobbie, gardener to E. J. Caley, Esq., Pine Banks, Thorpe, Norwich, delighted those present with a paper upon "The Iris Family." The way Mr. Dobbie handled the subject, describing all the sections of rhizomatous and bulbous-rooted species, deserves every commendation. With a growing specimen and numerous illustrations he was able to point out many features of these curious flowers. Situations, soils, treatment, native homes, and hosts of other points were all clearly explained, and the interest was so keen that many felt sorry when the end was reached. A capital discussion followed. Mr. J. Clayton spoke of the interest taken in getting some of them to bloom, as also did Mr. T. B. Field, who greatly praised the writer.

The competitive exhibition was fairly well contested, especially the class for Rhubarb, Mr. C. H. Fox, gardener to Sir Edward Mansel, Bart., Catton, taking the leading place. Mr. E. Williams, gardener to Louis Tillet, Esq., M.P., Norwich, was able still to show a good dish of Pears, and his arrangement of a bouquet of flowers gave him a front place in a well-contested class. Mr. A. F. Cooke, gardener to Canon Ripley, in the bouquet class had a charming bunch, not quite so effective as the former, in which we noticed some good *Chrysanthemums* and fine *Dendrobiums*. Mr. Charles Matthews, Thorpe St. Andrew, brought up a plant of the new *Coleus thyrsoideus*, with good spikes of its pretty blue flowers. It was announced that at the meeting on April 13 Mr. George Gordon would give an illustrated lantern lecture upon "Beautiful Flowering Shrubs."

## HORTICULTURAL CLUB.

AFTER the usual monthly dinner of this club, held at the Hotel Windsor on Tuesday, the 8th inst., under the presidency of Mr. Harry J. Veitch, the Rev. Professor Henslow, M.A., F.L.S., &c., gave a most interesting address on the "Use and Abuse of Botanicising." Taking the abuses first, he severely criticised those amateurs whom he divided into two classes—the mere gatherers, who on so-called botanicising excursions do so much to denude the country of its floral and ferny gems by indiscriminate rooting up, only to be followed in the vast majority of cases by subsequent throwing away or installation in gardens, followed by neglect which leads to identical results; and collectors who do a vast deal of similar damage on more recognised but still unsystematic lines. Some of these latter, too, are guilty of criminal selfishness, their chief aim being the unique possession of rarities, to secure which they actually destroy any surplus, and in this way contribute to entire extermination. A noted station of *Pinguicula grandiflora* was instanced as a case in point, not a single specimen being left after a raid of this kind. Mr. Charles E. Pearson subsequently instanced similar cases of vandalism in connexion with rare birds' eggs and entomological rarities, and the gist of the discussion which followed the address, and in which Messrs. C. T. Drury, George Paul, T. W. Sanders, Waterer, and H. J. Veitch participated, was the absolute necessity of some more stringent laws for the protection of wild plants and wild birds, &c., from the raids now made upon their habitats by amateur so-called botanists and collectors and gatherers, especially including those who for mere purposes of gain "skin the planet," as Shirley Hibberd put it, in order to supply the markets with this vandalised material. Mr. Drury instanced several cases which had come under his notice of unique Ferns which had been destroyed by the repeated collection of their fronds for the making of dried herbarium specimens, so that now nothing remained of such natural gifts to mankind but a few dried fronds in scattered herbaria, instead of, as in cases he alluded to, not only herbaria generally, but collections of living specimens being permanently enriched by the careful transference of the rarity in a living state to culture and its subsequent propagation on an extended scale. He also mentioned a kindred case to that of *Pinguicula grandiflora*, a habitat of a rare Fern in Scotland being absolutely cleared by a raid of students, led by a professor to the spot which had, unfortunately, become known to them. Professor Henslow subse-

quently treated of the recognised and invaluable services rendered by herbaria on systematic lines, enabling the comparison by experts of specimens derived from all parts of the world, and thus facilitating that classification which is one of the most difficult botanical tasks. Turning to the evolution of botanical knowledge, he went back to the old times when plants were only interesting on account of their actual or assumed medical virtues, when the herbalist was practically the only botanist, and as an exemplification of the ridiculous ideas prevalent in those days, and apparently even in these, he produced a recent edition of Culpeper's "British Herbal and Family Physician," of which some 50,000 copies had been sold within the last fifty years, and which was still sufficiently in demand to pay well for publishing. In this book all kinds of occult medical virtues are associated with the influences of the various planets, in what would be a most amusing fashion did it not involve a very serious reflection on the intelligence of the purchasers and the progress of real knowledge in these so-called enlightened times.

At the conclusion of the address and discussion it was announced that Mr. T. W. Sanders, F.L.S., would give a paper, entitled "Back to the Land," at the next meeting of the club on April 19. A very hearty vote of thanks to the Rev. Professor closed the proceedings.

#### UNITED HORTICULTURAL BENEFIT SOCIETY.

The annual general meeting of this society was held in the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. Horace J. Wright was in the chair, and there was an attendance of some thirty persons.

The secretary read the minutes of the last general meeting and the following

#### ANNUAL REPORT.

It is with the pleasure that results from continued success, and the knowledge that the society is now filling that place in the horticultural world for which it was created thirty-nine years ago, that the committee brings forward its report for the year 1903. Both financially and numerically the society continues to progress steadily.

It is interesting to notice that while some fewer new members were elected than in 1902, the number was eighty-three, precisely the same as in the years 1899, 1900, and 1901. Five members died during the year, twenty-seven lapsed from various causes, and one, having passed the age limit, was, at his own request, paid out. This leaves a net gain of fifty for the year, and brings the total membership to 1,016.

The society also shows sound financial progress, the amount invested during the year being £1,800, making a total of £22,018 12s. 7d. now in trust for the members. Sick pay for the year amounted to £303 5s., a slight increase on the payments under that head in the previous year, but yet showing a decrease in the sum chargeable per head, this being 7s. 2d. and 4s. 10d. as compared with the 7s. 5d. and 4s. 11d. of 1902. The benevolent fund has rendered assistance to the extent of £129 2s. 6d. Of this amount, members over seventy years of age (thirteen) received £61 8s., and members transferred from the sick fund (six) received £53 15s., all in weekly allowances. In addition, special grants varying from 19s. 6d. to £5 were made to five members, the total amount being £13 19s. 6d. The convalescent fund has only been drawn on to the extent of £4 10s., and the committee feel that the sick and benevolent funds might often be relieved somewhat if members recovering from an illness took advantage of this fund before resuming their employment.

The committee would especially draw attention to the fact that lapsed members do not forfeit any amounts standing to their credit in the society's books. This should not be lost sight of when young gardeners are being induced to join the society. The totals amounting to the credit of lapsed members is £1,564 13s. 8d., which, by the way, earns interest for the benefit members. The largest amount credited to a lapsed member is just over £65, and the lowest is 1s.; forty-four have over £10; sixty-five have over £5 and less than £10; and 221 have amounts less than £5. All these sums can be claimed when the lapsed member reaches the age of sixty, and in the case of earlier death by his nominee. Lapsed members having £5 to their credit may be regarded as having belonged to the society for about five years; while those with from £5 to £10 to their accounts have an average membership of seven and a-half years.

The committee wishes to tender its best thanks to the honorary members, and especially to Mr. Peter Barr, V.M.H., who so ably presided at the largely attended annual dinner, held at the Holborn Restaurant on October 10. The nurserymen and seedsmen who have been good enough to publish the title and objects of the society, together with the secretary's name and address, are also warmly thanked for the services thus rendered. At the same time the committee wishes to express its high appreciation of the many services ably and cheerfully rendered the society by the horticultural Press.

The chairman, in moving the adoption of the report, said he thought the committee could not have presented a more satisfactory report. He had been looking through the history of the society, and thought its progress poor, due, not to the neglect of the management, but to that of gardeners throughout the country. He thought they ought to have joined in greater numbers. Mr. Wright gave some figures showing the progress of the society from its early days; thus in 1871 there were 40 members, in 1890 there were 353, in 1900 there were 846, and in 1904 the total had reached 1,016. Much of the society's progress in its early history was due to the advocacy of its claims by Mr. John Wright. The chairman drew attention to the advantages this society has over an ordinary benefit society, and instanced an example. With reference to the matter of advertising, he thought this was necessary, although it was rather a difficult matter. He had met many gardeners who had never heard of this society. He suggested that representation should be made to gardeners' societies throughout the country, asking them to set apart one evening that someone might go down and bring to their notice the benefits that accrue to members

of the "United." The chairman then paid a tribute to the management, which he thought to be economical and most satisfactory. He thought there was too much money in the convalescent fund. Last year only £4 10s. was disbursed, which was much less than the interest received upon the balance in hand for 1903. He thought 10s a week from this fund to be too little, and if they could not afford to increase the weekly disbursement, then they should give a lump sum instead. The adoption of the report and balance sheet was then formally moved.

Mr. C. H. Curtis, in seconding the resolution, mentioned that as much as £117 stood to the credit of some of the members. If the society were broken up, each member would receive about £22. He thought no other society could show so much invested money per member. They never refused a member who applied to the convalescent fund. There might possibly at some time be a run on this fund, and if the weekly disbursement were raised they would soon pay away all the interest, and they could not touch the invested funds. The business of the society and the responsibilities of the committee have greatly increased of late years.

Mr. Brown (Chertsey) did not think it advisable to increase the weekly disbursement from the convalescent fund. He said that the National Deposit Association did a good work in the country, and it had the advantage over their society that a member could draw a certain amount of money at any time if he were in need of it. He thought that the fact that gardeners often could not afford to subscribe, was one of the reasons that the United did not make more progress. The adoption of the report and balance sheet was carried unanimously, and it was resolved that 3,000, as last year, be printed and circulated.

Messrs. Curtis, Thompson, Harding, and Woods, retiring members of committee, were re-elected, and Messrs. Westgar and Hawes were elected to fill the vacancies caused by the retirement of Mr. Humphries and Mr. Summers, both of whom were heartily thanked for their services.

Mr. Collins was re-elected secretary upon the proposition of Mr. Riley Scott. Mr. Collins, in reply, said he had been connected with the society for thirty-five years.

Mr. Hawes proposed a vote of thanks to Mr. James Hudson, treasurer. This was seconded and passed unanimously. A resolution of sympathy with Mr. Hudson in his recent illness was also passed.

Mr. John Wright proposed a vote of thanks to the trustees, Messrs. G. and J. Wheeler and Riley Scott. Mr. Wright concluded an interesting speech, largely about the early history of the society, by quoting the motto of the Fruiterers' Company with reference to the "United," "May it grow and grow, and flourish root and branch for ever." The vote of thanks was seconded and carried *nem. con.*

Mr. Taylor proposed a vote of thanks to the Press, to which Mr. J. H. Dick replied. This concluded the formal business before the meeting.

Mr. Brown (Chertsey) then proposed that a recommendation be made to the rules sub-committee that the committee receive payment for travelling expenses, and that they endeavour to call a special meeting during the Temple Show week to consider the matter. Mr. Brown wished to put this before the meeting as a resolution, but it was ruled out of order, and, therefore, altered to read as above. After a good deal of discussion, during which it was said the committee did not wish for payment, the recommendation was seconded by Mr. Price and passed.

A vote of thanks to the chairman concluded the meeting.

#### ROYAL HORTICULTURAL SOCIETY.

##### SCIENTIFIC COMMITTEE (MARCH 8).

PRESENT: Dr. M. T. Masters, F.R.S. (in the chair), Messrs. Chittenden, Nicholson, Michael, Veitch, B. Wales, Drs. Rendle and Cooke, Revs. W. Wilks and G. Henslow (hon. secretary). *Lobelia nicotianifolia*.—A fine plant was exhibited by Mr. G. Paul, a native of Neilgherry Hills and Ceylon. The flowers were white, but the figure (*Bot. Mag.*, tab. 5537, 1886) was violet-coloured. A botanical certificate, proposed by Mr. Veitch and seconded by Mr. Chittenden, was unanimously awarded to Mr. Paul.

*Jasmine with tuberosus growths*.—Specimens received from Mrs. Street, Woodside, Caterham, were examined by Mr. Saunders, who reports as follows: "It is difficult to account for the growths, as there are no signs of insect or fungus. Growths of a similar appearance occur on the roots of Roses, being caused by the irritation set up by ants."

*Palms and scale insects*.—Mr. Hall, of Mowbray Park, Sunderland, sent some specimens, upon which Mr. Saunders reports: "The insects unfortunately arrived in a bad condition. (1) A parasitic fly (?), nearly allied to the Ichneumonids. (2) Undiscoverable. (3 and 4) Two-winged flies (fam. Mycetophilidae) or 'fungus gnats,' as the grubs feed on fungi or decaying vegetable matter; they are of no importance. (5) Scale insects, but so covered with germs as not to be identifiable."

#### BRIGHTON AND SUSSEX HORTICULTURAL SOCIETY.

##### ANNUAL REPORT, 1903.

In submitting the balance sheet for the past year, the committee deeply regret the loss, through death and other causes, of several of their vice-presidents and subscribers, and as few new ones have been introduced this year, they venture to appeal to those who have so kindly supported them, still further to assist, by inducing their friends to become subscribers. The ordinary members' list shows a substantial increase, which is very gratifying to the committee. The spring show works about normal. Owing to the generosity of the president, Alderman Abbey, Mr. T. Billing, and others, several new features were successfully introduced into the summer show, but the weather was detrimental to the receipts. The Chrysanthemum show produced a profit of £15 3s. 5d., which is somewhat less than usual, but here again the weather, although dry, was cold and cheerless. The working expenses of the year are about normal. It is gratifying, nevertheless, to the committee to be able to present a balance sheet showing a profit on the year's working of

£32 12s. 9d., and a balance in the hands of their bankers of £193 14s. 6d. The thanks of the society are due to the president, J. Colman, Esq., J.P., for a handsome silver bowl; to Alderman H. Abbey, Mr. T. Billing, and an anonymous donor, for substantial cash prizes, and to the vice-presidents and subscribers for their kind support during the year.

#### LECTURES FOR YEAR 1904-1905.

April 21, "Forcing," introduced by Mr. J. Spottiswood; May 19, open discussion, introduced by Mr. G. Miles; June 16, "Insectivorous Plants," illustrated with diagrams, by Mr. F. Field; September 15, "Use of Chemical and other Manures in Horticulture," illustrated with lantern slides, by Mr. T. Shrivell; October 20, "Carnations," by Mr. H. Elliott; November 17, "Chrysanthemums," introduced by Mr. G. Hart; February 16, 1905, open discussion, introduced by Mr. H. Goldsmith.

#### LIST OF SHOWS, 1904.

April 12 and 13, spring show, at the Royal Pavilion; August 23 and 24, summer show, at the Royal Pavilion; November 1 and 2, Chrysanthemum show, at the Royal Pavilion. Annual meeting, January 19, 1905. Members' excursion to Newick Park, June, 1904.

#### NATIONAL AURICULA AND PRIMULA SOCIETY.

##### ANNUAL REPORT.

IN presenting the twenty-seventh annual report of this society, the committee have much pleasure in congratulating the members upon a very satisfactory state of affairs. During the year fifteen new members have been added to the list as against a loss of eight, who have left the society from various causes. From year to year there has been a steady increase of members, thus demonstrating the growing interest taken in the beautiful Primula family, and a striking proof of the success of the efforts of the society to popularise this charming and fascinating class of flowers. The society now numbers ninety-one members, as against eighty-four for 1902. The financial position of the society is also in a very gratifying condition, the balance in hand to be carried forward to 1904 being £7 17s. 8d. The exhibition for 1903, which took place on Tuesday, April 21, under the auspices of the Royal Horticultural Society in the Drill Hall of the London Scottish Volunteers, Buckingham Gate, London, was one of the best held for many years past. Nearly the whole of the prizes offered in the liberal schedule were awarded, and, in the majority of cases, to most excellent exhibits. The committee deeply regret to report the death of Mr. William Besie, a comparatively young member, who was so successful at the last show and the previous one in 1902. Mr. William Smith, Bishop's Stortford, by way of encouraging new exhibitors, very kindly offers to provide the prize-money for two new prizes "for those who have never won a prize," viz., five prizes for pairs, and five prizes for single specimens of show Auriculas. Mr. James Douglas generously offers to present four medals (Royal Horticultural Society's), to be competed for, viz., a silver-gilt medal for the highest aggregate number of points gained in the large classes; a silver medal for the highest aggregate number of points gained in the smaller classes; a silver medal and a bronze medal for seedlings raised from the alpine seed presented to the members of the society by Mr. Douglas, providing the exhibits are worthy of the awards. A member, who does not wish his name to be published, very generously offers four prizes for single specimens of fancy Polyanthus and four prizes for single specimens, Primroses, and one. The class for six show Auriculas of one class is withdrawn. The twenty-eighth annual exhibition of the society will be held in the Drill Hall of the London Scottish Volunteers, Buckingham Gate, Westminster, under the auspices of the Royal Horticultural Society, on Tuesday, April 19. Mr. James Douglas of Great Bookham, Surrey, again generously offers to supply members with a packet of alpine Auricula seed saved from best exhibition varieties to such as will undertake to sow the seed themselves and cultivate the plants, and on condition that they apply for the seed in writing to Mr. T. E. Henwood before the first day of June.

#### NATIONAL CARNATION AND PICOTEE SOCIETY.

##### ANNUAL REPORT.

THE committee beg to submit to the members the twenty-seventh annual report of this society, in the hope and expectation that it will be considered by them in all respects satisfactory. Up to the present time the affairs of the society have exhibited a steady and most gratifying progress, and the committee are satisfied that it has not only done much to popularise the Carnation, but that it has been in great measure instrumental in bringing about the marked improvement in the flower in its many varieties, which has been so fully evidenced in the exhibitions of the last few years. The number of members of the society on the books at the present time is 350, a decrease of six during the year. The committee are anxious to impress upon the members the importance and necessity of a continued effort on the part of all those interested in the society to maintain its numbers, influence, and prosperity. The committee, on their part, are willing to undertake that advice from them, tendered through their experts, shall be forthcoming to any of their members who find unexpected difficulties in the cultivation of the flower. A letter to the hon. secretary, 16, Hamilton Road, Reading, detailing the circumstances under which advice is required, will meet with immediate and careful attention. The president of the society deeply regrets to inform the members that he cannot continue longer the annual distribution of seed from the Hayes gardens. The labour and trouble involved during the last few years, owing to the rapidly increasing membership of the society, has compelled him most unwillingly to relinquish the practice, which has become too heavy a tax upon his personal time and attention. The committee consider the financial position of the society to be in a very satisfactory state, the income for the year being £239 17s., and the expenses £227 19s., and the balance in hand carried forward

to 1904, £146 ss. 10d. The exhibition for 1904 will take place on Tuesday, July 26, in the New Hall of the Royal Horticultural Society, Vincent Square, Westminster. The committee beg to draw the attention of exhibitors to the schedule for 1904. The division for undressed blooms is now confined to amateurs only; the trade can no longer compete in this division. Two new classes have been added to it—one for single specimen yellow ground Picotees, and one for single specimen fancies. Particular attention is also drawn to Condition 6. In the interest of the society this condition will be strictly enforced, and no exhibit allowed to be staged after 11 a.m. The committee would earnestly call upon members of the society to recognise the onerous duties of the hon. treasurer, and to lighten them as far as it lies in their power by replying promptly to Mr. Henwood's application for subscriptions to the society when due.

#### CARDIFF GARDENERS' ASSOCIATION.

At a meeting held on Tuesday, the 8th inst., Mr. H. R. Farmer presiding, Mr. J. Pegler, hon. secretary and representative of the Newport Gardeners' Mutual Improvement Association, delivered the last lecture for the present session, entitled "Wonders and Curiosities of the Vegetable World." At the outset the lecturer said that he had chosen his subject from extracts of scientific works in order to bring them before the notice of the members. Some of the chief items were the marvellous monstrosities of various trees situated in different parts of the world. Reference was made to some of the unique specimens of wood preserved in the museum at Kew. At the conclusion of a splendid discussion the best thanks of the members were accorded Mr. Pegler for his lecture.

#### HANLEY HORTICULTURAL FETE.

This will be held in the Hanley Park on Wednesday and Thursday, July 6 and 7. There is, as usual, an excellent schedule of prizes, particularly in the classes for Roses, other cut flowers, fruit, and vegetables.

#### CROYDON HORTICULTURAL SOCIETY.

The thirty-seventh summer show will be held in the grounds of Brickwood House, Addiscombe Road, on Wednesday, July 6. A liberal schedule of prizes has been arranged, and we note that a new challenge cup will be offered for thirty-six Roses distinct (open), in addition to a large number of prizes and medals in all sections.

#### ROYAL BOTANIC SOCIETY.

##### PRELIMINARY ARRANGEMENTS.

GRAND horticultural exhibition for six days, from Monday, June 6, to Saturday, June 11, of plants, flowers, fruit, vegetables, and objects embracing every department of horticulture. The exhibition will include sections devoted to horticulture, botany, education, colonial horticulture, art, and sports. Monthly floral exhibitions of plants, flowers, &c., on Wednesdays, March 16, April 13, May 11, June 8, July 6, October 12, and November 9. Gates open at one o'clock. Floral decoration competition, by the students of the floral decoration class of the society's Ladies' Gardening School (date to be arranged). Exhibition of Rhododendrons, by Messrs. Waterer, Bagshot, Surrey, daily during June. Exhibition of hardy flowers and pigmy trees, by Messrs. Barr and Sons, Covent Garden, during June. Popular botanical lectures, by Professor W. B. Bottomley, M.A., F.L.S., Friday afternoons at four o'clock, May, June, and July. Admission by Fellows' orders. The gardens are open daily from nine to sunset. On Sundays from 10.30 to sunset.

#### READING GARDENERS' ASSOCIATION.

The last fortnightly meeting of the above association was held in the Abbey Hall, and there was a good attendance of members, Mr. W. Barnes presiding. Mr. J. Crook of Forde Abbey, Chard, gave a most interesting lecture on "Spring Flowers," confining himself principally to the Snowdrop, Narcissus, Primrose, Iris, Myosotis, Anemone, and Chionodoxa. He strongly advocated that these should be planted in as natural a manner as possible, doing away with all formality in their arrangement, and growing them as far as circumstances would permit in the grass. A good discussion followed, in which Messrs. Barnes, Townsend, Powell, Neve, Jennings, and Exler took part. The exhibits were exceedingly beautiful, consisting chiefly of spring flowers both indoors and out, and comprising Ghent Azalea, Azalea mollis, Indian Azalea, Polyanthus, blue Primroses, Snowdrops, Lilacs, Deutzias, Hellebores, Streptosolon Jamesoni, Tulips, Primula floribunda, and P. obconica from Mr. W. Townsend, Sandhurst Lodge Gardens; Mr. T. J. Powell, Park Place Gardens; and Mr. T. Nash, Bulmershe Court Gardens. Mr. F. Lever, Hillside Gardens, staged six well trained plants of *Myosotis longata perfecta*, seed sown September 2, 1903, and Mr. H. Sims, Fawley Lodge Gardens, a specimen plant of *Cymbidium lowianum*.

#### GARDENING APPOINTMENTS.

MR. WILLIAM COUTTS, announced in THE GARDEN to have been appointed as head gardener to A. K. Bulley, Esq., Ness, Neston, Cheshire, writes that he has been appointed foreman in the gardens there, and not head gardener as stated.

MR. THOMPSON, until recently gardener to the late G. H. Turner, Esq., Littleover, Derby, has been appointed gardener to H. Simpson-Gee, Esq., Knighton Frith, Leicester.

**The Liverpool Horticultural Association.**—The spring flower show of this society will be held on April 13 next.—HAROLD SADLER, Secretary.

**Royal Botanic Society's exhibition.**—On Wednesday last an exhibition of new plants and flowers, new fruits and vegetables, new garden apparatus and appliances, Daffodils, &c., was held in the gardens of the Royal Botanic Society, Regent's Park. Particulars of the exhibits will be given next week.

**The Newport (Mon.) Horticultural Society** will hold their summer show this year on August 4.

**Arum palæstinum at Kew.**—Among the more uncommon plants now flowering in No. 4 greenhouse at Kew is this Arum, which is, when at its best, striking, but not easily grown. True, large, well-ripened tubers with a prominent central crown, such as are sometimes sent to this country from Italy, usually about the month of July, can as a rule be depended upon to flower well, but in inducing them to bloom the second or third season I have not, so far, met with success. These large imported roots are sufficiently vigorous for a pot 6 inches in diameter, and if potted as soon as possible after they are received, and given ordinary greenhouse treatment, the leaves will gradually develop and the flowers unfold in February or March. It is decidedly ornamental in its foliage alone; the leaves are 8 inches or 9 inches across, and borne on stalks about 18 inches high. They are very dark green, and the flower-scape, which is usually rather shorter than the tallest leaves, bears a spathe about 5 inches wide, and longer in proportion to its width than those of the common white Arum Lily (*Richardia æthiopia*). In colour the spathe is green on the outside and blackish purple maroon within, while the erect spadix is almost dead black. This applies to the finest forms, for some are tinged with green, and then of course the flowers are much less striking. The spathe pales somewhat after a few days' expansion. When first opened the flowers have a disagreeable odour, a feature common to many Aroids, but this passes off in a day. Beside the specific name of *palæstinum*, it is even more generally known by that of *sanctum*, while popularly it is often referred to as the black Calla.—T.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—B. D. K.—*Sauromatum guttatum* (syn. *Arum vinosum*); native of Himalayas.—C. E. F.—Impossible to name positively without cones; probably a form of *Abies pectinata*.—J. L.—1, *Selaginella uncinata*; 2, *Reineckea carnea variegata*; 3, *Selaginella africana*; 4, *S. cuspidata*; 5, *Calathea (Maranta) Luciani*; 6, *Begonia Oliba*; 7, *Calathea (Maranta) kerchoviana*.—Thora.—The Rhododendron is *R. nobleanum*, a hybrid between *R. caucasicum* and the Himalayan *R. arboreum*.—C. G., Surrey.—It is almost impossible to name garden varieties of *Codium* ("Croton") from leaves, as they vary so even on the same plant. We have, however, compared them with living specimens where a collection is grown, and believe the following to be correct: 1, *Contessæ*; 2, *Weismanni*; 3, *Mortfontainensis*; 4, *Mrs. Dorman*. The figures 3 and 5 were indistinguishable from each other, but the leaf with a creamy white centre is Hawkeri, and the other *Septæ*.

**Rhododendrons splitting bark (THORN).**—We are afraid there is no remedy for Rhododendrons splitting their bark, which sometimes happens after severe frost or from excessive moisture at the roots. This last is probably the cause in your case.

**Spots on Dendrobium leaves (G.).**—The spots on your *Dendrobium* leaves are the evacuations of flies, which are often troublesome in the autumn when the cold weather drives them indoors. Not being able to recognise them as any form of scale we consulted two or three orchid cultivators on the matter, and they were all in entire concurrence with our views. On the leaf sent every spot was on the upper surface, which bears out the fly theory. When dried on the leaves they are very difficult to remove, the best remedy being soft soap and warm water.

**Bignonia grandiflora not flowering (R.).**—Your want of success in inducing the flowers of *Bignonia grandiflora* to develop is in all probability owing to the cold and sunless summers that we have had for the last two years. From this cause vegetation of all kinds has been very backward, and many autumn-flowering subjects failed to open properly. The protection of a glazed light in the spring might do something to hasten its growth, but in all probability if we have a hot and dry summer you will have no further cause for complaint.

**Planting Dahlias (G. D.).**—In the case of good strong roots they may be planted at such a depth that the crowns are 6 inches below the surface of the soil; at least, where it is of a light and sandy nature. The time of planting will to a certain extent depend upon the locality, but in most districts the middle of April is quite early enough, and even then a little protection in the shape of dried leaves or bracken is advisable. If you have accommodation it is a good plan to start the roots in pots, giving them the protection of a frame till all danger from frosts is over, when they may be planted out. It should be borne in mind that the Dahlia is a liberal feeder, hence in dry and sandy soils a good plan is to take out a hole about 18 inches deep, and mix some cow manure with the original soil before returning it, as cow manure is one of the best of stimulants for dry soils.

**Pruning a Yew hedge (G. D.).**—A difficult question to answer without seeing the hedge or knowing something of the height and diameter of the plants of which it is composed. Taking an average plant of 4 feet high as one's standpoint, the top shoots will in all probability need shortening back in order to ensure a bushy growth. Still, the Yew branches out so readily that this pruning should not be too severely done—that is if you desire the hedge to attain a greater height than it is at present. The side shoots, too, will need to be shortened; to what extent depends upon their present spread and the thickness you wish your hedge to be. In trimming the hedge it should be widest at the base and gradually sloping upwards, as by this means a maximum amount of light is ensured for the entire surface. A very suitable time for trimming a Yew hedge is the month of April, and if this is done every year a beautiful green surface is soon ensured. You have done quite right in allowing it to stand untouched since it was planted, but, as it will be by now thoroughly established, it should be clipped this season and every year afterwards.

#### CATALOGUES RECEIVED.

*Hardy Perennials.*—Messrs. Barr and Sons, King Street, Covent Garden, W.C.  
*Border and Rock Plants.*—Mr. Amos Perry, Hardy Plant Farm, Winchmore Hill, N.  
*Farm Seeds.*—Messrs. E. P. Dixon and Sons, Hull.  
*Bulbs.*—Messrs. H. C. Gibbons and Co., 131, Lambton Quay, Wellington, N.Z.  
*Seeds.*—Messrs. Cooper, Taber and Co., 90 and 92, Southwark Street, S.E.  
*New Daffodils.*—Mr. J. Kingsmill, Sharow, Ripon.

#### PUBLICATIONS RECEIVED.

THE *Studio* for March is as varied as usual; it contains many beautiful coloured supplements and other illustrations, besides the usual monthly notes from the studios that are so interesting to the art student. It maintains its high standard of printing and clear reproductions.

"Desert Botanical Laboratory Bulletin of the Carnegie Institution," "Report of Botanic Gardens and Domains of New South Wales," the *American Journal of Science*, and National Potato Society's pamphlet, containing suggestions for conducting trials of Potatoes.

#### TRADE NOTE.

##### BEE-KEEPERS' SUPPLIES.

MR. E. H. TAYLOR, Welwyn, Herts, issues a very comprehensive catalogue of bee-keeping appliances. These are illustrated and described in great variety. Mr. Taylor is prepared to estimate for the complete fitting up of bee farms. To fruit growers a bee farm is almost indispensable, very much larger crops of fruit being obtained, owing to efficient fertilisation of the flowers by the bees. Mr. Taylor has had great experience in bee farms, having fitted up the largest existing in this country, and will give personal attention and likewise find efficient men to carry on such concerns. He is able, with confidence, to advise those starting bee culture in the colonies, &c., thus enabling them to avoid disappointment and loss often experienced by exporting unsuitable hives and materials.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

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\* \* \* The Yearly Subscription to THE GARDEN is: *Inland*, 15s.; *Foreign*, 17s. 6d.

# THE GARDEN

No. 1688.—VOL. LXV.

[MARCH 26, 1904.]

## MUDDLED PLANTING IN LONDON PARKS.

**I**N these days, when an intelligent interest is shown in so many ways in the home gardens, we may reasonably expect sensible planting in the London parks, but unfortunately this is not so. Take one of the finest opportunities that exist, we should think, in the world for beautiful grouping and effects, namely, the peacock enclosure and surroundings at the head of the Serpentine. It is nothing more than jumbled groups of Holly and ugly weeping trees. A group of Holly is acceptable when rightly placed, but reasonable restraint and the right feeling are alone responsible for beautiful pictures.

Standing upon the fountain at the end of the Serpentine and looking towards the bridge, one pictures in one's own mind the beauty that might be gained by simple planting and restrained luxuriance where now is a hotch-potch of green-leaved Holly. Take the left side, and think how upon the gentle grass slopes one could group here and there herbaceous Phlox, scarlet Lobelia, Michaelmas Daisies, perennial Sunflowers, and many other stately flowers, with Daffodils in the grass by the water's edge. Between the flower groups we should plant one or more of the most beautiful of flowering trees—the Crabs, Guelder Rose, Weigela, Berberis, Spiræa ariæfolia, and Bamboos. Here and there we would plant the best of weeping trees, not those with branches that cling to the main stem, but those with graceful outlines and beautiful leaf. Although we strongly advise grouping in a general way, weeping trees are best apart, and not planted in groves or masses.

In the left corner, where a Weigela struggles for mastery with other shrubs, how beautiful would be the cardinal and golden Willows and crimson Dogwood on a winter's day, or the orange glow from the berries of Sea Buckthorn, whilst close to the water, with their feet almost in it, flowers that now give beauty to many a stream and river would flourish luxuriantly—rosy Loosestrife, Willow Herb, drifts of Meadowsweet, with occasional colonies of Globe Flowers, water Forget-me-nots, Siberian Iris, and the English Flag of our ditches and streams. This native wilding is now in tangled masses, but from these we know that vigorous flower life is quite possible even in the immediate neighbourhood of a vast city. We picture to ourselves this left bank planted

with judgment and good taste, giving its succession of flowers from the time of the Snowdrop until the Willows glow with colour in the grey winter light.

On the right hand such another simple scheme may be carried out, and where now is a villainous muddle there might be repose and beauty of form. Holly is everywhere, and planted so thickly that through want of air and light its stems are gaunt and sickly. In one place a huge Elder is swamping everything.

The whole of the present planting on the right bank should be swept away, or at least so modified that only the shrubs in good health are retained. There must be no half measures, and in the replanting we should keep in mind the beauty of the grassy sweeps through the trees in the unplanted parts of the gardens, and not obscure them with tall shrubs.

The general scheme should be kept low, with peeps here and there of the surrounding vistas, and bold groups of strong perennials on the banks, with, as on the opposite side, flowers in restrained luxuriance by the water's edge. Although Kensington Gardens are in London, there is so much open space that hardy flowers would thrive almost as well as at Kew. The Japanese Primrose would probably seed freely, and the colonies in the course of time need restriction. Japanese Roses in confused masses are quite happy already even in the choked shrubberies, so one is able to imagine how lustrous would be the leafage and how abundant the flowers when in a light and airy place.

One plant has run riot altogether. This is the Japanese Knotweed (*Polygonum cuspidatum*). It is a weed when permitted full licence, but in its place the graceful stems and creamy white flowers have much charm. At present it fights for the mastery with Laurel and Ivy, a tangle of common things, and collects the refuse from the water surface.

Matted growth by waterside is always a mistake. It fouls the water, and near such a city as London soon becomes unpleasantly apparent. Here are opportunities for planting clumps of Water Elder or wild Guelder Rose, white with bloom in early summer, and crimson with ruddy fruit in autumn, and also of the noble Royal and graceful Lady Ferns. The banks should be kept open and grassy, with occasional groups as here indicated.

An attempt has been made to use some of the plants of noble leafage, but everything is suffering from the general disorder. The great

Cow Parsnip (*Heracleum*) is magnificent when not smothered by neighbouring growths, and the same may be said of *Thalictrum flavum*, with its feathery heads of yellow bloom, the Gunnera, the Sedges, and the Bulrushes; but all must be planted in just those places that seem to suit their growth.

This famous sheet of water might be made pictorially beautiful with careful planting and wholesale condemnation of the existing muddle. The pond facing the Palm house at Kew has altered much within the past few years, and the water edge has been taken advantage of for the many plants that are happy in such positions.

There is no spot in any London park that offers such obvious facilities for pictorial effect as the stretch of water from the Bayswater end of the Serpentine to the bridge. It is in no carping spirit that we draw attention to this depressing and unwholesome hotch-potch, and this in what should be a place of beauty and interest. We ask anyone with a grain of right feeling for beautiful effects to look down from the pump station and see for themselves, and surely they will agree with us that this is as deplorable an example of thoroughly bad and wasteful planting as may be discovered in the whole range of public gardening. Better a thousand times to have left the grass in undisturbed possession of the gentle slopes than to have crowded into the prospect stunted shrubs dumped down anywhere and anyhow to add their quota to wild confusion and incongruity.

## GROWING SNOWDROPS.

SEVERAL questions are asked by "Rose of York" about growing Snowdrops in grassland, and the answers may be useful to others.

1. "Will Snowdrops planted in fairly long grass in an orchard and other similar places increase if they are allowed to go to seed?"

If the Snowdrops are doing well, and the soil and situation suit them, I do not find that seeding interferes with the increase of bulbs. If the Snowdrops were weakly, then no doubt the prevention of seeding (but preserving the leaves to ripen naturally) would help to strengthen the bulbs.

2. "Does seeding weaken the bulbs?"

If the bulbs are healthy and strong, and make good growth, seeding does not appear to weaken them. If the bulbs are weakly and making poor growth, then no doubt the prevention of seeding would be an advantage.

3. "Would it be a better plan to transplant the Snowdrops every few years, of course by dividing the clumps?"

Where the Snowdrops do well, and the bulbs increase freely year by year, no doubt the best way to increase the stock is to lift and divide the clumps when they get crowded with bulbs or too thick in the ground.

4. "Rose of York" says "he hardly thinks it worth while to leave Snowdrops to seed, and that the best way would be to divide and transplant the clumps every fourth year or so."

This question has been partly answered in the reply to No. 3, but with reference to leaving the Snowdrops to seed, I presume it is intended to increase the stock by that means. A good deal would depend on the fitness of the ground surface where the seeds fell for the germination of the seed. If growing among rough tangled grass the young seedlings might get choked or the seeds fail to germinate. Birds appear to eat a good deal of the seed, and colonies of Snowdrops frequently make their appearance under the trees where they roost. Trusting to natural seeding is rather a slow and sometimes an erratic means of increasing Snowdrops. Increase by bulbs is always surer, and the more satisfactory method of multiplying stock. D. MELVILLE.

*Dunrobin Castle Gardens.*

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### *Temperate House.*

ACACIA LEPROSA, *A. verticillata* var. *ovida*, and many others, *Arctotis aspera* var. *alba*, *Barosma foetidissima*, *Clematis indivisa*, *Cianthus puniceus*, *Coriaria nepalensis*, *Grevillea linearis*, *G. sericea*, *Hardenbergia comptoniana*, *Lissanthe strigosa*, *Melaleuca densa*, *Meryta Denhami*, *Pomaderris vacciniifolia*, *Rhododendron arboreum*, and *R. ciliatum*.

#### *Palm House.*

*Barringtonia samocensis*.

#### *Succulent House.*

*Aloe percrassa*, *Cereus amecameensis*, *Cotyledon pulvinata*, *Gasterias* in variety, *Kalanchoe carnea*, and *Protea cynaroides*.

#### *Orchid Houses.*

*Amblostoma cernuum*, *Angraecum sanderianum*, *Ansellia africana*, *Catasetum barbatum*, *Cologyne flaccida*, *C. huettneriana*, *C. lentiginosa*, *Dendrobium Boxallii*, *D. fimbriatum* var. *oculatum*, *D. gracilicaule*, *D. infundibulum*, *D. Johnsonae*, *D. linguiforme*, *D. Luma*, *D. Madonna*, *D. spathaceum*, *D. Williamsoni* and others, *Epidendrum chioneum*, *Goodyera procera*, *Masdevallia fulvescens*, *M. melanopus*, *M. schroederiana*, *M. triangularis*, *Maxillaria arachnites*, *M. houtteana*, *M. pieta*, *M. sanguinea*, *Oncidium concolor*, *O. lamelligerum*, *O. phymatocentrum*, *O. splendidum*, *Pelexia olivacea*, *Pholidota clypeata*, *Pleurothallis astrophora*, *Polystachya bracteosa*, *P. rhadoptera*, *P. pubescens*, *Selenipedium Titanum*, *Satyrium coriifolium*, *S. odorum*, *Scuticaria Hadweni*, *Spathoglottis aureo-villardii*, *Spiranthes elata*, *Stelis Miersii*, *Vanda suavis*, and *V. tricolor*.

#### *Range.*

*Caraguata cardinalis*, *Clerodendron myrmecophilum*, *Erica versicolor* var. *excelsa*, *Freesia Armstrongii*, *F. kewensis*, *Melaspheerula graminea*, *Ornithogalum biflorum*, *Sarracenia* in variety, *Tillandsia Lindenii*, and *T. splendens*.

#### *Greenhouse.*

*Acacia hastulata*, *A. pulchella*, *Boronia megastigma*, *Callistemon sulignus*, *Camellia*

*reticulata*, *Cianthus puniceus*, *Hippeastrum* in variety, *Leptospermum scoparium*, *Primula verticillata*, and many other things.

#### *Alpine House.*

*Anemone Pulsatilla*, *Auriculas* in variety, *Crocus Malvi*, *Draba Aizoon*, *D. aizoides*, *D. rigida*, *Erythronium citrinum*, *E. grandiflorum* var. *giganteum*, *Fritillaria aurea*, *F. citrina*, *Primula denticulata*, *P. d. var. alba*, *Romulea Bulbocodium*, *R. rosea*, *Saxifraga oppositifolia* var. *rubra*, *S. scardica*, *Scilla bifolia*, *Tulipa kaufmanniana*, *T. violacea*, and *Valeriana arizonica*.

#### *Rock Garden and Bulb Borders.*

*Anemone blanda*, *A. Hepatica*, *Draba cuspidata*, *Fritillaria askabadensis*, *F. Elwesii*, *Helleborus viridis*, *Iberis gibraltaria*, *Saxifraga apiculata*, *S. Kotschyi*, *S. Salomoni*, *S. sancta*, and *Tulipa kaufmanniana*.

#### *Arboretum.*

*Corylopsis himalayana*, *C. spicata*, *Erica arborea*, *Nuttallia cerasiformis*, and *Parrotia persica*.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).

April 12.—Brighton Horticultural Show (two days).

April 13.—East Anglian Horticultural Club Meeting.

April 19.—Royal Horticultural Society's Meeting (National Auricula and Primula Society's Show).

April 21.—Norwich and Birmingham Daffodil Shows (two days).

April 26.—Birmingham Auricula Show.

April 27.—Chesterfield Spring Show.

May 3.—Royal Horticultural Society's Meeting.

**The Orchid Stud Book.**—This work has been compiled by Messrs. R. A. Rolfe, A.L.S., and C. C. Hurst, F.L.S., with the object of providing a list of existing Orchid hybrids, arranged on a uniform system, giving the adopted name, parentage, original publication, with a reference to published figures, or other important additional information, raiser or exhibitor, date of appearance, and the synonymy. It is divided into two parts, Part I. giving an alphabetical list of parents with the names of resulting hybrids, and Part II. an alphabetical list of hybrids on the plan above mentioned. The work also aims at providing a standard of nomenclature for Orchid hybrids, as well as a ready means of ascertaining what hybrids have already been raised, and for these reasons it is hoped that it will be supported by those interested in this fascinating branch of orchidology. In order to prevent the work from becoming out of date it is intended to record all additions as they appear in monthly supplements in the *Orchid Review*, and these would naturally be incorporated in the body of the work in the event of a second edition being called for at a future period. It is hoped that this work will prove an effective means of checking the rapidly growing confusion in the nomenclature of hybrids, which so many deplore, and which we believe has largely arisen from the difficulty of ascertaining what hybrids have already been raised.

**Winter-flowering Heaths.**—Few plants flower more persistently than some of the winter-flowering Heaths, the weather appears to affect them scarcely at all. A bed of *Erica mediterranea hybrida* has been in full bloom for some two months past, and it is still as bright as ever. This is a free blooming, strong growing Heather, bearing many more flowers on a spike and lighter in colour than *E. carnea*. Although usually in Britain this Heath grows only about 18 inches to 2 feet high,

in the South of France it grows as freely as the *Laurustinus* does at home, and has there been recommended as a hedge plant. There are several varieties of *E. mediterranea*, for instance, *E. m. glauca* with glaucous foliage and almost white flowers, and *E. m. nana*, quite a dwarf plant. *Erica carnea* is now in flower also, and a patch of it makes a delightful display in the front of the shrubbery border or in a bed by itself. The pink flowers are closely set on the stem, and their beauty is much enhanced by the protruding dark brown anthers. *E. carnea alba* is of dwarf habit of growth. *Erica arborea* is just beginning to open. This Heath is a graceful plant, and even out of flower is noteworthy, as also is the rich green foliage and erect growth of *E. lusitanica*.—A. P. H.

### Crocuses in Princes Street Gardens, Edinburgh.

—Among the many improvements effected in the Edinburgh Public Gardens since the appointment of Mr. J. W. McHattie as City Gardener few have given greater pleasure to the inhabitants of Edinburgh than the introduction of displays of spring flowers in the Princes Street Gardens. Last year the Crocuses were much admired, a number having been planted through the kindness of a gentleman who gave a considerable sum to provide them as an experiment. So satisfactory was the issue that last autumn many more were planted, with the result that for some time the display has been very beautiful. They are planted either in masses of one colour or in mixed colours, and the effect, particularly of the well-known Golden Yellow Crocus, has been really fine when viewed from the Mound or the North Bridge, and from several other points of vantage on the opposite side of the city from Princes Street.

**Flower fete in Dublin.**—"La Floralie" is the name Lady Ardilaun has chosen for her flower fete, which takes place on April 14 and 15 in Dublin, in aid of the Royal Horticultural Society. Lady Ardilaun will preside over the Leinster stall, where the flowers from St. Anne's, Clontarf, and from Ashford, Lord Ardilaun's Galway estate, will be on sale. Lady Castlerosse will superintend the Munster stall, Lady Ashtown, who is noted as a Rose grower, will represent Connaught, and the young Lady Leitrim, who has done very little in a public way since her marriage two years ago, will take charge of the Ulster section.

**Leontice Alberti.**—The most showy and distinct species of this genus is *L. Leontopetalum*. This plant, however, is seldom met with, owing to the difficulty experienced in its successful cultivation, the tubers being unable to withstand our damp climate in winter except under the most favourable conditions and in a warm, dry situation. The subject of this note is a native of Turkestan, and its discovery is due to Albert Regel, who found it on the Western Alatan Mountains. To him we are indebted for several good garden plants from the same country, and the present plant takes its specific name from him. It is closely allied to the older and better-known *L. altaica*, and may be broadly described as a large form of that species. Introduced into this country nearly twenty years ago, it has not become a popular plant, and is still rare in gardens, being mostly limited to botanical collections. It is, however, perfectly hardy, and given a dry, warm position in sandy loam, planted so that the tuber is not buried beneath the soil, it makes a pretty plant, coming into flower early in March. The tubers are somewhat like a Cyclamen corm, depressed at the top, from which arise several stems and leaves. The stems attain a height of 6 inches or 8 inches, are naked below, with a pair of trisected leaves just below the conical raceme of yellow flowers. The sepals are the most attractive part of the flower, and they are six in number. They are yellow, and marked with red-brown lines on the back.—W. I.

**Staking Carnations.**—The illustration on page 228 is from a photograph taken in the famous Carnation nurseries of Mr. A. F. Dutton, Bexley Heath, and shows an improved method of staking Carnations, designed and patented by Mr. Dutton.



**Lachenalia convallarioides.**—Never was plant more happily named than this South African *Lachenalia*, for the small bell-shaped drooping flowers bear a great resemblance to the Lily of the Valley. They are white, tipped with green, and are produced in an erect raceme some 9 inches high. Several bulbs grown in a 5-inch pot make a charming display, the long, thick, rich green leaves, and Lily of the Valley-like flowers are so unique as to attract attention at once. Another valuable *Lachenalia* now in bloom is *L. Nelsoni*, which bears strong erect racemes of large pendent, flowers of a clear canary-yellow colour. For general culture this may be said to be the best.—A. P. H.

**Freesia Armstrongii.**—This is a charming *Freesia*, and one that is not yet to be generally seen in gardens unfortunately. It is quite safe to predict, however, that when it becomes cheaper and better known few will care to be without it. The petals are rosy lilac, the throat is white, and at the base of it there is a patch of yellow. As many as seven flowers are borne in a raceme produced by a well grown bulb. This *Freesia* is now in flower. Another one even more rarely seen is *F. Kewensis*, a garden hybrid, evidently with *Armstrongii* as one of its parents. It is a striking flower, the lobes of the petals rose-pink, and the throat yellow—a yellow so intense as to show through to the outside. This hybrid grows strongly. I have counted eight flowers upon one raceme, which speaks well for its vigorous constitution. The *Freesias* are among the most valuable winter flowers for the greenhouse, and the above-mentioned sorts deserve to be widely known on account of their beautiful colouring and the welcome variety they provide from the universally grown *F. refracta alba*.—A. P. H.

**Poor quality in last season's Potatoes.**—There is certainly ample room for the new National Potato Society to work in the direction of getting varieties of better quality, as I never remember a worse season in this respect. It is only fair to add, however, that the home grower is not to blame in many cases; it is the cheap imported tubers that are of such wretched quality. Owing to the short crop the importer this year can send us anything, but this should not be so when we have the means at home to grow varieties of much better quality; indeed, in many counties the land would grow splendid tubers. I do hope the Potato Society will take Ireland into serious consideration. Splendid results could be obtained there if more attention were paid to rotation of crops and change of seed. We have noticed that Potatoes lifted early, when the tops were diseased or ripened prematurely, are much poorer than those left until October, the usual date. It was risky, but it proved the right course, as of those lifted early quite half got diseased afterwards, whereas with those lifted in October we did not lose 1 cwt. in a ton, and the cooking quality is greatly superior.—G. W. S.

**National Chrysanthemum Society.**—This society is making a new departure, and adding one more to the number of exhibitions in its programme for the present year, by arranging for an exhibition of market Chrysanthemums, an aspect of Chrysanthemum culture which has developed into a huge industry. The market growers and salemen have been approached in the matter, and several representative men have given in their consent to the scheme. A special committee has been appointed, of which Mr. Robert Ballantine is chairman, to arrange the details and carry out such an exhibition. On consultation with the market growers and salemen, the date for this unique exhibition has been fixed for Wednesday, December 14 next, and, as it appeared desirable the display should take place as near Covent Garden as possible, the large Essex Hall, Essex Street, Strand, has been engaged for the purpose. A preliminary schedule of prizes has been prepared and issued among those immediately interested in the matter. An explanatory circular accompanies the schedule, in which it is set forth that should the response to the appeal for assistance be adequate, additions will be made to the schedule of prizes. The prizes to be awarded will

be the medals of the National Chrysanthemum Society. Though to be held with the sanction and under the auspices of the National Chrysanthemum Society, the expenses of the market show will be defrayed by voluntary contributions, a sufficiently large sum being already subscribed to justify the committee in issuing the preliminary schedule of prizes of seven classes, of which three are set apart for market growers, viz., (1) a collection of market Chrysanthemums in bunches, disbudded, to fill a table space of 12 feet by 3 feet, the bunches to be shown in vases; (2) twelve vases of market Chrysanthemums, in not less than six varieties, twelve blooms in a vase, disbudded; and (3) twelve vases of market Chrysanthemums, in not less than six varieties, not disbudded. The blooms exhibited in the three foregoing classes must have been grown by the exhibitors. Class 4 is similarly worded to Class 1, and is open to nurserymen and Chrysanthemum specialists. Class 5 is similarly worded, and is for market salesmen. The remaining two classes are open to all. One is for the best novelty in market Chrysanthemums not introduced prior to 1904, and it can be shown as a plant or in a cut state; but if in the latter character, it is desirable as much evidence as possible be forthcoming of the habit of growth. The other is for the best packed two boxes of cut market Chrysanthemums, one a box of blooms, the other a box of bunches. The market contributions will be on view during the afternoon and evening both, so as to be judged both by daylight and under artificial light. The latter will afford an opportunity for determining the colours most effective under the electric light.

#### THE FIRST VIOLET.

WHEN I espied the first Violet of blue,  
How sweet was its scent, and how lovely its hue.  
The herald of spring time I joyfully pressed  
With a hopeful heart to my swelling breast.

The spring is over; the Violet is dead—  
The Violet is dead.

Gay flowers bloom round me, blue and red,  
But scarce do I see them, or hear the birds sing,  
For the Violet appears in a dream of spring—  
In a dream of spring.

SYDNEY HESSELRIDGE.

—(From the German of Egon Ebert.)

**Iris fosteriana.**—From Gulran in Afghanistan comes this precious early March-flowering species. It is unmistakably a choice plant, and is well suited for a very warm position in the open. The striated leaves appear at the same time as the flower, which is most usually solitary on a stem 6 inches or, in very strong bulbs, 9 inches high. It is interesting to remark that quite small bulbs produce a flower of useful size. The flower is nearly 2 inches across; the leaves are at first flat, but strongly channelled in the upper half, deep shining green, with the margin conspicuously striated. The dominant colour of the falls and styles is yellow, the deflexed standards, which are large for the size of the plant, being reddish violet or purple. Not only in colour, but equally in size, are these standards of more than ordinary interest, and it is remarkable that the species is not abundant. I am indebted to Messrs. Cutbush for a flower of this charming *Iris*.—E. J.

**Children's flower show at Dundee.** Some time ago the criticisms directed against the children's flower show at Dundee were referred to in *THE GARDEN*. Whatever justification there may have been for the statements made that the flowers were not always cultivated by the children in whose names they were entered, there can be no doubt that the show is immensely popular with the young people. This year's show took place in the large Drill Hall on the 12th inst., and the increased number of exhibits evidenced the pleasure and interest taken in the exhibition by the children and their parents. The array of flowers was surprising, and in many cases the quality was of a high order. Hyacinths were by far the most numerous, but Crocuses and Daffodils were also shown in considerable numbers. Lord Provost Barrie presided at the opening ceremony, which

was performed in a graceful manner by Mrs. W. G. Baxter. There was a large attendance of members of the School Board and other public bodies, and the opinion was freely expressed that the cultivation of flowers by the school children of Dundee was deserving of every encouragement.—S.

**Spring flowers at Croydon.**—An exhibition of spring flowers, Daffodils being especially encouraged, will take place at the Art Galleries, Park Lane, Croydon, on Wednesday, April 20 next. The admission is free, the desire being to encourage a love of horticulture in every possible way in the district. The hon. secretary is Mr. H. Boshier, 62, High Street, Croydon.

**Rye district flower show.**—The second exhibition has been fixed for August 30 next. It is pleasant to know that the society is not in debt, in spite of a very wet day for the first venture. The president of this society is Mr. H. E. Burra, C.C., J.P., and the hon. secretaries are Messrs. F. H. Chapman and J. L. Deacon.

**Dielytra spectabilis** as a pot plant. Undoubtedly this is one of the most showy and useful of spring flowering plants both in the open border and under glass. Its easy culture adds much to its value. It may be had in bloom quite early in the year, and lends itself to many uses. Few plants give more effect than this when well placed. To see it at its best it should be on a raised position. This was brought forcibly to my notice on two occasions recently. In Forde Abbey now (the 9th inst.) we have a large plant, 3 feet to 4 feet each way, standing in a vase, and several smaller ones in other similar situations. In Messrs. Sutton's nursery recently I noticed they had put plants into a hanging basket with good results. I have seen the *Dielytra* growing on raised places in the open garden with equally good effect. Some think this plant unsuitable for furnishing, but this depends to a large degree upon the way it is grown. We make a point of growing them in a light airy place. In this way they grow firmly, and are very different to those brought forward in a close house. Plants grown thus remain in the Abbey three or four weeks by changing their positions.—J. CROOK.

**Iris reticulata.**—With each succeeding year one rejoices to see the richly-coloured blossoms of this *Iris*. The netted *Iris*, so called because of the tracery that stamps the outer coats or tunics of its bulbs, cannot be grown too largely. It is beautiful both in the open or in a cold house. Heat, and artificial heat especially, is hurtful. When grown without artificial warmth it is an ideal pot plant, as may be seen now at Kew, where some half dozen pots are devoted to it. But this early-flowering *Iris* has always been a favourite at early exhibitions, and it is nearly thirty-five years ago since I first took pots of it to South Kensington and the Royal Botanic spring shows on behalf of the late Mr. Robert Parker of Tooting. At Tooting this plant produced seeds in quantity, a good proof of its well-doing. At the time of ripening the seed capsule is acutely pointed at each end, and at the same period the leaves would be 2 feet or more long.—E. J.

**Prunus davidiana.**—This is the earliest ornamental flowering *Prunus* to open its blossoms, and it is on that account a most welcome shrub, and one that might advantageously be more generally planted in shrubberies and other parts of the garden. It is seen to the best advantage when placed so as to have a background of evergreen foliage, such as Hollies, Yews, Evergreen Oaks, &c. There is a tree of this *Prunus*, some 20 feet high, now in flower at Kew. It is planted in front of a semi-circular belt of evergreens, and against the dark foliage of these the beautiful pink blossoms are strikingly contrasted. The ground surface for some distance around is covered with *Euonymus radicans*, so that altogether this bit of careful planting is one of the brightest spots in Kew at the present time. There is a white form of *P. davidiana*, which, however, is not so satisfactory as the type. *P. davidiana* does well under glass, and makes a capital shrub for the greenhouse.—A. P. H.

**Strelitzia Reginae.**—The order Scitamineae, to which the *Strelitzias* belong, contains many showy plants, of which the following are

examples: Musa, Canna, Alpinia, Curcuma, Hedychium, Maranta, and Zingiber, this last furnishing the Ginger of commerce. Attractive as many of these are when in flower, none of them in this respect surpass the *Strelitzia* above noted. This has flowers suggesting in shape the head of a bird, and brilliant orange and purple in colour. They also remain fresh and bright a considerable time. From a foliage point of view, the stout leathery Canna-like leaves borne on long petioles are decidedly ornamental at all seasons. The flower-scape, which well overtops the foliage, sometimes branches at the apex, and bears a succession of striking blossoms. There is a variety *citrina*, in which the orange of the original species is replaced by a citron yellow. Though not so showy as the type, its distinctness at once claims attention. It is very rare, but has been grown at Kew for many years, and was, I believe, one of the plants introduced by Mr. Watson during his South African tour. This *Strelitzia* does well planted out in a warm greenhouse, as at Kew, while it may also be grown in large pots or tubs. A good soil is necessary, such as turfy loam two parts, well-decayed manure and leaf-mould one part, with a liberal sprinkling of rough sand. The typical species was introduced from its South African home as long ago as 1773.—H. P.

**Shrubs and hardy plants after forcing.**—Nowadays, when so many hardy shrubs, &c., are used to supply cut flowers during the early part of the year, there often arises the question what to do with them when out of flower. So very much depends upon whether they have been grown in pots or specially prepared the previous season. For early forcing nothing equals those grown in pots the year before. They then ripen better, and have a potful of roots to supply their needs. When taken up from the open ground it is generally just the opposite. Those imported when well prepared are satisfactory when brought on slowly. This year we had grand plants in bloom early in February of *Azalea mollis*, from plants grown in pots the previous season, whereas imported ones were greatly inferior. This being so, I would advise potting good bushy plants that have not been hard forced, placing them under glass till all danger from frost is over, when they should be plunged in the open. It is exposure to cold when taken from under glass that ruins them. Last year some *Azalea mollis* in pots that were in the open and started early into growth had all their young growths killed, but those put in a cold frame and kept moist soon made good growth. We have Lilac plants that have been in pots for six years, and bloom early every year, but these have shelter till frost is over. Any that are not fit for another year should be planted out thickly. The greater portion will come in for placing in borders or for growing on to force again.—J. CROOK.

**Plums, Cherries, and Peaches in flower indoors.**—Throughout spring the conservatory owes much to outdoor subjects, for, in addition to many bulbous and herbaceous plants which are really hardy but have been forced into bloom, there is a host of material in the hardy tree and shrub line which is well fitted for forcing for indoor decoration. Among those of the latter nature the various species and varieties of *Prunus* are in every way desirable, as much from their easy culture as from their floriferous character, many of them blossoming for several successive years if not very hard forced, and providing they are kept indoors to finish their growth after the flowers are over. Of the many cultivated species and varieties the following will be found to be the most useful for the purpose under notice: *P. japonica* var. fl.-pl., a native of China and Japan, making, when mature, large bushes 5 feet to 6 feet high. The flowers are double white and thickly clothe the whole of the previous year's wood. Though it grows to a large size it flowers freely when small, and excellent specimens can be obtained in 6-inch and 7-inch pots. Layers may be rooted outdoors, and if put down in March they may be forced the following winter. It can be had in bloom for Christmas, and a succession can be kept up until the end of March. *P. triloba* var. fl.-pl. is a pretty double flowered Chinese plant, and very

useful for this work. It belongs to the Apricot section of the genus, and has pretty pink flowers, which are nearly an inch across. It can be flowered when dwarf, but when fully grown it makes a specimen 8 feet high and the same through. *P. cerasifera* var. *atropurpurea*, perhaps better known as *P. Pissardi*, forms a lovely picture when studded over with pretty white blossoms and young bronzed-tinted leaves; it is not used for forcing so much as it should be. *P. pseudo-cerasus* is a large-flowered Cherry, with flowers often 2 inches across, and varying in colour from white to deep rose; there are numerous forms with single and semi-double flowers, one of the richest coloured being James H. Veitch. Other suitable Cherries are *P. Avium* var. fl.-pl. and *P. cerasus* var. *Rhexii* fl.-pl., both having double white blossoms, and *P. acida* and its varieties with single white flowers. The Almond (*P. Amygdalus*) can be forced into flower early, and makes a brave show, while the miniature Almond (*P. nana*) is useful, as it blossoms freely when but a foot or so high. The Peaches are a host in themselves, and can be depended upon to flower well. There are a great many varieties, those with double flowers being the most suitable, and these may be had with white, pink, rose, or red blooms. Of the newer species *P. subhirtella* bids fair to be valuable for forcing when it becomes better known, for it produces its blossoms freely and forces readily. To have these things at their best they should be grown in pots in a similar way to trees in pots for fruiting, taking care to mature the wood before turning them out of doors. If signs of deterioration appear a year or two in the nursery will often suffice to rejuvenate them. Though the sorts mentioned by no means exhaust the list, they serve to show what a wide field for selection the genus *Prunus* offers for forcing.—W. DALLIMORE.

**Erica carnea, Crocus Sieberi, and C. reticulata.**—In a note in last week's GARDEN I see that "A. P. H." is as interested as I am in winter combinations of flowers, and suggests Erica and Snowdrops. I have for many years made use of *Erica carnea* for winter beds, and I think the spaces between make cosy corners for all kinds of spring bulbs; but the beds I like best are those of *Erica carnea* filled up with the lovely *Crocus Sieberi* and *C. reticulata*. There is something wonderfully harmonious in the colouring of these lovely delicate mauve Crocuses and the somewhat wintry brown shade of the *Erica* foliage with its delicate pink flower-buds. The lilac *Crocus* fades before the full *Erica* blossom comes out to take the leading note of colour.—A. J. B., *Harrow-on-the-Hill*.

**Winter pruning competition.**—This annual event of the Madresfield Agricultural and Horticultural Club took place at the Cherry Orchard Farm recently. The trees were of the ordinary farm orchard type, probably twenty years planted, and which had been somewhat neglected hitherto, chiefly Blenheim Orange, Warner's King, Dumelow's Seedling, and King of Pippins. These annual competitions are held at the close of the course of the pruning demonstrations and technical instruction of the club. The competition is open free to all members or their nominees, whether on the Madresfield estates or otherwise, and is divided into three classes, viz.: Class 1, farm hands; Class 2, open to other than farm hands; Class 3, the champion class, open to those who have previously won a first prize in the open class. Two stewards (practical men) are appointed previously to allot trees varying as much as possible as regards their pruning requirements, but, on the other hand, necessitating about the same amount of work. Each competitor is allotted three trees, and allowed two and a-half hours in which to prune them. The trees having all been previously numbered, a ballot is held and the signal is given to commence. The judging was again entrusted to the very capable hands of Mr. James Dawes, gardener to Lord Biddulph of Ledbury, who has had large practical experience in this particular class of work, and whose awards, it is needless to say, gave every satisfaction. A large number of farmers and fruit growers were present, and took a very keen interest in the proceedings. There were thirteen competitors in the three

classes, some of whom appeared to have partisans of a sporting character. As each tree was finished by the respective pruners the judge made his notes for and against good work, but the final awards were not read out until seven o'clock, in the schoolroom, when Mr. Dawes gave a lecture upon "Pruning." He then most lucidly explained the many interesting features, *pro and con.*, of the work done by the various competitors to a large and intelligent audience. Many pertinent questions were asked, and a profitable discussion was the general verdict for the evening. The following was the list of prize-winners: Class 1, farm hands: First, J. S. Powell; second, J. Hall. Class 2, open to other than farm hands: First, A. Bradshaw. Class 3, champion class: First, C. F. Crump; second, H. Bishop. It was curious to hear the openly-expressed opinions of the large number of spectators during the afternoon, and to find how correctly many had prejudged the work of the pruners, which goes far to show the amount of sound information the club is spreading broadcast throughout the district.—W. CRUMP, *Madresfield Court*.

**Begonia Perle Lorraine.**—This is quite distinct from anything I am acquainted with. As grown at Messrs. T. Cripps and Sons' nurseries, Tunbridge Wells, it was most attractive. Plants about 18 inches high were smothered with soft flesh-coloured flowers. The largest leaves, on rather long stalks, are about 6 inches by 3 inches, of a deep bronzy green, the under side marbled with dark red, which shows through. The same plants have been flowering for some weeks, and they appear likely to continue for some time to come. It succeeds well in a temperature of from 55° to 65°, and may be flowered well in comparatively small pots. The plants referred to above were propagated from cuttings early last spring, and have made a free healthy growth, with the result that now, at flowering time, the true value of the variety is seen.—A. HEMSLEY.

**Cornus Mas.**—This spring-flowering shrub is very much neglected, and yet it is one that ought to be in every garden of any size. It is a native of Europe, perfectly hardy, and is always at home in any soil or situation. It makes a large bush, with slender, much-divided branches, which are covered in March with clusters of tiny golden-yellow flowers; these are individually small, but very striking in the mass. In a favourable season these are followed by the bright red fruits, which are about three-quarters of an inch in length, oval in shape, fleshy, and each containing one hard, stony seed. They are ripe in the autumn, and from their colour and conspicuous appearance have earned for this plant the name of Cornelian Cherry. The position of a plant in a garden has much to do with its popularity or otherwise, and this is strikingly shown by the position usually assigned to this *Cornel*. It is generally in a shrubbery in conjunction with other deciduous subjects, or rising above low-growing evergreens where its true beauty is never seen. To be seen at its best it should be planted in front of some dark evergreens, such as Yews or Hollies, which show up the delicate colouring of the flowers. There are five varieties of this *Cornus*, viz.: Var. *elegantissima*, which has leaves variegated with creamy white, and strongly tinted with red; var. *nana*, a dwarf-growing form, more curious than beautiful; and var. *variegata*, a striking plant, with leaves variegated with silvery white. Vars. *fructu-violaceo* and *xanthocarpa* have purplish red and pale yellow fruits respectively. *Cornus Mas* can be readily propagated by seeds or layers—the green-leaved varieties by layers, while the variegated forms do best when grafted on stocks of the parent plant.—J. CLARK, *Bagshot, Surrey*.

**Maize as an autumn vegetable.**—To get good Indian Corn in autumn the best way is to sow in spring, and grown thus the plant gives little trouble. I have heard it stated that it is useless to grow the Indian Corn in this country, and this is true as regards ripe Corn, but this does not apply to the use of Maize as a vegetable, especially if the grower can sow in a frame and transplant out in May. The plant is very tender, and it requires warmth and moisture to perfect the

green cobs. In spite of the cold summer last year I saw some splendid home-grown Maize; the seed was sown late in March, and planted out two months later. In a favourable season good results follow a simple rough-and-ready mode of culture; that is, sowing in rich soil in a sunny position late in April or early in May in rows or trenches 3 feet apart. Place the seeds (several together) 18 inches apart, and when well above the soil leave all but the strongest. Abundance of water and liquid manure also in dry seasons will build up fine cobs, and if some of the dwarfier sorts are grown they may be had fit for the table in September or earlier. It may be thought at the season named that we have no lack of good vegetables, but my contention is that the more variety available the more interest is taken in the kitchen garden. In these days, when owners of gardens travel about, they see the value of such vegetables, and if home-grown they are certainly appreciated when well served.—G. WYTHES.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

A NEW IVY-LEAVED PELARGONIUM.

Mr. J. Fisher, the Grove Nursery, Lewisham, sends flowers of a new variety, named Princess of Wales. The flowers are delicate lilac-rose in colour, double, but the petals are not too closely packed, and very bright. It is free blooming, and one of its parents is Mme. Crousse.

TULIPA KAUFMANNIANA.

Mr. Perry, of the Hardy Plant Nursery, Winchmore Hill, N., reminds us of the beauty of this Tulip by sending a boxful of flowers. Curiously we illustrated this species last week from a drawing by Mr. Moon. *T. kaufmanniana* is a delicately beautiful Tulip; it is dainty in shape, and the colouring is fresh and unusual, varying somewhat according to the variety, one has more yellow on the inner surface of the florets, and another a broader and richer striping of red on the outer side, but this only increases the charm of a good Tulip.

A FORM OF ANEMONE CORONARIA.

Sir Charles Robinson, C.B., Newton Manor, Swanage, sends an abnormal flower of a scarlet Riviera Anemone. It is scarlet and white, and our correspondent's suggestion as to its origin is probably correct. The following note accompanied the flower: "I enclose a bloom of scarlet Riviera Anemone, which seems to me rather an abnormal one, and is in any case very beautiful. When first gathered the petals were reflexed in a quite regular way, giving the flower a very unusual and charming effect. The plant is a very young one, and perhaps a seedling. It is in close proximity to a large bed of St. Brigid Anemone. Could it possibly be a hybrid from them?"

WEBB'S PERFECTION PERSIAN CYCLAMEN.

Mr. R. Milner, Margam Gardens, Port Talbot, sends superb flowers of the Persian Cyclamen with the following note: "This strain of the popular Persian Cyclamen is really perfection. From seed sown in July, 1902, we have had a hatch of plants which have been admired by everyone who has seen them. Many of the plants carry from fifty to sixty blooms each, of large size and great substance, and of the most charming colours."

NARCISSUS SPRENGERI VOMERENSIS—A NEW HYBRID.

Mr. William Muller sends a most interesting contribution, namely, flowers of the hybrid *Narcissus Sprengeri vomerensis*, which is a cross between the wild *Narcissus N. pseudo-narcissus* and *N. tazetta*. Our correspondent describes it as "very free and tall." Unfortunately, the flowers were somewhat faded when we received them, otherwise we should have made a drawing from them. The flowers are a deep golden yellow colour, generally three on a stalk, and very fragrant. It is a welcome hybrid, and its earliness counts for much.

ARUM PALÆSTINUM TRICOLOR.

Mr. Muller also sends leaves of this new variety of *A. palestinum*. The leaves are finely variegated, and have much beauty. Our correspondent says "the plant is growing here (Vomero) in a half-shady part of the garden of Mr. Sprenger; it rivals the most beautiful *Caladiums*, especially when in flower." The black or dark brown flowers, with the white foliage, are very distinct.

A BEAUTIFUL INDOOR RHODODENDRON.

Messrs. Fisher, Son, and Sibray, Handsworth, near Sheffield, send flowers of a beautiful new indoor *Rhododendron* raised by them and named

THE ROCK GARDEN.

ROCK GARDEN-MAKING.

XVII.—HOW TO IMPROVE NATURAL ROCKS.

NATURE is so perfect in her works that to write about making improvements on natural rocks would seem foolish. Yet it often happens that a piece of ground as left by Nature is quite unsuitable for both gardening and building until considerable alterations have been effected. Especially is this the case in districts where steep hills and natural rocks abound. To obtain a level spot for building the house under such circumstances means not infrequently an enormous amount of excavation, and, if the ground to be excavated is of a naturally rocky nature, the difficulties are still further increased. For the same reason the approach to a house built under these conditions often entails a considerable number of obstacles being overcome, not the least of them being the necessity for a gradual and easy ascent to the house. Carriage drives leading to houses built on steep hills are often ugly



SIR GEORGE NEWNES'S ROCK GARDEN AT LYNTON, NORTH DEVON, SHOWING HOW STIFF SLOPES WERE MADE MORE ATTRACTIVE BY EXCAVATIONS AND ADDITIONS.

Duchess [of Westminster]. It has been in bloom since November last, and may be described as perpetual flowering. It is fortunate that this is so; the flowers are in clusters, and their rose-pink colouring is delightfully fresh and winsome. It is the clearest in colour of any of its race, and that is saying a good deal in these days of increased interest in hybridising to acquire new forms. *Rhododendron Duchess of Westminster* is a variety that will give just the right colour for personal wear as well as making a bright show in the plant house or indoors.

THE BUTCHER'S BROOM IN FRUIT.

We are reminded of the beauty of this bush (*Ruscus aculeatus*) in fruit by several shoots from Mr. Ferrington, Bryn Bella, St. Asaph. Our correspondent says "the bush has been a mass of berries since November, and is a beautiful picture when the sun is shining on it." This we can well believe. The Butcher's Broom, like many common things, is frequently passed over for much inferior shrubs. Its green colour has a certain welcome warmth, and the berries, which are as large as small Cherries, have a deep crimson glow.

and zigzag, which mar the otherwise picturesque natural scenery. In other cases it may happen that in order to get the desired gradual ascent a deep cutting through rocky soil has to be made, in which case the rocks are generally sloped back to ensure their stability.

From merely a practical point of view this treatment might suffice, but it would, of course, be opposed to picturesqueness, because rocky slopes under these conditions would always more or less resemble a railway cutting or embankment. The rocks left may be natural enough, but the cutting of the drive and the regularity of the slope spoil their shape and made them barren and ugly. Especially is this the case when such a cutting is of considerable length, and therefore becomes very monotonous in appearance. It is in cases like these that one wants to give the stiff and ugly slopes a natural outline, partly by excavating and removing portions of the existing rocks or stony soil, and partly by adding other rocks built up artificially, but harmonising with the

surroundings in such a way as to obliterate all traces of artificial interference.

To do this successfully requires, in the first place, a careful study of the rocks in question; secondly, a careful selection and a still more careful manipulation of the additional stones to be used; and last, but not least, a judicious partial covering of both old and new rocks with suitable plants. To look natural the stones used must be in every respect similar to the existing rocks, and if loose pieces, which have long been exposed to the weather, can be obtained, so much the better. Sometimes it may happen that such stones can be quarried on the site itself, and those removed from portions of the slope where excavations took place form the building material for projecting parts of the new work.

I have pointed out in previous chapters that the greatest charm of a rock garden consists in variety of form, and, to ensure this, when treating a monotonous slope the irregular forms should be emphasised as much as possible. When, for instance, projecting rocks are adjacent to a deep recess, the one will emphasise the other. Then, again, if in places the rocks can be intercepted by intervening grassy banks or dense masses of plants, a further step towards natural effect will have been obtained. If the natural rocks in the slope to be treated are of the unstratified or igneous kind, the work of arranging the new material will not be so difficult as when the rocks belong to the stratified or sedimentary class. In the latter case the new work must, of course, show the same kind of stratification as the old existing rocks, with which it should blend in such a way that it would be impossible to tell exactly where the old part ends and the new part begins.

Since practice is better than mere theory in this work I think I cannot do better than give an actual example of such work. The accompanying three illustrations represent a portion of the grounds at Hollerday, Lynton, the Devonshire estate of Sir George Newnes, Bart.

Hollerday is situated on a lofty hill commanding a view of magnificent scenery, consisting of huge rocks, woodlands, and picturesque seascapes and river scenes. To reach the mansion a carriage drive had to be cut through a hill of rocks. In places this cutting is over 20 feet deep, and though the rocks were sloped back their appearance could, nevertheless, be compared with nothing else but that of the deep railway cuttings which are so abundant in this county. With a view to improving the somewhat stiff and unattractive appearance of these slopes extensive excavations were executed here and there, and in other places additional projections were built so as to resemble the original natural rock, but imparting to the latter a more rugged outline. Such a projection is shown on the left in the foreground of the first picture. This picture shows the beginning of the carriage drive photographed from immediately inside the main entrance. By way of balance, but without being symmetrical, smaller projecting rocks were also introduced on the right hand side of the drive, and these are visible in the picture jutting out from a mass of plants intermingled with stretches of green sward. In the distance, at the bend of the drive, two irregular cave-like recesses were

produced by simply making excavations into the existing rocks, which, like the rocks of the whole district, consist of the rugged Devonian slaty grit known as bastard shale. How this kind of stratified rock has been metamorphosed by contact with igneous rocks I have shown in Chapter VII. (see THE GARDEN of March 7, 1903), when illustrating precisely the same kind of rock as occurring naturally in Mr. Ford's garden at Lynmouth. The stones gained through excavations in Sir George Newnes's ground were for the greater part too small, but as other weatherbeaten stones of similar appearance could be had in abundance close by I naturally preferred to use the latter.

The second illustration is from a photograph taken near the further end of the same drive. In this case a straight hedge ran along the top of the stiff slope, but by removing this hedge and by producing a large depression—after-

in the foreground are quite 20 feet high, and, as the illustration shows, were made irregular through excavations in the form of large and small cave-like recesses.

In adorning these rocks bold plants with arching branches, such as *Rosa setigera*, various Briars, rambling Roses, *Rubus deliciosus*, and others were put on the highest rocks, where their drooping clusters might show to the best advantage. Lower down, and more on a level with the eye, many hundreds of smaller rock shrubs and alpine plants too numerous to mention were introduced. In many places planting in the ordinary way would have been impossible, and it was necessary to make holes by means of bars or chisels for soil for the plants. Colonies of *Androsaces*, *Thrifts*, *Phloxes*, *Aubrietias*, *Dianthus*, &c., already look established, and, in conjunction with *Wallflowers*, *Valerians*, *Ferns*, and other things in the rougher parts, give fair promise of a bright show of flowers during the present season. Sowing seeds into chinks and fissures has also been tried, and good results are anticipated.

F. W. MEYER.

## THE LILIES.

(Continued from page 164.)

**L**ILIUM HARRISII.—See *L. longiflorum eximium*.

*L. Henryi* (Baker), Dr. Henry's Lily.—A magnificent Lily from Western China, and without doubt one of the best finds in recent years. Bulbs conical, very large, coloured vinous purple, blackening with exposure, the scales thick and clasping. Stems purplish, 5 feet to 14 feet high, showing a disposition to climb as they pierce the soil, but eventually becoming very erect, flexible, and rooting freely. Leaves lance-shaped, often with prolonged tips, and occasionally rolled or recurving, dark green, shining, 6 inches to 10 inches long. Flowers arranged in a compound panicle, coming from a cluster of purplish-tinted bracts, the foot-stalks varying from 3 inches to 18 inches in length, drooping, and very thin. The petals are equal in size, varying in colour from pale to rich orange, keeled, green externally, reflexing fully to display the long petaloid processes which adorn the interior of the flower and the marginal spotting of dark crimson. A green star-like nectary adorns the centre of the flower, and the filaments and styles are also green tinted.

The flowers vary a little in every detail; some have long curved processes arising from the face of the petals, others scarcely any, some reflex fully to form a perfect sphere, and others remain semi-reflexed. Colour variations are not so marked a feature. Of the many hundreds we have flowered, two only, both lemon tinted, showed any considerable difference in colour from the majority. Common in cultivation. Flowers in August and September. Inhabits, according to Dr. Henry, a restricted area in the neighbourhood of Ichang, where it grows on the grassy slopes of precipices and glens at low altitudes. The wilding never reaches the vigour of the cultivated plant.

**CULTURE AND USES.**—The cultivation of *Lilium Henryi* calls for no especial remark save that its growth is unusually precocious.



SIR GEORGE NEWNES'S ROCK GARDEN AT LYNTON, NORTH DEVON. EXISTING ROCKS ALTERED IN SHAPE BY A LARGE DEPRESSION, AND THE ADDITION OF FRESH BOULDERS AND LAYERS OF STONE.

wards covered with sward, boulders, and new groups of stratified rock carefully grafted, so to speak, to the existing rocks—a totally different and much more pleasing effect was obtained. Indeed, although the plants have hardly commenced to grow, it would already be difficult to tell the new work from the old, even where both meet.

The third illustration represents still another view of the drive, *i.e.*, looking downward in the opposite direction to that given in the first picture. The larger projection in the foreground of the first illustration is in this third picture seen in the distance on the right. The building (of which only a small portion is visible) is outside the grounds; it is the fine Town Hall presented by the generous owner of the estate to the town of Lynton. The rocks

In exposed places it is necessary to protect them from frosty winds, but if we associate this plant with strong-growing herbs and low growing shrubs at the back of the plant border, or in the cultivated shrubbery and the many other places where a vigorous Lily could grow amid protective plants, it will take care of itself. We have seen plantations of *L. Henryi* in the coldest parts of Scotland thriving really well, and, although they did not reach the tall stature (often 12 feet) that this plant attains when planted in a conservatory border, they were in excellent character, and we feel certain there is no garden in Great Britain that would not grow *L. Henryi* tolerably well. Although excellent as a border plant, it reaches its finest development in large pots in cool conservatories; there its tall stems, bearing massive, drooping flowers of rich colouring and exquisite form, are remarkable when we consider the uniformly low stature and comparatively poor flowering qualities of the plant as a wilding. The bulbs should be planted fully 8 inches deep, wherever grown, and the surface soil should be liberally enriched for the better maintenance of the incredible amount of stem-roots the plant makes. We consider this to be the only Lily that can be artificially fed *ad lib.* without injuring the plant.

*L. Humboldtii* (Roetzl and Leicht.), Humboldt's Orange Lily.—A grand plant from the Sierra Nevada range of Central and Northern California, and introduced long ago to European cultivation. Bulbs ovoid, laxly built, often as large as a Coconut, sometimes rhizomatous in the wilding plant, but always ovoid under cultivation; the scales oblique, sickle-shaped, 3 inches to 4 inches long, reddish, not at all contracted; roots very stout, contractile, pulling the growing point deeper into the soil every season, thus giving to the bulb its peculiar curvature. Stems 4 feet to 6 feet high, stout, ruddy brown, rooting sparsely from their bases. Leaves arranged in four to five distant whorls, blunt, coloured a peculiar tint of bluish green. Flowers nodding as in *L. speciosum*, and arranged in a pyramidal raceme of six to twenty, coloured rich orange, darker at the reflexing tips, spotted regularly with large vinous red dots in the lower half of each petal. The reflexed flower spans 6 inches to 8 inches across. A very beautiful Lily. The bulbs require two years' cultivation to induce them to flower well after removal. Common in cultivation. Flowers in July. Grows as a wilding in various harsh soils of volcanic formation and in various situations of the Sierra Nevada ranges, generally in association with scrub on woody plateaux, reaching its finest development where leaf-soil has congregated, and always on well-drained slopes.

*Var. bloomerianum* (Bloomer's *L. Humboldtii*). A good form. The small bulbs are certain to flower well the first season of planting. Bulbs, leaves, and stems as in *Humboldtii*, but much smaller. Flowers pale yellowish orange, 4 inches across the fully reflexed petals, the vinous red dots having a distinct yellow ring around each of them. Common in cultivation. Flowers in July. Inhabits the mountains of San Diego, California.

*Var. magnificum*.—The magnificent *L. Humboldtii* is a splendid geographical form, inhabiting the mountains of Southern California. The bulbs are purplish, jointed, not so large as those of the type, but of similar formation and habits. The stems and leaves are also identical. Flowers rich orange, heavily spotted with dark plum-purple, the dots set in a broad ring of crimson. A fine plant, and in our judgment the best of all the

forms of *L. Humboldtii*. It flowers well the first year after planting, but its inflorescence should be reduced or the bulbs will be unduly taxed. Common in cultivation. Flowers in July.

*Var. ocellatum* (Kellogg).—Does not differ materially from *L. bloomerianum*. Both this latter plant and *var. magnificum* are often called *ocellatum*. Their spots, though different in tint, represent the colour scheme of an eye, hence the name.

**CULTURE AND USES.**—It is not too much to say that, with present cultivation, we shall never be able to establish Humboldt's Lily in our gardens. The peculiar characteristics of its native habitat are extremely difficult to imitate in most places, and one has only to study the peculiar shape and build of the bulbs, their manner of rooting and growth, and the contractile nature of the older roots to discover that the plant has found it necessary to adapt itself to the peculiarities of its natural situation, and one could describe the situation with fair accuracy from study of the bulbs alone were it necessary. Situations that we would recommend for this Lily are the lower reaches of rockeries, sharp slopes covered with shrubs, either of natural or artificial formation, and not necessarily high, so long as there is an incline. Soils should be tolerably rich, and if they are on rocky formation so much the better. We have found with this plant, as with *columbianum*, that the only way to grow it is to plant the bulbs on the side of an artificial ridge, the feeding extremities of the roots pointing inwards, the growing point downwards. Thus treated, it develops well and establishes itself, whereas in the open border it absolutely refuses to grow. Its varieties, happily, make excellent growth the first season, and for these also a similar plan is advisable. We have seen a few examples of *L. Humboldtii* in various districts, where the bulbs were surrounded by the roots of shrubs, and the surface soil cultivated to give the Lily assistance. The borders were raised above the

general level, conditions closely resembling those of the ridge system of culture. This Lily is not suitable for pot culture.

G. B. MALLET.

(To be continued.)

## THE FLOWER GARDEN.

### CORRECT PLANTING.

IT was some time before I could decide on a heading for the following notes, the choice between the two suitable adjectives "correct" and "careful" seeming to me a difficult one, but I eventually selected the former, being of opinion that anything done correctly must necessarily have received all due care and thought in its execution.

Just now, when most of us gardeners have in hand more or less planting of new subjects or of detached portions of old-established ones, it is a matter of vital importance that each shrub or flower shall find its new home in congenial soil and surroundings, and that its roots shall be treated with the utmost care and consideration at planting time, in order that their prompt and vigorous action may ensure its future welfare.

Too often no places have been selected for the newcomers and increasing stock, and we race wildly about the garden, trowel or spade in hand, till in our despair and hurry we select the wrong spot, putting a shade-lover in the full glare of the sun or a sunny alpine in a dark clayey corner with quite vindictive prodding and jamming (as if the poor plants were to blame), and then rush off to the basket for another victim! *Experto crede!*

Now I venture to submit that when the long-expected consignment does arrive from kind friends or the nurseryman, everything should have been got ready—labels written, if possible; loam, peat, sand, and stones collected in sufficient quantities; tools kneeling-mat



CARRIAGE DRIVE THROUGH SIR GEORGE NEWNES'S ROCK GARDEN AT LYNTON. STEEP ROCKY SLOPES ALTERED BY EXCAVATIONS.

and barrow waiting; and last, but not least, the sites for the new things selected, at least approximately.

This is asking a good deal, it may be said, and it will not always be possible, even in the best-ordered garden, to be in such an elaborate state of preparation. For, of course, one does not invariably know what shrubs and plants are actually coming. Unexpected presents arrive from friends, and nurserymen often send extra plants, and sometimes (though rarely, I am thankful to say) are "out" of some particular desideratum. But in most cases an intending planter can form a fairly accurate estimate of what is coming, and can do a great deal beforehand, thereby lessening his work and saving his nerves considerably by having a good "think" while walking round his garden and noting all available blank spaces. And if he has ordered or is expecting plants requiring careful and thorough drainage below their roots, such as some of the smaller Campanulas, Polemonium confertum, Ixias, and a host of alpines, Lilies, &c., he can collect his stones, clinkers, or brick rubbish, and the suitable soil, and prepare the selected sites deliberately and with loving hands, or superintend closely the work as it is carried out by his gardener. Under these conditions the substratum of drainage material is well and truly laid (with perhaps just that suggestion of a sloping base that makes so much difference in a wet autumn and winter), the layer of rough peat or inverted turf is homogeneous and of uniform thickness, while the compost is thoroughly mixed and comfortably settled down in its bed. Contrast this desirable state of things with the hurried, if not "happy-go-lucky," mode of procedure of the unprepared, especially when putting in new plants against time in unfavourable weather.

He dives vigorously into the bowels of the earth, probably slicing and uprooting bulbs and plants on his way, tearing out a hole of insufficient size, into which the stones or bricks (and perhaps the new plants too, for they are sure to be laid down in an awkward place and get in the way) are hastily tumbled and adjusted into an imperfect layer. Then the turf or peat has to be fetched, the soil mixed, and the label written. In short, the entire process is not only vexatious, but likely to result in whole or partial failure.

These scathing remarks mainly apply, of course, to those of us who like to do our own planting, but the principle I contend for is the same, for the amateur and his gardener alike, and I do not think I have said too much, for have I not gone through it all myself, alas! very often, and am I not now trying hard to practise as I preach?

It would be well, perhaps, if we all took a little more trouble in the actual putting in of our shrubs and flowers when their places are all ready for them, especially our delicate or "miffy" ones. Alpines and rock plants generally cannot be too carefully planted, and such useful hints as those recently given in THE GARDEN by Mr. F. W. Meyer in his articles on "The Rock Garden" are especially to the point.

There are other excellent sources of information available from which we may learn how to grow a host of desirable things, even *Eritrichium nanum*, *Phyteuma comosum*, and *Epigæa repens*, and I will not presume to take up any further space with remarks on the subject of planting in general; but, if permitted, I should like briefly to give my experiences with the planting and cultivation of a few well known but perhaps somewhat difficult subjects which I have by good luck persuaded to flourish in my small garden.

*Gentiana acaulis*.—The glorious *Gentianella* is everybody's flower and we must all have it, but we do not all know how to ensure success with it, especially in light soils. With me it grows but rarely flowers in a peat border, and I have gradually removed and broken up nearly all the clumps, setting the plants out in soil they do like along the borders in a hard, well-trodden loam mixed with a nearly equal portion of gravel. When a new edging of *Gentianella* is made here, as is frequently the case, I fear the adjoining gravel paths are most ruthlessly scraped and robbed! This addition of pebbles and firm treading of the soil is doubtless well known to most of your readers, but some may be glad, as I was a few years ago, to hear of it. I hardly ever lose a plant or fail to secure a fair bloom now.

*Gentiana verna*.—This is by no means an easy thing to establish, but the same thoroughly firm soil and admixture of stones recommended for the *Gentianella* is the secret of success. Planted in full sun on a very gentle slope slightly raised above the border, in a mixture of good loam, a little peat, sand, and broken limestone, well pressed down or beaten with the spade, this lovely species has prospered here, and delighted us all with an annual feast of divine blue flowers. The plants growing next to the edging-stones of the path have sent out some underground side shoots, and are showing every sign of happiness. If planted carefully under these conditions between bits of stone and well watered almost daily during the summer, everything in the shape of a weed being scrupulously extracted from the sacred precincts, it seems to me that we can all grow this alpine gem successfully. Of course, it goes without saying that there is a correct time for planting (about November), and that it is no good putting in weak or badly-rooted specimens. They should be established in pots, and carefully transferred from these direct to their new homes.

*Nierembergia rivularis*.—Last summer I sent a photograph, with a short explanatory article, of my clump of this pretty flower in full bloom to THE GARDEN, but at the risk of repeating myself I venture now again to describe what I consider to be the causes of my success. In the first place, like the two preceding species, *N. rivularis* likes full sun, plenty of water in summer, and a thoroughly firm loamy soil. It also delights to dive under the edging stones into the gravel path, where it flowers superbly, while it has been evident that those portions of the clump which are adjacent to the stones bloom the most freely. Therefore I have this winter added pieces of stone of some size and a layer of gravel throughout, and hope for even better results in future.

Yalding, Kent.

S. G. R.

(To be continued.)

## NOTES ON HARDY PLANTS

### SAXIFRAGA LILACINA.

**R**EPRESENTATIVES of this fine genus in cultivation from the Himalayan region are few in number, and consist chiefly of members of the large-leaved or *Megasea* section. This region, however, is the home of many fine species, but owing to the great distances and difficulty of reaching their habitats, as well as of the successful transportation of the seed when collected, they have yet to be introduced into this country. In the present new species we have a totally different

type of plant, one that forms dense cushion-like tufts similar to the well-known European species *S. caesia*, *S. tombeanensis*, and *S. squarrosa*, but with flowers somewhat after the style and nearly as large as those of *S. oppositifolia*. The combination of crusted foliage and rose-coloured flowers is uncommon, the European species with this kind of leaf having mostly white or yellow flowers, with the exception of *S. media*, *S. porophylla*, and *S. Griesbachii*, which have small dark red flowers. Seeds of *S. lilacina* were collected at a high elevation in the Kumaon Himalaya in 1899, and were received at Kew in the spring of 1900 from the Government Botanic Garden at Saharanpur. Only a few seeds germinated, and have now formed tufts 2 inches or 3 inches in diameter, flowering for the first time in the alpine house early in March. It was received under the name of *S. ramulosa*, and bears some resemblance to that species in its tufted habit, but the latter plant has yellow flowers. On comparison with herbarium specimens it was determined to be a new species, and given the present name by Mr. Duthie, who until recently was Director of the Botanic Department of Northern India at Saharanpur. The leaves, densely packed on short stems, are very short and fleshy, concave on the upper side, with 2-4 chalk pits on the margin near the apex. The flowers are borne singly on stems about 1 inch high. These stems, as well as the obtuse sepals, are glandular, and are furnished with 2-3 very small leaves. The light rose-coloured petals are obovate, with deeper coloured lines traversing them. It has so far been grown in a cold frame, under the same treatment usually accorded to small-crusted *Saxifragas*, but has not yet been tried outside, although it will probably prove hardy enough.

W. IRVING.

## THE ALLIUMS.

**A** VERY extensive genus is the Onion family, comprising in all over 300 species. Regel, in his monograph of the genus in 1875, enumerated 263 species, since which time quite fifty more have been found and described. They are distributed over Europe, North Africa, Abyssinia, Asia, North and Central America, but their headquarters appear to be in the Orient; Boissier, in his flora, giving 139 species; Europe, according to Richter, is the home of 80 species; while America claims 50, and the Himalayas 27.

Although, generally speaking, the members of this genus are not what may be called "decorative" in the highest sense of the word, a few of them are pretty and attractive enough for use in the rock garden, or for naturalising in the wild garden or open woods. Others are more striking and may with justice be called handsome, but the great majority are quite worthless from a garden point of view, being also characterised by a most offensive smell.

They are hardy bulbous plants of easy culture; many are perennial, and others are of biennial duration, with flat or rounded leaves and capitate heads of flowers. They may be readily increased by offsets, bulbils, or seeds. The genus has an economic value as well, the well-known Onion, Leek, Shallot, &c., having their origin in species belonging to this genus. The following list includes all the best species in cultivation:

*A. acuminatum*.—A native of North-Western America and a pretty, small growing plant, remarkable for the long, acuminate points of the flower segments. About 1 foot high, with narrow, Rush-like leaves as long as the flower

scape, with the flowers borne in loose umbels in July. These are rose-coloured, with darker shaded points, and there is also a variety with deep red-purple flowers. A pleasing feature of this plant is the absence of the unpleasant smell pertaining to most of the species. It has been in cultivation since 1840.

*A. albopilosum*.—This recently-introduced plant is the most handsome one belonging to this genus yet introduced to our gardens. It is a most imposing species, with leaves 18 inches long and 1 inch to 2 inches wide, glabrous on the upper surface, with long, scattered white hairs on the under side, from whence it receives its name. The scape is stout, from 1 foot to 2 feet high, and bears large umbels up to 9 inches or more in diameter, each containing fifty to eighty or more flowers. These are large for the genus, nearly 2 inches in diameter, and deep lilac in colour. This species was collected for Messrs. Van Tubergen, of Haarlem, in the mountain range that divides Transcaspia from Persia, in 1901, and flowered for the first time in this country with the Hon. Charles Ellis at Haslemere in June, 1902.

*A. Ampeloprasum* (wild Leek).—A strong growing species, with dense globular umbels of pale purple flowers. A native of Europe and the Orient, it is naturalised on steep Holmes Island, in the estuary of the Severn.

*A. Ascalonicum* (the Shallot).—A dwarf plant, with globose umbels of purple flowers, and was introduced from Palestine in the middle of the sixteenth century.

*A. atropurpureum* is a distinct species, with flat leaves and strong scapes bearing rather loose heads of dark red flowers on long pedicels. A native of Hungary.

*A. cabulicum*.—This belongs to the section *Molium*, which includes the British *A. ursinum*. It produces a broad, Tulip-like leaf 6 inches to 8 inches long and 2 inches broad. On a round scape 3 inches to 4 inches high the dense globose umbels of flowers are produced. These are whitish, with a keel of red-brown on each segment, which is finally reflexed. A native of Kabul, it was introduced in 1892. *Botanical Magazine*, t. 7294.

*A. cœruleum* (blue Leek; also known by the name of *A. azureum*).—This is a handsome, tall-growing plant, reaching a height of 2 feet to 3 feet, with globular heads of variable bright blue flowers in June. It is one of the species which frequently produces bulbils in the flower heads, by means of which it may be readily increased. Found in abundance on the salt plains of Siberia. Introduced in 1824.

*A. carinatum*.—The Mountain Garlick is a free growing perennial, quickly making itself at home in almost any position, seedlings coming up all around in profusion. It is from 1 foot to 2 feet high, with narrow, somewhat succulent leaves slightly keeled at the back, and loose umbels of flowers on long, spreading pedicels. The flowers are reddish brown in colour, with a darker keel on each segment. A native of Europe, and generally found in fields; it is also naturalised in parts of this country.

*A. caspium*.—This fine species is figured in the *Botanical Magazine*, t. 4598, where it states that it was found by Dr. Stocks in Scinde. Bulbs were sent to this country by him flowering in May, 1851. It is so unlike an Onion that it has been called an *Amaryllis* and *Crinum*, but possesses all the characters of *Allium*, with its unpleasant odour. The scape is said to vary from 2 feet to 10 feet high, with large lax umbels of green flowers tinged with purplish red. The filaments of the stamens are also a deep red. It is probably not in

cultivation. A native of the Caspian region' and growing in the deserts of Astrakhan.

*A. Cepa* (common Onion).—The origin of the garden Onion, this species has fistular rounded leaves and scapes up to 3 feet high, with globular heads of whitish flowers. A native of Persia.

W. IRVING.

(To be continued.)

## THE ROSE GARDEN.

### ROSE PLANTING IN MARCH.

At any other time than November the planting of Roses to some is little short of utter folly. I do not go so far as to recommend March as a more suitable time than November, for all authorities on Rose culture agree that there can be no better month wherein to plant; but I do believe that cold, heavy, badly-drained soils are not in a fit state to receive the plants before the spring unless the ground is well prepared beforehand by trenching or ridging. Rather than plant when the ground is wet and sticky, the plants would be better heeled in under some north wall or hedge until March, when wind and frost will have played their parts in sweetening and aerating the soil. Its condition should be somewhat similar to that which all good gardeners wish for when potting, namely, neither too dry nor too wet. If the land is unfit, wait for the first favourable opportunity in February or March. P.

### ROSE GRANDE DUCHESSÉ ANASTASIE.

THIS beautiful Tea Rose has been rather overlooked, as it can only be found in one or two English catalogues. I consider that it is a first-class Tea-scented variety, not large, perhaps, but of such an exquisite globular form that it is surprising to me exhibitors have allowed the Rose to pass almost into oblivion. The colour is midway between Maman Cochet and Corinna, and just the warm flush of rosy salmon with a suspicion of yellow so characteristic of the latter when seen at its best. Grande Duchesse Anastasie comes from a raiser, M. Nabonnand, who has given us many worthy sorts, and, like most of them, it is a splendid grower. P.

## CARNATIONS IN THE TOWN GARDEN.

(Continued from page 202.)

### MARGUERITE CARNATIONS.

No town garden should be without these, for they are essentially plants for the suburban plot. They will begin to flower in six months from sowing the seed, and surely that is a very short time to wait for such lovely flowers as are included in a good strain of Marguerite Carnations. Sow the seed in heat in February and March, pot on as they require it, and gradually harden so as to be able to place them out of doors in April or May; they will begin to flower about August. They may either be planted out in the border or kept throughout the summer in pots. I think the best flowers are obtained by the latter method, which, however, entails more trouble in watering, &c. If the plants are lifted from the garden borders and brought into a warm greenhouse they will continue to bloom until Christmas more or less, the degree of success depending in a large measure upon the weather and the attention they receive. Weekly applications of guano-water are a great help to their continued flowering. If seed is sown in the autumn the resulting plants will bloom the following spring; thus by sowing seed in spring for flowers in autumn, sowing seed in April or propagating by layers (border varieties) in July and

August for flowers the following summer, and by sowing seed in autumn for blooms the next spring, it is possible to have Carnations in bloom almost or quite all the year round.

Marguerite Carnations will yield a good supply of flowers most useful for cutting if the plants are looked after and encouraged to grow. Guano or Clay's Manure occasionally sprinkled on the soil is a great help to them, especially if growing in poor soil. It is necessary also to thin out a number of the buds in order to allow the remaining ones an opportunity of developing properly.

### TREE CARNATIONS.

These are easily grown, and are invaluable conservatory plants during the late autumn, winter and early spring, and even into summer. Cuttings take root quite easily at any time of the year if they are given the right treatment. For the purpose of the town garden it will probably be necessary to take them only once a year—about the end of January, so as to produce plants for flowering the following winter and spring. Those, however, who grow flowers of the Tree Carnation for market take cuttings at all times of the year, so that they may have plants always in bloom, and, in fact, they do so. The method of rooting Tree Carnation cuttings adopted by perhaps the largest market grower of these plants is as follows: A large piece of slate is placed over the hot-water pipes in a corner of a warm house, and a wooden frame about 10 inches deep was put over the slate. Some 6 inches or 8 inches of silver sand are then placed in the frame, which is covered with a glass light. The cuttings, made about 2 inches long and cut off below a joint, are then dibbled in the sand after a day or so has elapsed, so as to let the sand become warmed through. In two or three weeks the cuttings will have rooted, and may either be transferred to small pots or boxes. The former are preferable when the quantity of plants to be grown is limited, but when large numbers are cultivated it is more convenient to use boxes. When the rooted cuttings are potted off, still keep them in a warm house, and as the weather becomes warmer gradually harden them off until they can be removed with safety to a cold frame. They may remain there all the summer, or may be placed out of doors in a sheltered part of the garden. The final repotting should be into pots of 6 inches diameter. Take them into the greenhouse again in September and give them occasional waterings with manure water, and they will soon begin to show signs of flowering. When the plants are about 3 inches high and well rooted, the points of the shoots should be pinched out so as to give them a bushy habit of growth; one pinching or stopping is usually sufficient to ensure this. It is important to keep Tree Carnations free from insect pests or the leaves will be damaged and the plants will suffer. A selection for the town garden greenhouse would include Uriah Pike, dark crimson; William Robinson, scarlet; Primrose Day, yellow; Comus, white; Mlle. Terese Franco, pink, although there are many other good ones.

### CARNATIONS IN TUBS AND WINDOW BOXES.

If border space is limited Carnations may be successfully grown in tubs or boxes. Tubbs well filled with Carnations, however, form attractive objects in any garden, and are especially suited for arranging on the top of steps, on low walls, &c. In this way Carnations may be grown in a garden even where there are no borders. Tub gardening is a phase of horticulture that is yet but little practised, yet it has great possibilities and may be turned to good account by the town gardener as well as by those whose gardens are larger and more fortunately situated. If the culture is successful the plant will grow and flower so well that the tubs are almost hidden from view. Paraffin casks, cut in half, do admirably for growing the Carnations in, but if these are used some of the plants must be placed at the edge of the tub and inserted in the soil sideways, so that the growths and flowers will droop over the sides. Pinks may be used as an edging instead, and Carnations planted so as to fill the rest of the tub surface soil. The best results I have seen from this method of Carnation culture was

when the tubs were a good size, some 4 feet high, and with holes around the sides so that when planted and the plants fully grown the tubs were furnished all round. The plants are put in in March, and must be carefully planted, especially those in the holes around the side. Make them firm, and see that proper drainage is provided so as to allow of the exit of superfluous water. This may be secured by placing two or three drain pipes (on top of each other so as to form a channel) in the centre of the tub, and making holes in them here and there for the water to run through.

A deal of water will be necessary during the summer, for one tub will need a good many plants to furnish it well, and they must have a good supply of water, mixing guano with it when buds begin to show. It is not wise to keep the plants in the tubs for more than one season, for by the following year they would be untidy and the soil also would need reweaving. Do not stand the tubs or boxes upon the ground, but place two or three bricks underneath so as to raise them.

I often wonder why Carnations are not more generally grown in window boxes; they bloom a long time, and are delightful flowers to have in front of one's window. "In Switzerland," says Canon Ellacombe, "they are grown (especially the Crimson Clove) in the window boxes of the chalets, and are allowed to hang down, and so grown they are very beautiful."

Carnations do not mix very well, they always look best when alone rather than among other flowers, therefore I should suggest that one window box be filled with Carnations. Some may be supported by means of the green wires I have already mentioned, then the criticism of the writer already quoted that "a bed of Carnations shows almost as many sticks as flowers" will not apply; allow those planted near the edge of the box to droop naturally. If preferred the edging may be of Pinks.

The Carnation is one of the most beautiful of garden flowers. It seems to succeed everywhere, in the town garden and by the sea, where perhaps the finest results are gained. Without Carnations the English garden loses a great charm at all times, for in winter the silvery tufts are very beautiful. T. H. H.

## TREES AND SHRUBS.

### ILEX AQUIFOLIUM VAR. CAMELLIÆFOLIA.

WRITING in THE GARDEN of the 20th ult. about this Holly, Mr. Bean says: "The variety we grow at Kew under this name I regard as the finest of the green-leaved sorts. Of erect, pyramidal habit and quick growing, it has leaves 5 inches to 6 inches long, often entirely without spines, and rarely with more than three or four; they are usually less than half as wide as they are long, and of the deepest and most lustrous green. This variety is also known as *laurifolia longifolia*." The tree shown in the accompanying illustration is 20 feet high and 9 feet through at the base.

### SPIRÆA FILIPENDULA FLORE-PLENO

Born the foliage and the flower of this plant are so beautiful that one is surprised it is not more generally grown. Perhaps the reason is to be



ILEX CAMELLIÆFOLIA AT KEW.

found in the short duration of its blossom, especially if the weather is hot, as often happens at the season when it is in bloom, namely, in June. It is the double variety of the Dropwort of our English meadows, and a member of the order of the Rose, unlikely as it seems at a first glance. It grows about 1 foot high, and each flower-stalk bears a cluster, or what botanists call a panicle cyme, of small white to cream-coloured flowers, the buds of which are pink before they open. The foliage, with its multitude of small, finely-divided leaflets, is equal to most Ferns, and makes a very good edging to a border, as it keeps green most of the year. If used for this purpose it is well to keep the flower-buds picked off so as to get stronger foliage. Its fondness for lime is shown by the wild species from which it has been obtained being found on limestone or chalky pastures. Hence if the soil is poor in lime, as most old garden soils not actually overlying chalk or limestone usually are, some mortar-rubbish or lime should be added to the soil before planting. It prefers a shady position and a moist soil, the flowers lasting much longer under such conditions than in the full sunshine. If the soil in which it is planted has been deeply dug and manured it will make a good-sized clump in three to four years, and it is well then to take it up and divide it. This is best done in September or October, but may also be done well in damp weather in April, when, if a supply of plants is preferred to that season's blossom, it may be cut up into small pieces, and every piece possessing the smallest amount of root will grow and make a good flowering plant the following season. If the weather

should suddenly become hot and dry before the young plants are well rooted, they should be shaded by a flower-pot during the daytime. ALGER PETTS.

### ZENOBIA SPECIOSA.

Of the large class of hardy flowering shrubs, broadly known as *Andromeda*, and for the most part natives of North America, none are more beautiful than this plant and its near relative, *Z. pulverulenta*; and no flowering shrubs of modest growth are more desirable where garden ground or, still better, wild garden spaces present conditions favourable to their well-being. They thrive in moist, peaty earth, and accord most pleasantly with the wild Heaths, Whortleberry, and Mosses that in such soils form the natural undergrowth. The flower of *Zenobia speciosa* is a handsome spike, more fully set with the waxy white bells than perhaps any other of the *Andromedas*, and the individual bells are of more solid texture. This beautiful shrub is also known as *Andromeda cassinæfolia*, and is one of the most distinct and charming of the entire race. T.

## NOTABLE GARDENS.

### NOTES FROM SANDHURST LODGE.

THIS interesting garden repays a visit at any time of the year, and especially to those who have seen the change that has taken place in it during the past twenty years.

What was then rough waste land is now converted into a lovely part of the garden. Every portion is literally full of the best material—trees, shrubs, bulbs, and hardy plants of all kinds. Scarcely can a meritorious hardy plant be named that may not be found here, and the soil seems full of bulbs, &c. Since my last visit, four years ago, another interesting feature has been added, namely, flowering trees and shrubs grown in pots. With a few

highly-coloured *Prunus*, *Pyrus*, *Cherries*, &c., I observed some fine bushes of *Magnolias*, such as *M. conspicua*, *M. soulangeana*, and other good ones. These were full of buds, and promise to give abundance of bloom. The flowering shrubs and trees are all grown in pots, from 9 inches to 14 inches diameter, and vary from 3 feet to 6 feet in height. At the time of my visit they were plugged in the turf where they are to bloom. When the season has advanced they are removed, and their places filled with tender plants, also grown in pots, viz., *Fuchsias*, *Plumbagos*, *Solanum jasminoides*, and other things; 200 *Fuchsias* alone are used every year, and other things in proportion.

Among these are planted *Daffodils* of sorts, and it must be a lovely sight to see these and the shrubs in bloom at one time. Flowering plants are a great feature here: masses of *Rhododendrons*, *Azaleas*, and climbing *Roses* are almost everywhere. Even in a small garden of bush *Apple* trees there are *Daffodils*, &c., now springing up.

Border and rock plants are largely planted also. I was told that 6,000 plants of *Polyanthus* *Forde* *Abbey* strain are grown, and are used in groups on the grass. In borders and beds close under the windows *Pansies* are grown. In a swampy portion of the grounds I observed *Primula rosea* by the yard, and others of the *cashmiriana* type. These are close to the *Lily* ponds. The glass accommodation is taxed to the utmost to provide material for the open garden, conservatory, cutting, &c. Mr. Townsend showed me a large frame full of the best kinds of *Lobelia* of the *cardinalis* type all in pots; these are grown in the turf in a moist



place beside a brook. Although so much attention is given to the open garden, the glass department does not suffer neglect.

I never remember seeing a finer display of Cyclamen in a private garden. In the same house forced shrubs, bulbs, and Freesias made a grand display. Nothing could be finer than the flowering shrubs, chiefly grown in 9-inch to 12-inch pots.

In another house I saw a grand batch of *Primula obconica grandiflora* and the variety *rosea*. On the roof was *Hidalgoa Wereklei*, much resembling a single red *Dahlia*, with two varieties of climbing *Tropæolums*. The *Bermuda Oxalis* was charming, its bright yellow flowers and green foliage covering the pots. This is a plant that should be more grown for winter flowering. Large numbers of *Habrothamnus* of sorts are grown here for placing in the open, and had just been potted; these were from 3 feet to 5 feet high, and Mr. Townsend assured me they commenced to bloom as soon as growth began. *Viburnum macrocephalum* was blooming grandly in pots under glass. It is not hardy in the open except when against a wall. It is a most desirable plant, having large blooms of the purest white, and it is evergreen.

Fruit culture is not extensively practised under glass. In one house I saw evidence of what may be done in a limited space. At the back of a lean-to were standard Peach trees in pots. These had a good crop of fruits set. There were also upwards of two dozen pot Figs from 2 feet to 4 feet high, full of fruit about half developed. On the front stage Strawberries in pots were coming into bloom. Underneath the space was used by forcing

Asparagus in deep boxes, and there was a grand lot ready to cut.

I was impressed with the use of the flowering Currants, Broom, and other free-growing shrubs. These are placed in large groups among *Rhododendrons*, &c., and make a wonderful show when in bloom.

J. CROOK.

## WATER GARDENING.

### PLANTING WATER LILIES.

**N**O garden of any pretensions can be considered complete unless it contains a pond or stream or other facilities for carrying out some phase of water gardening. During the summer months perhaps no part of the garden is more appreciated than the corner where *Nymphæas* and other water-loving plants grow. Even the smallest pond is a delightful feature, and in hot weather is refreshing and restful as no other part of a garden can be. When its banks are covered with luxuriant plant growth, and Water Lilies spread themselves upon the surface, then it becomes full of interest as well. To those through whose garden runs a stream similar to that shown in the illustration, this will show more eloquently than words how greatly a few Water Lilies, judiciously planted, can add to its beauty. At

this time of year the water garden needs attention, and preparation must soon be made for planting. The best months for planting *Nymphæas* are April, May, and June, and even in July and August. They should first be planted in baskets previously filled with good loam, taking care to make them firm. Then lower the baskets into the water where the *Lilies* are to remain. The baskets will not decay for several years, and by that time the *Nymphæas* will be well established. Some of the stronger-growing sorts—the *Marliacea* hybrids, for instance—if not planted fairly deeply, say, 3 feet, will in a year or two push their leaves quite out of the water, making a massive clump, and thereby losing somewhat in beauty. *Nymphæas* will succeed even when planted 6 feet deep or more. Of course, with the less vigorous-growing ones shallow planting is quite satisfactory, for the long, slender petioles spread out and the leaves float gracefully.

Water Lilies may also be grown in tubs, so that they are not denied even to those with only quite a small garden. The best sort for this is *Nymphæa pygmæa Helvola*, which has a small yellow flower, and is very charming when in full bloom. When the smaller-growing hybrids and varieties are grown in a large lake or pond they should be planted near the edge, as then the flowers can be seen, and the plants kept free from stronger neighbours. H. T.



WATER LILIES IN A QUIET BACKWATER.

## THE FRUIT GARDEN.

### SPRING TREATMENT OF NEWLY-PLANTED FRUIT TREES.

WE do not expect fruit trees to bear the first season, and should not let them if they are inclined to do so, except to a small extent in the case of cordons. All or nearly all the buds burst out that would have done so if the trees had not been moved, assuming that they were cut back to some extent when planted; it is a very trying time for the tree when it has to meet this suddenly increased demand for moisture and nourishment before its roots get a proper hold of the soil. One way in which we can help the tree is by picking off the blossoms before they open, but our object must be to help the tree to get established quickly. The chief way in which we can help the tree is by increasing the soil warmth, as this helps the formation of new roots and the production of nitrates in the soil by nitrification. Plants can only absorb nitrogen in the form of nitrate, and the conversion of the organic matter in the soil first into ammonia and then into nitrate is practically suspended when the temperature of the soil is below 40°, but becomes active above this, the rate of production increasing rapidly as the temperature rises. Hence farmers find that the Corn turns yellow during a cold spell of weather in April or May through the partial suspension of the formation of the nitrates, of which the young plants are in need.

The problem is, then, to increase the warmth of the soil, and it is, fortunately, a simple one in practice. In the first place the mulching material that was put over the soil occupied by the roots at the time of planting should be removed as soon as the danger of severe weather is over—say, towards the end of March—thus letting the sun shine on the soil and warm it; but this is only the first step. The soil under the mulch will be very wet and close, and as fast as the moisture in the surface soil is evaporated more cold water comes up from below by capillary attraction, thus keeping the soil cold in two ways for it has been found that to evaporate 1 lb. of water at 62° Fabr. takes as much heat as to raise 1,000 lb. of water one degree. If it does not get this heat from the sun it gets it from the soil in which it is contained, thus lowering its temperature, and if it gets the heat from the sun entirely it is absorbing heat which would otherwise have been used in warming the soil. Now, if when we remove the mulch we lightly hoe the surface soil we check the rise of water from below, with the result, as everyone has observed, that the surface soil soon gets dry. If on a sunny day, even as early as the end of March, we put a hand on this dry surface it will be found that it is quite warm, while the damp ground is still cold. The result of this warming of the soil will be that the roots which are nearest the surface will be stimulated into activity, and these are just the roots which, with a view to the future fruitfulness of the tree, we want to encourage. The warmth of the soil, too, will induce nitrification, and hence, when the young trees begin to put forth leaves, there will be a supply of nitrate ready for the roots to feed upon, and the result will be seen in dark-coloured vigorous foliage.

It is not only the greater warmth of the soil which promotes the formation of nitrate, for the aeration of the soil induced by the working of the surface supplies the oxygen which is necessary for the bacteria to carry on their work. I had an instance of the converse of this some years ago. I had planted a row of cordon Pears in the autumn in the open on a cold soil, and had not only put over the soil the straw in which the trees were packed, but a coating of manure over the straw. This was left through the spring—a very cold one. The trees put out a few leaves, and then for two or three weeks almost stopped growth, the leaves becoming yellow, and in some cases rusty, while none of the blossom set. I did not know then that the trees were simply starving for want of

nitrate and air, besides being in such a cold wet medium that they could not make the growth necessary to keep pace with the demands of the leaves.

ALGER PETTS.

### POINTS ABOUT GRAFTING.

THOUGH young fruit trees are mostly raised nowadays by the quicker and generally favoured method of budding, grafting plays an important part in fruit culture as a means of changing the character of existing trees and placing new heads on old shoulders. Who was the originator of grafting is a moot question, but no modern generation of gardeners can claim the distinction, for Shakespeare describes the work as being "an art which doth mend Nature, change it rather, for the art itself is Nature." I think there can be little doubt that Nature was the teacher in the first instance, because examples of natural grafting are not uncommon. I know of one illustration in a cottage garden where two branches of separate Apple trees came into contact, and after rubbing and embracing each other for some time they united and formed a natural graft.

In orchards and fruit gardens there can be no two opinions about the usefulness of grafting as a means of increasing desirable varieties and changing useless trees into profitable specimens. We hear a good deal in these days about the inferior Apples produced in home orchards, but in many cases it is the varieties that are poor, and if the trees that bear the second-rate fruit were headed back and grafted with better sorts the general standard would be raised. In fruit-growing districts the work of renovating and changing by means of grafting goes on every year, and during April the work is performed by men who have become expert at it through long practice. Occasionally extremes are gone to, and I sometimes see old trees being grafted that are so time-worn that a more fitting place for them would be the timber stack. Yet the time when a tree is too far gone to be regrafted is a matter of opinion, and in the way of Apples there are some varieties that seem especially adapted for grafting on old stocks. A case in point is Bramley's Seedling. I have seen this variety grafted on to old stocks that seemed as if they were not worth the trouble, but it appeared as though the vigour of the variety was imparted to the stock, with the result that the trees were rejuvenated and crowned once more with young, vigorous heads.

In view of the fact that grafting itself is a simple operation, it is rather surprising that so many trees are allowed to go on year after year, till at last old age provides a reasonable excuse for letting them continue as they are. About the actual operation of fixing the scions on the stocks a few words may be said, and in this, as in other work, certain methods seem too common to certain localities. Really trees intended for grafting should be headed back some time beforehand, and then all the operator has to do when he has got his scions ready is to saw off another inch or two of the stumps of the branches to get fresh wood into which to insert the grafts. Likewise it is customary to take off scions some time before they are wanted and lay them in the ground so that the growth in the stock may be a little in advance of the graft when the latter is fixed. These rules, however, need not deter anyone from cutting back a tree now and grafting it straight away with reasonable hope of success.

The method known as whip or tongue grafting is good when thin shoots are being operated upon and stock and scion are about the same thickness, but for thick branches on established trees it is of course unsuitable. In some parts cleft grafting is a common mode of procedure, and is practicable only when the branches are not too thick to be split. The stump is split about 1 inch down and the cleft held open by means of a chisel inserted in it, while the scion, which is pared down to fit, is fixed at the outer edge on one or both sides, so that the inner layers of the barks of scion and stock are brought into contact with each other. Unions are readily obtained by means of cleft grafting, but there are disadvantages in the

splitting of the branch which is necessary, as the wood does not always unite again and canker is apt to set in. On the whole rind grafting is a much better method, and well adapted to thick limbs. After sawing the latter off level an incision is made through and down the bark about 2 inches long, and the bark is lifted by means of a piece of hard wood or bone, so as to make room for the graft, which is pared down and pushed into position. It is then tied firmly with matting and covered over with grafting wax to exclude the air. Several grafts may be inserted in this way on the end of a large limb, but if they all grow they should be thinned out sufficiently to avoid any congestion of shoots. There is no advantage in having long scions, and if these are furnished with two or three buds they are quite sufficient. How long time will elapse before a successfully grafted tree is in a state of bearing depends, of course, on the character of the variety, but if all the shoots breaking from the stock are promptly removed the vigour is thrown into the scions, and in a few years a new head is formed on the tree.

G. H. HOLLINGWORTH.

## THE KITCHEN GARDEN.

### THE CLUBBING OF BRASSICAS.

AS the time is now close at hand for the sowing of this important section of vegetables, a note on this subject may be of no little importance to readers who have experienced great trouble with clubbing and failed to eradicate it. The following remedy has never failed with me. When preparing the seed-bed work down to as fine a surface as possible, then draw the drills, and take one part of Veltha, mix with 100 parts of finely sifted soil, give the bed a good dusting all over, and then sow the seed. It is important to do this in the seed-bed. When planting out time arrives plant in the ordinary way, then give each plant a dusting round the surface, which will, of course, reach the roots either by rain or by watering. Treated in this way I have never experienced clubbing, and can recommend Veltha as an excellent stimulant to such plants; but it requires to be carefully applied. Veltha used as recommended is excellent for the cultivation of Tomatoes, either to prevent clubbing or as a stimulant.

J. S. HIGGINS.

*Rûg Gardens, Corwen, North Wales.*

### CAULIFLOWER EARLY DWARF ERFURT.

FOR a first crop in the open this Cauliflower is most reliable in every way. It often happens that the forced Cauliflowers do not last long, and there is a break between those raised in the autumn and given protection and those sown early in the year, either in frames, boxes, or on a warm border. For a quick-growing crop the true Early Dwarf Erfurt will be found most valuable. I wish to emphasise the word true, as I have seen very poor types sent out as the true Erfurt, and anything but dwarf. There is a large variety called the Mammoth Erfurt; this should not be grown for a first crop or spring sowing. The Early Dwarf, as its name implies, is of compact growth, and has pure white, small, closely-formed heads, which keep solid for a considerable time. The plant grows quickly if the seed can be given glass protection at the start. The Erfurt is equal to the varieties advised for forcing; unfortunately, it is not always sent out true. The true Erfurt is very distinct and dwarf indeed. Once grown, it is readily known from others, and its value is in its earliness, quick growth, and excellent flavour.

G. W.

### EARLY SPRING CABBAGE.

THE mild winter has been favourable for the first crop of Cabbages. In our own case not a single plant was lost, and this in so wet a season. Of course, this only applies to the southern part of the country and on a light soil, but the plants are

well exposed and on a sloping back. I do not think there is any gain in coddling; it is far better to secure a strong sturdy plant, as by so doing there are fewer losses. We sow even earlier than is advised for spring supplies, and plant out sooner.

I admit there are difficulties. In some seasons some of the plants bolt, but this greatly depends upon the variety, and I find Little Gem most reliable in this respect; but should a small percentage bolt, the remainder, coming in so early, are a distinct gain. As a market Cabbage Little Gem is useless; it is very dwarf and compact and even, and when full grown remains good a considerable time. This season we cut heads all through February, and, though earlier than usual, it is still good; the later plants will give a supply to the end of the month. By growing these small Cabbages there is no difficulty in having a supply all the year round.

G. WYTHES.

Syon Gardens, Brentford.

### IDENTICAL PEAS.

In these days of so many varieties of culinary Peas, and fresh additions every year, it is not surprising that many of the so-called distinct varieties in cultivation should resemble each other so much as to be practically identical. By way of illustration, I have a great fancy for that splendid first early Pea Early Giant, but I am continually being met with the assertion that it is identical with Gradus, another well-known Pea. I have grown both, and am of the opinion that, though they greatly resemble each other, Early Giant is the stronger, the more prolific, and consequently the better of the two.

General opinion, however, that the two are identical seems to contradict these views, and I think it would be interesting to Pea growers in general if Mr. Beckett or Mr. Wythes would give their views as to the distinctiveness or otherwise of these well-known varieties.

G. H. H.

### NOTES FROM THE MARKETS.

**R**OSSES are now coming in more plentifully, Liberty and General Jacqueminot being the best reds. Catherine Mermet is very fine, also Bridesmaid of the deeper shade. Caroline Testout is a lovely pink, and Niphotos are excellent. The Bride, with long stems and good foliage, sells well. Ma Capucine is small but bright in colour. Sunrise is also very pretty, Safrano is coming in from English growers now, and there are still some very good blooms of this from France. Perle des Jardins also comes over in large quantities, and there are some fairly good pink Roses cut with long stems; the way these come over would indicate that they grow most luxuriantly.

**Anemones.**—These are now very plentiful, and several distinct sorts are coming in. *A. stellata*, mostly scarlet, striped with white, is very pretty; *A. s. fulgens*, the bright scarlet, is very attractive; *A. coronaria* is in mixed colours, also in scarlet, bunched separately. This is particularly good; the purple is also seen in quantity, but does not sell so freely as the scarlet. The double pink from France is seen in large quantities. This is now a great favourite, but it does not look very attractive until it has been in water in a warm place for a little while. The St. Brigid varieties are also very good. All Anemone flowers should be kept dry, but the stems should be put into water as soon as they are received, and a little warm water will freshen them up quickly if they are withered.

**Ranunculus.**—Some very fine double varieties in separate colours, crimson, orange-yellow, rose-pink, and the curious crimson with green centre are to be seen. These are imported in large quantities. They do not seem to be so much favoured by English growers; probably they would not pay for marketing, but they should find a place in every garden.

**The Blue Cornflower** (*Centaurea Cyanus*) of a very deep shade of colour is now plentiful. The purple *Iris germanica* is already in market.

### PRUNING ROSES.

**A**S this is pruning time, the following notes by Mr. E. Mawley, secretary of the National Rose Society, in "Roses for English Gardens," will be helpful just now:

There are few things connected with Rose culture so little understood by amateurs and gardeners generally as pruning



A GARDEN ROSE BEFORE AND AFTER PRUNING.

Myosotis is plentiful. Violets continue to come from France. Some very fine English are also to be seen. Our attention was called to some very large blooms, deep in colour and very sweet; they were made up into bunches of six blooms in each, with leaves for button-holes, and the lowest price taken in market was 6s. per dozen bunches, or 1d. each for the blooms.

**Orchid bloom** is plentiful, particularly *Dendrobium*, *Celogynes*, and *Odontoglossums*, and there are some good *Cattleyas*, but these are not quite so plentiful.

**Eucharis** are again coming in plentifully. Lily of the Valley is not quite so abundant. Scarlet Geraniums are now plentiful, and there are a few pot plants coming in, but they are rather leggy. Callas, white Azaleas, Tulips, Hyacinths, and Lilliums continue plentiful. The supply of good Carnations continues to increase. No good yellows are yet to be seen, but all other shades are plentiful, and the prices are much lower.

**Euphorbia jacinthiflora** is very good. Cut Lilac of various sorts, including some of the best new double varieties, is to be seen. There is very little that is quite fresh in general pot trade. The Spiraeas are better now, and some very finely flowered plants of *Erica wilmoreana* are for sale. Cyclamens and Cinerarias are very good and plentiful, also Daffodils. Hardy roots for spring planting are coming in in large quantities. Quite a large trade in these will be done during the next few weeks unless we get frost sharp enough to stop them. Large supplies of

**Palms** are arriving, but trade is not yet very brisk, though there is a little improvement. Ferns sell better, and the supplies increase. *Adiantum cuneatum* is now plentiful, but the plants seen are all with new fronds, which are yet very tender. Aspleniums are very good, but for many Ferns it is just now rather a trying time, the old fronds being of rather a sombre hue, and the new ones not yet quite hard enough.

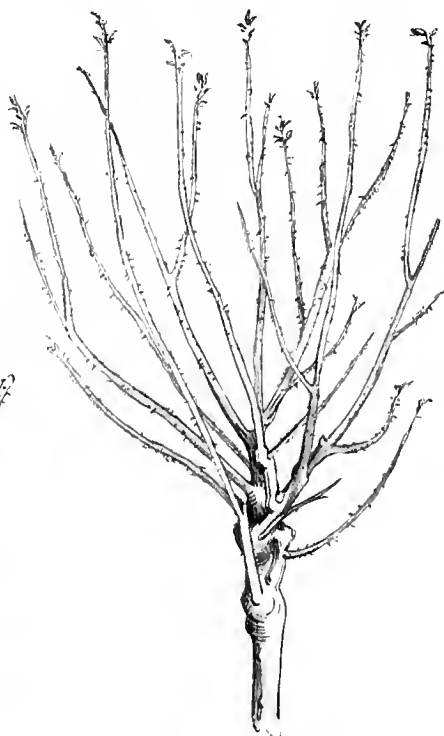
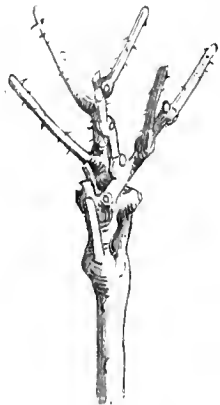
and it must be acknowledged that the number of different kinds of Roses, and the very different treatment many of them require at the hands of the pruner, cannot but make this operation seem at first sight a very puzzling one. The following simple directions will, however, serve to show that it is not nearly so complicated as it is generally thought to be.

Mr. W. F. Cooling, in an excellent paper read before the National Rose Society in 1898, very cleverly separates the numerous classes of Roses into two broad and distinct divisions. In the first of these divisions he places the Hybrid Perpetuals, Hybrid Teas, and Teas—all of which (the climbing varieties alone excepted) require more or less hard pruning; while in the second division we find the Hybrid Sweet-briers, the Austrian Briers, all the extra vigorous and climbing Roses and many garden or decorative Roses, which, although of comparatively dwarf habit, need little spring pruning, or none at all.

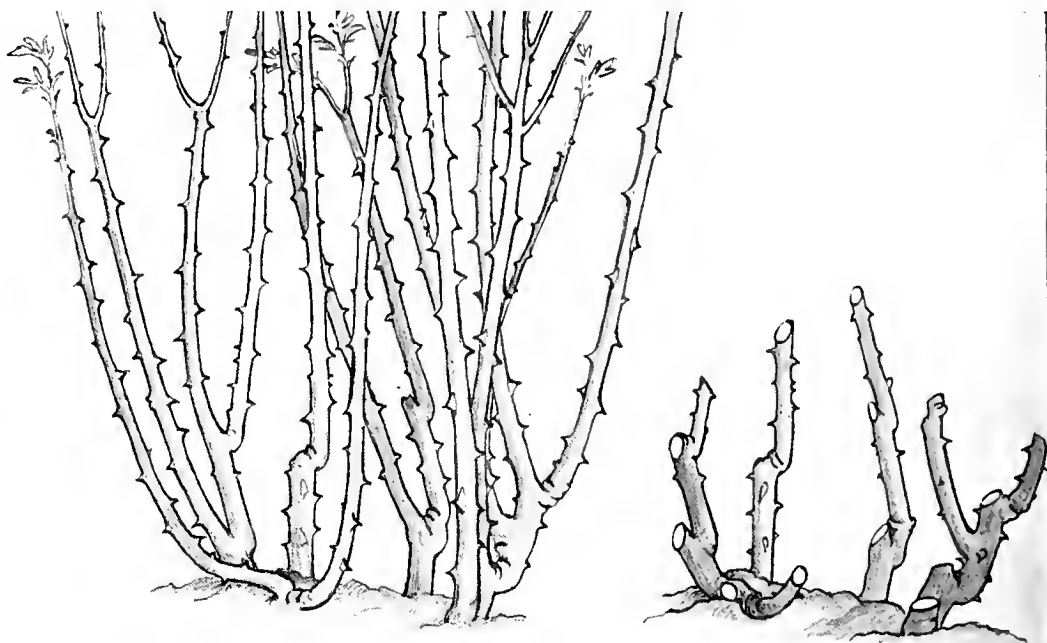
Before proceeding to treat of the various kinds of Roses more in detail it may be well to point out a few considerations which apply to the art of pruning generally. In the first place, the object of pruning is to add increased vigour to the plant, and at the same time to regulate its growth. It is difficult to understand at first, but nevertheless perfectly true, that the more severely a Rose plant is pruned the stronger will be the shoots which result from that apparently murderous treatment. There is also another general rule which naturally arises out of the foregoing, and that is the weaker the plant the more closely it should be cut back, and the more vigorous it is the longer should the shoots be left. As a matter of fact, pruning consists of two opera-

tions, which are altogether distinct. Firstly, thinning out all the decayed, crowded, and otherwise useless shoots; secondly, the pruning proper, that is to say, the shortening back of the shoots that remain after the thinning out process has been completed. There is no Rose that does not from time to time require some thinning out, but there are many which require very little, if any, shortening back. When removing the useless shoots they should be cut clean out, either down to the base of the plant or to the shoot from which they spring, as the case may be. Then, again, in the case of dwarf or bush Roses, the pruner has to decide whether he requires a small number of extra large flowers or a larger number of moderate-sized ones. If the former, both the thinning out and pruning must be severe, whereas in the other case rather more should be allowed to remain, and these may be left longer. After a very cold winter the pruner will find that, except in the case of quite hardy varieties, he has little choice in the matter of pruning, the keen knife of the frost having come before him and already pruned his Roses after its own ruthless fashion. In this case all the dead shoots should be cut away, and those that remain be afterwards examined. At first sight they may appear altogether uninjured, but on cutting them it will be seen that scarcely any sound wood is anywhere to be found. The best test of frost injuries is the colour of the pith. If this be white, cream-coloured, or even slightly stained, the wood may be regarded as sufficiently sound to cut back to, but if the pith be brown sounder wood must be sought for, even if this is only met with beneath the surface of the beds.

Armed with a pruning-knife, which should be of medium size and kept always with a keen edge, an easy pair of gardening gloves, a hone on which to sharpen the knife, and a kneeling pad, the pruner will require nothing more except a small saw, which will prove of great service in removing extra large shoots and



A STANDARD H. P. ROSE: THE SAME ROSE PRUNED AND UNPRUNED.



AN EXHIBITION ROSE BEFORE AND AFTER PRUNING.

dead stumps. A really good secateur may be used instead of a knife if preferred. In pruning, the cut should be always made almost immediately above a dormant bud pointing outwards. In all but an exhibitor's garden the best time to prune Roses is early in April.

1. ROSES WHICH REQUIRE TO BE MORE OR LESS CLOSELY PRUNED.—Under this heading is included at least three-fourths of the Roses most frequently grown in gardens at the present time as dwarf plants. All the weak and moderate-growing varieties must be pruned hard each year, and also all plants, with few exceptions, intended for the production of extra large flowers. But those Roses which have been planted for the decoration of the garden, or for the production of cut flowers, need not be so severely dealt with, while those planted as Rose bushes will require comparatively light pruning.

*Hybrid Perpetuals.*—The first year after planting all the dead, sappy, and weakly shoots should be cut clean out, and those remaining left from 3 inches to 6 inches in length, whatever the variety may be. This hard pruning is necessary the first spring, but in the following years it need not be so severe. The dead, sappy, weakly, and worn-out shoots should, as before, be cut clean out, also some of the older ones and any others where they are too crowded, more particularly those in the centre of the plant. The object kept in view should be an even distribution of the shoots allowed to remain over the entire plant, except in the centre, which should be kept fairly open to admit light and air. In pruning the shoots may

length, according to the condition of the wood, the strength of the plant, and the object for which the blooms are required. Provided that the frosts of the previous winter months will allow, that the plants are sufficiently strong, and that the shoots are not permitted to become in any way crowded, the upper shoots may be as much as 3 feet above the ground. In this way good-sized bushes may in a few years be obtained, which will form handsome objects in the garden and yield a large number of good flowers. By similar treatment the more vigorous varieties in this and other sections may be induced to become pillar Roses, or even to climb some distance up a wall. It is the want of hardiness in many of the Roses of the present day, that are usually grown as dwarf plants, which alone stands in the way of their suitability for the formation of handsome bushes or for their employment as climbers and pillar Roses.

*Hybrid Teas.*—The pruning of the Hybrid Teas should be carried out on similar lines to those recommended for the Hybrid Perpetuals, only it should be less severe. Indeed, in the case of varieties like *La France*, which are of sufficiently strong growth to allow of this being done, better results are obtained by moderate thinning out, and rather light pruning, as is recommended in the case of the Hybrid Perpetuals, where good-sized bushes are required.

*Teas and Noisettes.*—Owing to the tender character of their shoots, it is only after a mild winter that the pruner has much choice in the method of pruning. In any case, all the decayed, weak, and sappy shoots should be cut clean out, and where there are enough sound shoots left they should be shortened back one half their length.

*Bourbons.*—The Bourbons should be pruned in the same way as advised for the strong-growing varieties of the Hybrid Perpetuals and Hybrid Teas.

*Provence, Moss, and China.*—These hardy Roses should be well thinned out to prevent their growths becoming crowded, and the remaining shoots shortened one half their length.

2. ROSES WHICH REQUIRE VERY LITTLE PRUNING.—To whatever section a Rose may belong, if it be grown as a climber or as an arch or pillar, it will not do to cut it back hard, or it will bear but few if any flowers. But there are also certain other Roses which, although not of extra strong growth, will not flower satisfactorily if cut back at all severely. It is by cutting away the flowering wood of such kinds that the greatest mistakes in pruning usually occur.

*Climbing, Pillar, and other strong-growing Roses.*—In the spring these need very little attention beyond securing the best shoots in the positions they are required to occupy, and to shorten back or remove altogether any other shoots which may not be required at all. Within July, however, all these strong-growing Roses should be examined, and every year some of the shoots which have flowered be entirely removed, and the best of the strong young growths encouraged to take their place, cutting out altogether those not needed. The object of thinning out the shoots that have flowered, and tying or laying in the strong young shoots of the current year, is to enable the latter to make better growth, and by exposure to light and air to become ripened before the winter sets in.

*Austrian Briers.*—Beyond removing the dead, injured, and worn-out shoots, the Austrian Briers should not be touched at all with the knife.

*Scotch Briers.*—These require similar treatment to the Austrian Briers.

*Hybrid Sweet-briers.*—The Sweet-briers need no spring pruning at all; but in July, after flowering, it will be well to cut out some of the older shoots where crowded, in order to give the younger ones a chance of making better growth.

*Pompon.*—The free-flowering miniature Pompon Roses should have their shoots well thinned out, and those left shortened one half their length.

*Rugosa or Japanese Roses.*—This hardy section requires but little pruning. Some of the old and crowded shoots should be entirely removed, and the younger growths either tied in or moderately shortened.

*Banksia.*—The pruning of this particular class of Rose differs somewhat from that of nearly all the climbers in that they require but little thinning. After flowering, the strong shoots of the present year's growth not required to furnish the plant should be removed, and the rest of them tied in and slightly shortened. Care should be taken not to cut away the twiggy growths, as the flowers are borne on these laterals.

*Gallica or French Roses.*—Only the striped varieties in this class are now grown. They should be pruned in the same way as recommended for the Provence Roses.

*Single-flowered Roses.*—As these belong to so many different sections, it is impossible to give the exact treatment all of them require. Those of vigorous growth should be pruned as advised for other climbing and pillar Roses, while the bush and dwarf varieties should be only thinned out and the points of the remaining shoots removed. The few dwarf Hybrid Perpetuals bearing single flowers should, however, be rather severely pruned.

*Pegging down Roses.*—When suitable varieties are selected, this way of growing Roses in beds has much to commend itself; indeed, in no other way can such a number of blooms of the larger-flowered Roses like the Hybrid Perpetuals be obtained from the same number of plants. In the spring only a few of the longest and best shoots on each plant should be

retained. After cutting off just the ends of these long shoots they should be carefully bent and pegged down to within a few inches of the soil. In the following spring the shoots that have flowered should be cut away and the strong young growths pegged down in their place.

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

#### PINES.

FRUITS which have been swelling during the winter months will now be colouring. Early Queens, started as advised at the beginning of the year, will now be making rapid progress. Remove all small suckers which appear round the base of the fruit, and reduce the suckers to one or two of the strongest and best, according to requirements. Guano is one of the best artificial manures to use at this stage. Avoid getting too strong a heat in the pipes early in the day when there is promise of a bright day. During the month of April let the temperature be 75° on mild nights or 5° lower on very cold ones. Extra care is required during April in giving ventilation when the weather is so changeable. The fires should be started steadily early in the afternoon to assist the sun-heat and prevent the temperature of the house going down quickly. The bottom-heat must be kept steady at about 90°.

#### SUCCESSION PINES.

These will now be growing freely, and the house should be closed at 85°, well syringing the walls and damping the paths, slightly dewing the plants over on bright days only. A temperature of 65°, with free ventilation during the early part of the day, will suit these plants. Where the glass is inferior a very light shading will be necessary in the middle of the day. The plants require careful watering during April until well rooted. Continue to put in suckers as required, and pot on any plants that were left over into 7-inch or 8-inch pots, according to their size.

#### APRICOTS.

By the time these notes appear, if the present mild weather continues, these trees will be ready to burst into bloom. If the trees are protected by a coping board slight frosts will not affect them. Frigi Domo or netting is easily fixed should frosts occur. Whatever material is in use this should be removed or rolled up during the day, if possible, to allow full light to the blossoms.

#### PEACHES AND NECTARINES.

It will be necessary to cover these as soon as the flowers open when the nights are frosty. More harm than good is done by applying protection to these trees before there is any danger. If severe frosts occur the coverings should not be removed early; wait until a gradual thaw has taken place.

*Impney Gardens, Droitwich.*

F. JORDAN.

### FLOWER GARDEN.

#### TUB PLANTS.

SPECIMEN plants growing in tubs should now be thoroughly overhauled. After the necessary pruning is done cleaning should receive attention, and finally top-dress and retub. A short period in moderate heat will be found beneficial. The recent discussion dealt so fully with this delightful style of gardening that besides these remarks I will content myself with emphasising the necessity for good drainage.

#### BOG GARDEN.

On the whole it has been a comparatively mild winter, and the bog garden again claims attention. Here and there *Caltha palustris* gives welcome patches of colour. It is a great pity that the gorgeous Water Buttercup is a native, for if it were a rare exotic much more use would be made of it in our gardens. Although found growing in or on the banks of streams it will grow and

flower freely in a fairly shady border. Almost any soil suits it, but to see the Marsh Marigold at its best several large clumps should be planted on the margin of a stream in a natural deposit of soil and decayed leaves.

#### GUNNERAS.

These noble foliage plants are pushing up their leaves, and the winter covering should be removed. A light temporary covering, such as a bundle of Bracken, should be kept handy in case of a sudden frost. The spring frosts are a great drawback to the successful cultivation of Gunneras. It occasionally happens that an unexpected frost ruins the first leaves when their stalks are 3 feet or 4 feet high. Gunneras delight in a rich, moist soil. A liberal application of ammooia just as growth commences increases the size of the leaf to a surprising degree. *Gunnera manicata* is the most attractive species; it differs from *G. scabra* in having a larger and thinner leaf, with light green or nearly white ribs, whilst those of the latter are pinkish in colour. The inflorescence is cone-shaped, and here again that of *G. manicata* is nearly double the size of *G. scabra*.

#### HERBACEOUS PHLOXES.

In many gardens these handsome perennials require to be annually renewed to keep the collection in a state of good health. Some authorities attribute the decimating disease to which Phloxes are subject to overfeeding, but I am more inclined to believe that, in a light soil at any rate, root disturbance is frequently the cause of failure. Plants which were raised from cuttings last year and grown in nursery beds will now be fit for planting in their flowering quarters. Fresh cuttings should be inserted, and when rooted these should be grown in a similar manner for flowering next year. Pentstemons which were struck last autumn may, after being hardened off, also be planted in their permanent quarters. If preferred, seedling plants may be utilised. Seed sown at once and placed on a gentle hotbed will quickly germinate.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

### INDOOR GARDEN.

#### PLANTS AFTER FORCING.

It is no uncommon practice to cast aside directly they have finished flowering such plants as Lilac, *Dentzia*, *Syringa*, *Viburnum*, *Prunus triloba*, and others, and although these plants are hardy and will submit to what may be termed capital punishment, they, naturally with proper treatment after flowering, will respond more satisfactorily to future demands. Generally it is the eyes towards the apex of the shoots that start into growth with the opening flowers, while the lower or basal eyes remain dormant. It is to the latter that the shoots should be cut back, afterwards placing them in a temperature of 50° to 55°, syringing two or three times a day. An occasional watering with liquid manure will encourage them to make good growth, and which will eventually readily mature if they are given a well-exposed sunny position out of doors.

#### LILIIUM HARRISII AND LONGIFLORUM.

Those bulbs that were potted up early the previous autumn are rapidly coming into flower, and liquid manure applied to the roots will help the plants considerably. The growth from bulbs that were potted at the beginning of the year is making good progress, the healthy state of which will be maintained by a top-dressing of rough turfy loam and dried cow manure. They delight in having plenty of air, as well as being near the glass, and on no account attempt to force them into flower in a close, high temperature, or failure will result. Water carefully with soot water to impart a dark green colour to the foliage; abundance of water as growth advances will be required. The bulbs of *Lilium speciosum* *Melpomene* and *L. Kratzeri* should be potted up without delay, and their flowers for decorative work during September will be found very useful. A compost consisting of fibrous loam, peat, or good leaf-mould, dry cow manure, and a very little coarse sand will be found to be a very suitable compost. The

following Lilies for culture in pots are also recommended, viz., *Lilium Brownii*, *L. superbum*, *L. sulphureum*, *L. elegans*, *L. Batemanni*, *L. Krameri*, and *L. auratum rubro vittatum*.

#### PRIMULAS.

For decoration during the autumn and early spring months when well grown these are invaluable. A few well-grown examples occasionally are seen at the various exhibitions, but these in many instances are two year old plants, which reasonably goes to prove the advantage derived by sowing the seeds earlier than is the custom, and especially does this apply to the north, as then they would have a longer and better season in which to develop a good growth. An opportunity of growing a few large plants will be afforded by sowing a portion of the seeds at once, the remainder of which may be sown at intervals to suit convenience. The pots in which the seeds are to be sown must be well drained, and the compost should be of a light, sandy nature, and should not during the period of germination be allowed to approach the least degree of dryness. In a close, warm temperature of 60° to 65°, and shaded from the sunlight, the seeds will germinate satisfactorily; afterwards encourage the tender young seedlings to grow freely. *Primula stellata*, Sutton's Mont Blanc, The Duchess, Reading Blue, Crimson King, and Pearl are all varieties worthy of a trial.

J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

#### KITCHEN GARDEN.

##### PEAS.

ANOTHER sowing of these should be made, choosing the best of the second early varieties. If sown in the open quarter a line of Spinach may be sown between the rows, which should be from 4½ feet to 5½ feet apart. Where it is possible to sow Peas from 15 feet to 20 feet apart and to crop with Cabbages, Cauliflower, or Potatoes between the rows, much better crops of Peas may be had than from those grown close together. Peas ready for planting from boxes should be carefully hardened before planting out. Those growing and fruiting in pots require copious supplies of water now that the sunshine is increased. Keep as near to the light as possible, and continue giving liquid manure.

##### TURNSIPS.

Make a good sowing of Extra Early Milan on a south border. Sow thinly in shallow drills about 1 foot apart. Sowing should be made every three weeks. As the warm weather advances these become very stringy, and a change of variety is advised from June onward. Turnips in frames will now be thinned and growing freely. Give frequent light waterings overhead and air on all favourable occasions.

##### CARROTS.

Also make a sowing on an early border; Early French Horn is a good sort. Before sowing give the plot a dusting of wood ashes and soot. The main crop of Carrots will be in good time if sown towards the middle of next month. A large plot of

##### POTATOES

should now be got in, choosing early and second early varieties. Two feet between the rows will be ample for the Ashleaf kinds. A change of seed is advised if those about to be planted have been grown for several years. The land should be forked over and drills drawn about 5 inches deep. I consider it a mistake to grow a big collection of varieties. Choose a few that are suitable to the district, and only add such as are of proved merit. Earlier plantings that are coming through the ground should have the soil drawn over the tops as soon as they are visible. On a warm border put in

##### SOWINGS OF CAULIFLOWER,

Cabbage, Savoy, Sprouts, and nearly all the members of this family. Where birds are troublesome the seed should be rolled in red lead that has been slightly moistened, or the plot of ground closely netted. In this district chaffinches are the most troublesome, and it is most difficult to keep them out, even after the ground has been carefully netted.

THOMAS HAY.

*Hoptoun House Gardens, N. B.*

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### RISKS OF EARLY SEED SOWING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There are few seasons when some measure of disappointment does not await the vegetable grower when he has to make early sowings outside, but I think it will be found that the current spring will give more than its usual average of failures. There are two causes which are likely to bring these troubles, and some seedsmen enclose a warning note with the seed packages advising a freer hand in the sowings than usual. This implies immaturity of seed and a weaker germinating power. Thus one cause of probable failure from early outdoor sowing is made clear. Another is derived from the now familiar cry of rain-soddened land and its consequent coldness. Only for two days this year has there been any weather to make a dry surface and give one an opportunity to sow a few seeds. This was towards the end of February, and even then it was necessary to use boards in order that the surface should not be unduly trodden. The cold weather that has followed—rain, snow, and frost—almost intermittently, or at least up to the time of writing, will have a bad influence, and the fear is that with the lower germinating power of seeds the chances are very much against a successful issue.

Peas sown in pots and placed in a cold house—and this course is often advised in that a more hardy growth results than is the case with Peas produced in heat and afterwards hardened off—have recently shown in a marked degree the low germinating standard of the seeds, for instead of a spontaneous and sturdy growth they are slow, irregular, and weakly. One grows accustomed to ungenial March, but when the ground has been previously warmed and dried by the action of sunshine and wind some help and encouragement is afforded. The month of March, usually such an active one in the garden, is advancing, yet is bringing with it no opportunities. Seldom has so much effort been rendered necessary to forward seeds in pots and boxes under glass for future planting as this year, and the further thought of slug troubles makes even this phase of garden work doubtful. Truly the year is beset with trouble for the gardener.

W. S.

### SINGLE AND DOUBLE VIOLETS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It does not seem long since the variety California, the pioneer of the giant Violet of to-day, made its appearance. Comparing it with the old favourite, Czar, which had done duty for such a long time, one was lost in admiration at the size of flower and unusually long stalk. Since that time others, notably Princess of Wales and La France, have made their appearance, and judging from present demands they are destined to remain in favour. While to so many Violet lovers this craze for mere size satisfies for the time, others disparage the merits of these giant forms. Fashion is fickle, though in the case of sweetly scented flowers like Violets it may not be so fleeting. Quite recently, in the course of conversation with a local florist, the fact was related to me that there were practically no enquiries for double Violets, the rage being all for the large singles. No doubt for personal adornment the long-stemmed singles are more attractive. As a man's coat flower, however, commend me to the double Violet. The rosy-hued Mrs. J. J. Astor (blue), Marie Louise, and White Comte Brazza are charming doubles. Both Princess of Wales and La France are well adapted for culture in the light market growers' structures, with or without the use of fire-heat, and give flowers over a long period. In a house furnished with hot-water pipes frost cannot arrest their succession, as with frame-grown plants, which must be covered and

for the time kept in perfect darkness. Arranged in vases the large singles are certainly most decorative.

W. STRUGNELL.

### CARNATION SOUVENIR DE LA MAISON OUT OF DOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is gratifying to me to find that my description of the outdoor treatment of some plants of the above Carnation interested Mr. Higgins, and it is also satisfactory to hear that it surprised him, for the fact of the treatment being distinctly different from that usually followed was the reason for my notes being written. Your correspondent intimates that he would like to know which variety was referred to, and alluded to the fact of the old blush and pink sorts being more difficult to manage than the majority of others; but notwithstanding this the variety in question is the old blush, and the following further particulars respecting the plants may not be without interest. Owing to its being the beginning of September when the plants were observed they were not layered at the usual time, and were not ready for lifting until the middle of October, when they were potted into 3-inch pots. They were shifted into 5-inch pots at the end of January, at which time we exchanged several dozen of them for some choice tree varieties, and were complimented upon the splendid state in which they were received. We have at the present time upwards of 250 of these plants in perfect health, with strong clean foliage and robust stems, furnished at their base with healthy young growths. Our ordinary stock of young plants of such varieties as Lord Welby, Lord Rosebery, Nell Gwynne, Margot, Calypso, Princess of Wales, &c., were layered beneath glass protection early in August, and were subsequently treated in the ordinary way, but they are (except in some instances a little larger) in no better condition than are those of the old blush. When the plants were lifted in October the border in which the old plants had been grown for two years was replanted with a portion of the best rooted of the young ones. They are at the present time in excellent health, and appear likely to succeed as well in every way as their parents.

T. COOMBER.

### FRUIT-TREE PRUNING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—While not in accord with Mr. Tallack on the extension system he advocates, I am convinced that there is far too much cutting done with the knife among young fruit trees, with the idea that such hard pruning promotes fruit buds, when, in the majority of instances, it does quite the reverse. With young trees, either Apple, Pear, Plum, or Cherry, that are making extra strong growth, much may be done by root pruning, or, in the worst cases, complete transplanting is the best remedy; but even then it is unwise to leave intact shoots that may have grown from 2 feet to 3 feet in length during the season, as fruit buds would only form near the extremity of the branch, while a distance of 18 inches to 2½ feet at their base would be bare. I consider all leading branches should be cut back to within 9 inches to 15 inches from their starting point, according to their strength, at the winter pruning, until the bush or pyramid tree has filled its allotted space. A great mistake is often made in leaving too many main branches to form a tree, with the result that overcrowding favours ill-ripened wood with little or no fruit, and I have observed in many amateurs' gardens where trees have been neglected spurless shoots quite 2 feet in length, while in others the leading or main branches are cut back to within 4 inches of their base, which, in the latter case, only means extra strong growth year after year and fruit few and far between. I am a great advocate for the summer pruning of fruit trees, and begin earlier than most cultivators, as well as stopping at a greater length from the shoot's origin, namely, 4 inches to 5 inches; this prevents sublaterals emanating from near the base,

but tends to form fruit buds there by the extra light and air admitted. This is done from the middle of June onwards, tackling the wall trees first. Many bush and pyramid Apple trees make but 6 inches or so of growth during the season. If it is desired to extend the tree's dimensions the points must be removed where a fruit bud has formed, and many varieties do this. If not denuded of this bud a season's growth is lost.  
c. *Bicton.* JAMES MAYNE.

## ORCHIDS.

### DENDROBIUM THYRSIFLORUM.

**A**MONG recent importations of this species a great deal of variation exists in the flowers both in shape and colour. The typical form has the sepals and petals clouded white, the lip yellow of varying tints. From a small consignment of this Orchid received two years ago there are several varie-

complete in August, and a month in the open air is of the greatest benefit to them, the slight check serving to make them flower more freely. During winter the temperature may be kept at from 45° to 50°, allowing just sufficient water to keep the pseudo-bulbs plump. The best season for repotting is directly the flowers are past, watering carefully until new roots are being emitted. The pots used should be large enough to accommodate the plants for three or four years, as they dislike frequent disturbance. A. P. H.

### ORCHIDS AT KEW.

THE warm Orchid house in the Royal Gardens, Kew, is now bright with a display of flower, largely contributed by Dendrobiums. Few Orchids give such a harvest of flower as the Dendrobiums, and most of them are of comparatively easy culture. If a plant is worth growing at all it is worth growing well, and this is very true of Dendrobiums, which are a delight when strong pseudo-bulbs are produced, which bear flowers nearly their whole

length. They are blooming well at Kew this year, and among those best now flowering are *D. crassinode*, *D. wardianum*, *D. splendidissimum*, *D. nobile* vars., *D. lituiflorum*, native of Burmah, a striking flower, with deep purple sepals and petals, cream-coloured lip, and dark velvety throat; *D. Ainsworthii*, *D. wardianojaponicum*, a dainty white flower, with a green blotch at the base of the lip, and a crimson band just below; *D. Curtisii*, *D. luteolum*, from Burmah, a pretty, fragrant, cream or palest primrose-coloured flower, the throat faintly streaked with purple, and having a ridge of yellow hairs down the centre of the lip. Other Orchids in bloom that are worthy of note are *Lælia harpophylla*, a favourite and valuable species from Brazil; its warm bright colouring, distinguished at once, may be described as apricot, with a suffusion of scarlet. The flowers are borne from the ends of the slender pseudo-bulbs in a raceme of about five. *Cælogyne humilis*, from Northern India, flowers from leafless bulbs. The flower-stalks are only about 1½ inches long, the sepals and petals of the slightly drooping flowers are bluish or palest lilac, around the fringed lip runs a band of purple, while the throat is lined with a darker shade of the same colour upon a white ground. *Phaius Blumei*, *P. Cooksoni* var., *P. Marthæ*, *P. tuberosus*, and *P. Assamicus* × *Marthæ* were also in flower. A. P. H.



DENDROBIUM THYRSIFLORUM.

ties in flower; one has very loose racemes, the blossoms being individually very large, the sepals and petals suffused with rose, the lip bright orange. Another pretty variety has the petals distinctly crimped on the edges, the colour being of the purest snow-white, and there are one or two others more or less distinct from the type. There are few more useful Orchids than Dendrobiums, and none more ornamental than *D. thyrseiflorum* and the closely-related *D. densiflorum*. Their culture is of the simplest description, and they thrive in an ordinary plant stove if care is taken to give them the proper resting and growing seasons. If there is not proper convenience for ripening the pseudo-bulbs, the plants may be taken out of doors when the growth is

### MASDEVALLIAS IN SCOTLAND.

THE successful culture of Masdevallias does not appear to be so general as was the case years ago; in fact, they are not even grown in many gardens now, and principally only in those where Orchids, and particularly the less showy ones, are thought highly of. Yet there are many beautiful flowers among the Masdevallias, as well as some interesting and curious ones. It was a great pleasure, in that it is a comparatively rare one, to find, when

recently visiting the garden of Dr. Tait, Broomend, Inverurie, that among the collection of Orchids there Masdevallias are given a prominent place, and are also very skilfully and successfully cultivated. Mr. W. J. Hutchinson, the gardener, takes an especial pride in Masdevallias, and even in mid-February had such specimens to show as are rarely seen. The collection of Orchids here is only of moderate size, but Mr. Hutchinson devotes a good deal of time to them, and with the best results. Even those Masdevallias not then in flower were remarkable for their clean and healthy growths. The specimens in bloom were *Masdevallia ignea*, in a 5-inch pot, bearing fourteen flowers, and *M. harryana*, in a pot of similar size, with seventeen flowers. These are two of the brightest and cheeriest of the winter-blooming Masdevallias, and are highly thought of at Broomend. Another Orchid in flower that I remarked is *Brassavola cucullata* (cuspidata), with a broad hooded lip, shaded with green. A. P. H.

### WORK FOR THE WEEK.

#### DENDROBIUM CULTURE.

DENDROBIUMS should have a very open compost to encourage the roots to keep inside the receptacle in which they are grown. I feel sure that one root inside is worth several of those outside. A very good mixture is made up of two-thirds good clean sphagnum, chopped up a little, and one-third good fibrous peat that has had the fine particles taken from it, well mixed together, with a liberal sprinkling of small crocks and coarse sand. We are finding pots without any side holes far better for their culture than Orchid pans or baskets. Grown in pots the roots keep more inside, and they require far less water either during the growing season or when they are at rest; and another great advantage is that when the time comes that they require repotting again, it can be done without causing any injury to the roots. A few crocks should be placed over the base of the pot, over which should be added some chopped rhizomes to complete the drainage, filling the pot to the depth of one-third. Potting should be done rather firmly, but by no means hard, keeping the base of the new growth and the surface of the compost rather below the rim of the pot, deferring the surfacing of Dendrobiums till the new roots are further advanced. I advise placing the

#### NEWLY-POTTED PLANTS

apart from those that have only been resurfaced or so far not touched, for after potting great discretion must be exercised in watering, at least till the roots have taken a good hold of the compost, otherwise the new roots will damp off, and possibly the young growth. Water should only be afforded when the pseudo-bulbs are showing signs of shrivelling, and then only in sufficient quantities just to damp the compost through, so that the plant can again soon become dry. Newly potted plants should be kept fairly well shaded; the early morning and late afternoon sun is beneficial. Although Dendrobiums have lost with some the popularity they once enjoyed, we have very few Orchids that give better returns for the energy expended on them, providing they are well cultivated; and now that growers are introducing pots instead of shallow pans, and rhizomes in the place of crocks which used to fill half of the pan or basket, and a mixture in place of lumps of peat and sphagnum, I consider the greatest difficulty is removed. I do not think there are many who gave up Dendrobium culture because they did not like them, but rather for the reason that they did not grow satisfactorily.

#### TRICHOSMA SUAVIS.

This fragrant and pleasing winter-flowering species should now be potted, if necessary, in a compost of fibrous peat two parts and one part sphagnum, mixed together with some coarse sand. Fill the pot to the depth of one-half with rhizomes to allow of copious supplies of water being given when the new roots have taken a good hold of the compost. It thrives in the intermediate house temperature, and, although seldom seen, it amply repays the room afforded it.

## THUNIAS.

These are now starting into growth, and should be repotted in a compost of fibrous loam one-half, and one-quarter each of peat and leaf-soil, well mixed together with a liberal sprinkling of small crocks and coarse sand. Pots should be used, filling them nearly one-third with crocks. All the old compost should be shaken away, and only retain enough old roots to hold the plant in position when potted. They may be either potted singly or otherwise, and each growth should be secured to a neat stake. A position close to the glass in a hot, sunny house should be afforded until flowering time, then they may have with advantage a slight shade during the brightest part of the day. Very little water will suffice, but as the pots get filled with roots and growth advances the supply must be increased.

W. P. BOUND.

Gatton Park Gardens, Reigate.

## THE PHALÆNOPSIS.

THESE are amongst the most difficult Orchids we have to cultivate, but to give a reason for this is a problem not easily answered. I have seen them successfully grown in one house, and when moved to another apparently the same and treated similarly they have soon showed signs of deterioration. The house in which they seem most at home is one in which the atmosphere can be easily kept in a hot, humid state, such as a well-made propagating house. So long as the weather continues sunless and cold the plants should have little water. It often happens that they will produce spikes when in a very weak state, but to let such plants flower would be fatal. The spikes on the strong plants should be tied down so that they do not come in close contact with the glass. It is essential that the moss should not be allowed to overgrow the centre of the plant.

Those plants that are not being allowed to flower this season may have the necessary resurfacing or potting as the case demands. We have always grown Phalænopsis in Teak baskets, and plants well established in them are difficult to remove, but weakly ones with few roots should be placed in pans, in a compost of equal parts of good fibrous peat and sphagnum well mixed together, with small crocks and some coarse sand. A few crocks may be placed over the bottom of the pan and fill the pan to the depth of one-half with rhizomes. Pot very lightly indeed, keeping the compost well below the rim, and surface with good living chopped sphagnum. After potting they should be suspended in a well shaded house. They will require very little direct watering at any season; if the condition of the house is humid, as it should be, slight dampings of the surface moss will suffice. When future repotting is required the pan may be smashed and the plant potted on intact; whereas, when baskets are used and the plants have made many roots, the only thing that the grower can do is to place the basket inside a much larger one than the plant requires for its well-being.

W. P. BOUND.

## HARDY FRUITS IN SEASON.

## APPLE LORD BURGHLEY.

THIS is an Apple of comparatively recent introduction, originating some time in the sixties, and it has not been bloomed nearly so much as some Apples inferior to it in quality, though it has received the certificate of the Royal Horticultural Society. I have not seen it grown as a standard, and it is said by some to be an insufficiently strong grower for that form, but it makes excellent pyramids and bushes, with its strong, upright shoots. It is very prolific, but often has a habit of continuing growth till very late in the season, and when this is the case the unripened portions of the shoots should be removed at the autumn pruning. In appearance this Apple is not very unlike Ribston Pippin (though this latter varies tremendously in different localities), but is rather more angular, and less in diameter from top

to base. When in season it is bright scarlet on the side which faced the sun, the remainder being yellow. It is a remarkably solid Apple, specimens no bigger than a good-sized Cox's Orange Pippin or King of the Pippins weighing a good quarter of a pound. Hence its excellent keeping properties, being very firm as late as April if well matured and afterwards carefully stored. For its proper maturation it should be allowed to hang on the tree till November, unless a very hot season ripens it before. Its flavour is sometimes spoken of as resembling a Pine, and perhaps this is the most suitable comparison that can be made. The Apple that comes nearest to it in flavour, as far as my experience goes, is the D'Arcy Spice, or Baddow Pippin, a great favourite in Essex, where it was originally raised. Someone recently writing to one of the gardening papers spoke of it as a poor grower, shy bearer, and especially subject to canker. Therefore it would be advisable to plant it on a rich and well-drained soil to avoid the manifestation of these defects, though I have not seen them myself.

ALGER PETTS.

## TREE CARNATIONS.

THE present popularity of the Tree Carnation is undoubtedly due to the great strides made



NEW PATENT WIRE PLANT SUPPORT.

by the hybridiser. He conceived the idea of what was wanted, namely, length and erectness of stem, colour, fragrance, freeness, and perpetual bloom, and lastly, but not least important, a flower of good keeping quality with a perfect calyx. In Mrs. Thomas W. Lawson, the beautiful rich pink bloom that is now so popular and familiar to all amateurs and gardeners, he may fairly be said to have reached this ideal. The Tree Carnations of this type can be flowered in both winter and summer by the amateur in his small conservatory, or the gardener with his hundred is able to furnish the house with a constant supply throughout the year.

Many people, if they only knew how simple is the treatment of the Tree Carnation, would find them a home in the greenhouse to brighten the dull winter months. The plants are easily increased from cuttings struck in heat from January to March, gradually hardening them

off after rooting. As soon as the plants are established a cold house with side and top ventilation is all they require. The plants should be stopped once, from two weeks to a month after they are rooted, and should be repotted into 6-inch pots as soon as the plants have started, never letting them become pot-bound. If the plants are placed outside, or, better still, in a cold frame from May till the end of August, they may be then taken to their flowering quarters—a house in which a night temperature of 45° to 55° can be maintained through the winter months—always bearing in mind that a little heat and good ventilation are the main factors. The plants should never be watered unless the soil is on the dry side. Disbudding should be carefully attended to to secure stems 2 feet to 3 feet in length. It is not extravagant to disbud. An experienced grower myself, I have proved that it is the flower and not the stem that takes the greatest vitality from the plant. Every grower of the beautiful Tree Carnation is undoubtedly increasing its popularity.

A. F. D.

THE illustration shows a good new patent wire plant support, which is particularly suitable for Tree Carnations. The photograph shows the plants in September throwing up their winter crop of bloom. Its advantages are: Comparatively no shade, compared with the old method of tying to canes; it allows the plant to grow quite naturally, and yet gives sufficient support to carry the stem and bloom erect without any tying being necessary; it is a great saving in labour, the plants always look neat and tidy, and the bloom is gathered with great ease, as no ties have to be cut. The patent support consists of two or three wire rings on three legs, which are inserted in the pot about 3 inches. When not in use they are collapsible, and can be stored away in a very small space.

## OBITUARY.

## MR. SAMUEL AINSWORTH.

MR. AINSWORTH, who died on the 12th inst. at the age of seventy years, was long associated with the seed firm of Messrs. James Carter and Co., High Holborn. He joined the house in 1850, and on the death of James Carter, Mr. Ainsworth, in conjunction with Mr. E. J. Beale and Mr. J. H. White, took over the business and assumed the title of James Carter and Co. There are perhaps some living who retain a knowledge of the old seed shop in High Holborn, which was in remarkable contrast to the imposing premises now occupied by the firm. The energy shown by Mr. Ainsworth and his business capacity contributed materially to the rapid development of this enterprising firm. In order to extend the connexion he visited the then little-known seed-growing districts of France and Germany, by so doing contributing greatly to the growth of the international trade relations which are now so firmly established with most of the London seed houses. Mr. Ainsworth took a great interest in the new annuals introduced from California and elsewhere; he had to do with the many new selections made by the firm time after time, and his exertions did much to popularise the new introductions. It was he who gave the name of Tom Thumb to the dwarf forms of *Tropaeolum majus*, now so much grown in gardens.

Towards the end of the sixties Mr. Ainsworth severed his connection with the firm of Carter and Co. and went to Australia, intending to embark in the grape-growing industry, but, having to face a year of heavy floods, he abandoned the enterprise, and, returning to England, he rejoined the Holborn house, and undertook the management of Messrs. Carter and Co.'s flower seed department. In this position he remained until 1903, when increasing



ill-health necessitated his retirement from active participation in the business.

Mr. Ainsworth's knowledge of popular annuals, &c., and their seeds was large; his practical acquaintance with them surpassed that of many of his contemporaries in the seed trade; and he was a recognised authority on the origin and development of many of them. This knowledge he brought to bear in the discharge of his duties as a member of the floral committee of the Royal Horticultural Society for several years. His geniality and amiability of disposition were two of his chief characteristics. He leaves a widow, two daughters, and a son. The latter, who gained his knowledge in the London seed houses, is now a member of the staff of Mr. Ernest Benary, Erfurt, Germany.

MR. HERBST.

It is with extreme regret that we hear of the death of Hermann Carl Gottlieb Herbst, V.M.H., at his residence at Stanmore, Richmond, on Friday, the 18th inst., at the age of seventy-four, after a brief attack of pneumonia supervening upon influenza. Although for a number of years Mr. Herbst had been debarred from attending the meetings of the Royal Horticultural Society owing to two paralytic strokes, the last of which entirely disabled him, his memory will be long cherished by all who knew him personally, both on account of his amiable, cultured, kindly and hospitable disposition, and of the recollection that in some of the chief developments of market horticulture he was the absolute pioneer, especially in the direction of forced Lily of the Valley culture and the introduction of Palms, Adiantums, and similar exotics on a wide commercial scale. *Cocos weddelliana*, *Iresine Herbstii*, *Dipterocanthus Herbstii*, and many other high class plants were introduced by him, either to this country or to the public, and the popularity of *Epiphyllum truncatum* was first induced by his recognition of its peculiar decorative value. During

of the plants themselves, but of their adaptability to the public taste, characterised it throughout, conjoined with a keen business instinct which one fact alone brings to light most prominently. On reaching England from Brazil, he looked about for an eligible nursery site, and, having fixed upon the selected one at Richmond, he visited Covent Garden to see, not what was already in vogue, but what they had not got, and as a result commenced to remedy the shortcomings noted by the cultivation on a large scale of the several classes of plants above cited, which, well grown and well exhibited, at once created a demand which, to judge by a marked catalogue of an auction sale by Messrs. Protheroe and Morris in 1877 of some 25,000 rare and new Palms, &c., must have well repaid him for his acumen and outlay. It was in recognition of these tangible public services and the high horticultural genius which underlay them that the Royal Horticultural Society selected Mr. Herbst as one of the first recipients of their Victoria Medal of Honour, and he was undoubtedly one of the most worthy of that distinction. Prior to his disablement by paralysis he constantly attended the floral committee, where, on account of his long and extensive knowledge, he was recognised as one of the highest authorities in his particular line. His death will be mourned by a large circle of appreciative friends. By his own desire his body was cremated at Woking Cemetery, where, on Tuesday, the 22nd inst., this function was well attended by many of those who knew him.

C. T. D.

AN HOUR WITH THE HOLLYHOCK.

(Continued from page 200.)

LET us now consider what is the best description of box for conveying the flowers in. As it will not be required to show them in, but merely to protect them during transition, the more economically this can be contrived the better. It may be made of three-quarter inch deal, the boards closely fitted to exclude dust, rain, &c. The length should not be less than 4 feet, and a box to hold seven spikes should be 3 feet wide and 14 inches deep; a common lid, with shifting hinges, lock in front, and handles at ends complete the shell. The interior fittings are trifling. About 3 inches from one end a second end must be made with holes bored thus

\* \* \* \* \*

large enough to receive the lower end of the spike, which, when placed there, must be tightly wedged, filling the space between the two ends with wet moss. Now, at the other end of the box, a false end is necessary, formed of three pieces, the lowermost fixed, the others movable at will, and made to slide up and down in a groove, with holes corresponding to those in the opposite direction. These holes should be bored on the exact line where two pieces meet, so that when the centre piece is removed the half of each hole is withdrawn with it. In these holes drop the small end of the spikes, surrounding the part in contact with the wood with wadding before sliding down the corresponding piece. Flowers thus packed have travelled from London to Edinburgh without receiving the slightest injury.

The best contrivance for showing the spikes is perhaps in large pots filled with wet sand and nicely covered with green moss. When single flowers are shown, a common box, such as is used for Dahlias, Roses, and the like, is all that is required.

Can we dispense with the Hollyhock? The Rose is a more general favourite, and in its various states of standard, climber, and bush,

is more available; the *Uahlia* is still the "Queen of Autumn," but for the odd nooks and corners in small gardens, and for planting in masses for distant effect in large gardens, there is no flower so suitable as the Hollyhock. As to the height to which it grows, this cannot be fairly urged to its disadvantage; there are positions in almost every garden for which this feature renders it peculiarly adaptable. The best of our "bedding plants" are of lowly growth; we must look down upon them to appreciate their beauty. But we cannot always be looking down be the prospect ever so charming. And there is a new feature of beauty in that garden, where on raising the bent head and downcast eye we meet with spikes of Hollyhocks breaking the flatness of the general surface by streaks or lines of rich and varied colours rising high among the leafy trees. In many beautiful gardens that we have visited we have been more than disconcerted by the abrupt transition from "bedding plants" to trees, moderated as this has sometimes been by raised baskets and pillars of summer climbers. Beautiful as are these latter they are not sufficiently massive. The Hollyhock, and, as far as we know, the Hollyhock alone, effectively fills the vacancy. We know that it has been the fashion with some to decry this plant, calling it coarse, formal, and weedy. Admitting that there is some truth in this, may we be permitted to ask, is it not also bold, striking, and effective, and are not these elements worth combining, at some sacrifice, with the rich, the bright, the beautiful?

Thus far of its value in garden scenery. But it has lately come to be considered as a florist's flower. The busy brain and hand of the cultivator have been engaged in its improvement, and those who remember the Hollyhock of twenty years ago cannot fail to remark how complete has been the success. Not only has it become even more useful and effective for garden decoration, but it has received a degree of elegance and symmetry from the hands of the cultivator that has fitted it to take a position in company with the most distinguished of Flora's subjects.

W. PAUL, F.L.S.

(To be continued.)

USES OF BRITISH PLANTS

CHENOPODIACEÆ.

GOOSEFOOT (*Chenopodium* sp.).—Three, if not more, species of this genus have been used as potherbs or salads, but they are now generally replaced by Spinach, an introduced plant and not a native. One species (*C. maritimum*) is a seaside plant, and bears fleshy leaves. It is one of the several maritime plants which formerly supplied "Barilla," an impure carbonate of soda, for glass-making. They are now superseded by an article manufactured from sea-salt.

Marsh Samphire (*Salicornia herbacea*).—Like the last-mentioned, this frequents salt marshes. It is remarkable for its jointed, succulent, and leafless stem. It was also collected for Barilla. It is sometimes used for pickling, as a substitute for Samphire, and called in consequence Marsh Samphire.

Saltwort (*Salsola Kali*).—This also was used for extracting Barilla. It is easily recognised by its prickly leaves, which are somewhat fleshy at the base, but terminating in a sharp point.

Beet (*Beta maritima*).—This is now the most useful member of the family. It is naturally a perennial, but under cultivation it has become a biennial. It was well known to the Ancients, who cultivated "black and white" varieties, the names referring to the colour of the leaves, as it was only grown for salad or as a pot-herb. The mid-



THE LATE MR. HERBST.

his long career he travelled much, spending many years in Brazil, where he was Director of the Botanic Gardens in Rio de Janeiro, and going thence to the Mauritius and the Cape, by command of the Emperor of Brazil, to collect the best varieties of Coffee and Sugar Cane prior to settling in this country, upon the very ground where he died after a well-earned and comfortable retirement. From the mass of certificates of character placed at the disposal of the writer, it is abundantly evident that his career from beginning to end was an exemplary one for the young and ambitious gardener to follow. Thoroughness in both study and labour, coupled with intelligent appreciation, not merely

rib of the white—presumably meaning pale green—was called "Sicula," now spelt "Cycla," and, like the same part of the blanched Artichoke leaves, is called "Chard." Gerarde in 1577 alludes to the great variety of colours of the foliage produced by seed, observing of it: "With which plant Nature doth seeme to plaie and sport hirselfe; for the seeds taken from that plant which was altogether of one colour and sowed, doth bring fourth plants of many and variable colours." These are often now cultivated for ornamental purposes. No use was made of the root, but Gerarde says of it: "What might be made of the red and beautifull roote, I refer unto the curious and cunning Cooke, who no doubt when he hath had the view thereof, and is assured that it is both good and holmesome, will make thereof many and divers dishes both faire and good." At the present day it is the root only which is of value. There are several varieties of the kitchen garden forms, and also of Mangold Wortzel of the farm crops. Besides these it is cultivated abroad for sugar. This is the variety *Cycla*, which also supplies the Chard.

#### POLYGONACEÆ.

*Bistorta* (*Polygonum Bistorta*).—This species is not uncommon in moist fields of northern counties, as, e.g., Derbyshire. It is conspicuous for its dense spike of pink flowers. The specific name, meaning "twice bent," is derived from the twisted rhizome, which bears tuberous roots. It is this underground stem which is useful on account of the large amount of tannin it possesses, being one of the most astringent of British plants. It also contains starch, so that after being roasted it has formed a useful article of food in Russia and Siberia in times of scarcity.

*Sorrel* (*Rumex Acetosus*).—The acidity of the leaves of this well known and common plant is due to the presence of biocalate of potash. This is really of a poisonous nature, being sold as "Salts of Lemon," useful for removing ink stains (when the ink is made from Oak galls and a salt of iron). In the plant, however, it is not sufficiently strong to be injurious, so that the plant has long been used as a salad plant. Nevertheless, children have suffered from eating the leaves too freely.

#### THYMELACÆÆ.

*Mezereon* (*Daphne Mezereum*).—This is not a very common shrublet wild, but it is often grown in gardens for its pink flowers, which appear before the leaves, and its scarlet berries. The whole plant, as also that of the common Spurge Laurel (*D. Laureola*), is powerfully irritant. The juice will cause inflammation, and has accordingly been used for blistering. A few berries will even cause death. The bark constitutes a recognised drug in our British pharmacopœia. It is used externally as an irritant. (G. HENSLOW.)

(To be continued.)

## SOCIETIES.

#### ROYAL HORTICULTURAL SOCIETY.

THERE was an excellent display of plants and flowers at the Drill Hall on Tuesday last. Orchids were magnificent, two gold medals being awarded by the Orchid committee, one to a large group of *Dendrobium* from Mr. W. A. Binley, the other to some *Odontoglossum* hybrids of remarkably rich colouring from Mr. Norman C. Cookson. There were numerous awards to new Orchids. Hardy flowers, forced shrubs, Daffodils, &c., were exhibited in quantity, and, together with hot house plants, added greatly to the general display. The fruit and vegetable committee had only one exhibit before them. During the afternoon everyone seemed to be complaining of their inability to see the flowers properly owing to the crush. The new hall is progressing apace, and it is to be hoped that visitors will be able to examine the exhibits there with some degree of comfort.

#### FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. H. B. May, Charles T. Druery, R. Dean, J. Green, J. Jennings, William Howe, Charles Dixon, C. J. Salter, Charles Jefferies, George Gordon, H. J. Cutbush, R. W. Wallace, William Cuthbertson, Charles E. Shea, W. P. Thompson, E. H. Jenkins, George Paul, Charles Ellick, E. T. Cook, and H. J. Jones.

The very fine exhibit of alpine on rockwork, from Messrs. Cutbush and Son, Highgate, attracted a good deal of attention. Not only did it contain much that was good and rare, but the arrangement was both natural and in good taste. We have no room to cite the 100 or so different kinds shown, but select *Styliphorum diphyllum* (a yellow-flowered plant of much distinction and beauty), *Arnebia echinoides*, *Iris*

*Haynei* (best briefly described as a glorified *I. atrofusca*), several *Daphnes*, *Shortia galacifolia*, many choice *Saxifragas*, *Muscari botryoides album*, *Gentiana verna*, and the very pretty *Thlaspi rotundifolia*, &c. Shrubs in foliage and flower made a capital background. Silver-gilt Banksian medal.

From Messrs. William Paul and Son, Waltham Cross, came a very fine grouping of *Camellias*, large bushes full of bloom and in rade health. That these greenhouse shrubs are worth the growing is well proved by the exhibit now under notice, in which some eighteen varieties were seen. *Conspicua*, red; *alba plena*; *tambicata*, red; *Madonna*, pink; *Badicea*, soft pink; *Adelina Patti*, salmon, edged white; *mathotiana*, red-crimson; *Mrs. crimson*; *Reine des Fleurs*, rose-scarlet; and *Marchioness of Exeter*, salmon-scarlet, were among the best doubles. *Mercury* (new), semi-double crimson; *Waltham Glory*, single crimson, gold anthers; and *Jupiter*, salmon-scarlet, of fine form, were other notable ones. A batch each of *Clematis indivisa* and *C. l. lobata* were in the forefront of this display. Silver-gilt Flora medal.

Mr. J. Russell, Richmond, had a large exhibit of flowering shrubs, notably *Azaleas*, with *Forsythia suspensa*, *Staphylea colchica*, *Wistaria sinensis*, and a lot of *Clematis* interspersed. Silver Banksian medal.

Messrs. Cutbush and Son, Highgate, had a very large hank of forced shrubs, *Lilacs*, *Wistarias*, *Gueider Rose*, *Prunus*, *Ribes*, the richly coloured *Magnolia Lennei*, and other plants.

A similar exhibit of shrubs came from Messrs. B. S. Williams and Son, Holloway, but here *Azalea mollis* was freely used both as standards and dwarfs, standard *Lilacs*, standard *Prunus*, many fine *Palms*, with *Acer* foliage here and there, completed a large, imposing array of this useful class of plants. Silver Banksian medal.

Mr. J. May, St. Margaret's, Twickenham, had a remarkably fine lot of *Cyclamen persicum giganteum*. The strain is an excellent one, and the flowers are remarkable for size and fine colouring, and some 150 plants were set up in shades of crimson, white, lilac, &c. There were also named varieties. The plants are eighteen months old, the seed having been sown in September, 1902. Mr. May has upon many occasions displayed the results of his labour and skill, but we think he has upon this occasion quite surpassed all previous efforts. Silver Flora medal.

Mr. R. Anker, Napier Road, Kensington, showed small pots of *Trifolium repens pentaphyllum*, a dark-leaved creeping Shamrock. The plants in small pots attracted a good deal of notice.

Messrs. T. S. Ware and Co., Limited, Feltham, had a group of hardy things, in which single and double *Primroses*, *Aubrietias*, and early *Saxifragas* were seen to advantage. Some of the *Cushion Iris*s, as *I. Haynei*, *I. atrofusca*, *I. susiana*, *I. iberica*, &c., were shown in flower. Very beautiful, too, were *Anemone blanda*, and such *Primulas* as *P. viscosa nivalis*, *P. denticulata*, *P. mollis*, and many forms of *P. Sieboldi*, *Megasea Stracheyi*, *Soldanella alpina*, and the pink-flowered *Androsacea carnea* were also noted.

Pot Tulips and *Narcissi* were well shown in quantity by Mr. Howe, gardener to Lady Tate, Streatham. Such Tulips as *Duchess de Parme*, *Unique*, *Grace Darling*, *Vermilion*, *Brilliant*, and others were noted. In the *Narcissi* we noted *Empress*, *Glory of Leiden*, *Sir Watkin*, *Emperor*, and *Golden Spur*, pots of *Lily of the Valley*, *Spiræas*, and *Solomon's Seal*, with *Palms*, completed a fine group. Silver Flora medal.

Mr. H. B. May, Edmonton, had an exhibit of *Clematis* in flower, such as *Albert Victor*, *mauve*; *Miss Bateman*, white; *Marcel Moser*, rosy mauve; *Fair Rosamond*, white; *Lord Wolsley*, reddish purple, and others, arranged amid *Ferns*, *Boronia heterophylla*, *Gardenias*, &c.

A batch of fifteen plants of *Primula Forbesi* crowded with flower spikes constituted an exhibit from Mr. W. C. Medral, Biggleswade. The mass of rosy lilac white-eyed flowers was very charming. Bronze Banksian medal.

Pot Tulips with *Polyanthus Narcissi*s, both in considerable variety, came from Messrs. B. S. Williams and Son, Upper Holloway.

The exhibit from Messrs. Wallace and Co., Colchester, contained many fine things in masses, such as *Shortia galacifolia*, *Anemone Pulsatilla*, *Iris reticulata*, *Primula megaseifolia*, *Hepaticas*, *Saxifraga bursieriana major*, *Iris stylosa*, *Primula rosea*, *Anemone blanda*, *Gentiana verna*, and many *Crocus* species in charming variety.

The cut Roses from Mr. George Mount, Canterbury, were, as usual, very fine, strong stemmed flowers. Many sorts were shown, the most notable being Mrs. Sharman Crawford, Mrs. J. Laing, Ulrich Brunner, Captain Hayward, rich in colour and fine in texture; *La France*, and Mrs. W. J. Grant being very handsome. Silver Flora medal.

Messrs. Veitch and Sons, Limited, Chelsea, had a small group of *Corylopsis paniculata*, as well as a much larger exhibit of *Hydrangea hortensia rosea*, whose flowers were of quite gentian blue, due in all probability to the chemical constituents of the soil; one or two plants, however, had rose-coloured heads, apparently uninfluenced by it. *Rhododendron Veitchii*, a pure white, made an exquisite exhibit; *R. Ne Plus Ultra*, a richly coloured variety of a red-scarlet shade, and cut blooms of *Camellia reticulata* were also shown. Silver Banksian medal.

Hardy plants, mostly *Primulas* and *Anriculas*, came from Messrs. J. Peed and Son, West Norwood. *Primula denticulata alba* was very good, and with many *Saxifragas* and other early flowers a pretty show was made.

Tree Carnations from Messrs. Cutbush were very beautiful, some dozen or more varieties being shown in the cut state, Mrs. Brooks, *Winter Beauty*, *Duchess of Portland*, Mrs. J. Lawson, *Hon. H. Fellowes*, and *Chas. H. Curtis* being of the best.

The Guildford Hardy Plant Nursery sent a pretty group of early things. *Megasea Stracheyi*, *Banua aizoides*, *Saxifraga oppositifolia alba*, *S. apiculata*, a very fine mass of yellow, *Anemone blanda*, *Primrose Miss Massey*, *Saxifraga sancta*, and a few of the shrubby *Veronicas*.

A collection of *Violets* from Mr. Charles Turner, Slough, were of more than ordinary interest, and the plants as shown in large masses gave a capital idea of their worth. *La France*,

very dark; *Princess of Wales*, *Marie Louise*, *wellsiana*, *Comte de Brazza*, white; *Mrs. J. J. Astor*, reddish; and *New York*, pale blue, were among those shown. Two dozen plants of the new crimson *Polyantha Rose Mme. H. Levassens* were also exhibited in flower by Mr. Turner. It is a pretty, free flowered, semi-double variety, the plants flowering well when 1 foot high. Silver Banksian medal.

Messrs. Cannell and Sons, Swanley, had a fine group of the forms of *Cineraria stellata* in great variety, while near by Messrs. Cripps and Son, Tunbridge Wells, staged on the floor a splendid lot of *Acers*. A large number of sorts were noted, the fine-leaved forms being especially good and pleasing. Some of the best were *A. palmatum dissectum variegatum*, *A. p. roseum magnificum*, *A. p. dissectum purpureum*, *A. japonicum aureum*, *A. palmatum flavescens*, &c. Silver Flora medal.

*Priaroses* in much variety, single and double, *Polyanthuses* in many colours, and the old blue *Primula elatior*, in company with the pale salmon and quilled *Dailey Alice* (so recently figured in THE GARDEN) were prominent among many things from the Misses Hopkins, Mere, Knutsford, Cheshire. Other interesting things were *Scilla bifolia rosea*, of which a good tuft was shown, some of the early *Saxifragas*, and other spring flowers. Vote of thanks.

A new double *Violet* of the *Marie Louise* type, with large blossoms, came from Mrs. Brassey, Chipping Norton. It was named *Countess of Caledon*, and is certainly free and sweetly perfumed.

Messrs. Barr and Sons, Covent Garden, were in strong force with alpine and hardy things in one direction, and forced Daffodils in another. Of the latter we noted fine masses of such rich yellows as *maximus*, *Santa Maria*, *Golden Spur*, *Henry Irving*, the large form of *N. Bulbocodium*, and the pigmy *minimus*, while *Princess Ida*, *Mme. de Graaff*, *Victoria*, and *Gloria Mundi* were representatives of other sections. In the alpine and herbaceous things, *Lentea Roses*, *Anemone fulgens*, *A. coronaria* in variety, *Iris stylosa*, *Scillas*, *Muscari*, *Erythroniums*, and *Narcissus cyclamineus*, some with 4-inch stems as the result of quite ordinary culture, and others established and growing in damp ground, with stems more than 1 foot long, were included. Quite an array of choice alpine were also shown. Silver Banksian medal.

Messrs. R. and G. Cuthbert, Southgate, staged a fine lot of forced shrubs, well grown and well disposed. *Lilacs* in variety (dwarfs and standards), *Azalea mollis* and *A. occidentalis* var., the former resplendent in many shades of colour, *Wistarias*, *Laburnums*, *Prunuses*, the *Gaeuler Rose*, and others associated with *Palms* made a most effective display. Silver-gilt Banksian medal.

Mr. H. J. Elwes, Colesbourne, Gloucestershire, showed *Cantia dependens*, with its large tubular carmine-crimson flowers in terminal drooping bunches. It is a most striking plant for the greenhouse.

From the Wisley garden of the Royal Horticultural Society came a most interesting lot of things, *Iris alata* (good in every way), *I. reticulata*, *Chionodoxa gigantea*, *Dog's-tooth Violets*, *Narcissus cyclamineus* (a beautiful gathering, with strong stems 1 foot long), *N. versiformis*, *N. obvallaris*, *Fritillaria aschabadensis*, and others.

#### AWARDS.

*Anemone (Hepatica) angulosa alba*.—It was to this excellent spring flower that the only award was made by this committee on Tuesday last. The variety is not new, but now, as always, very scarce. It is, as the name implies, a white form of the plant long known as *Hepatica angulosa*, and as such, with its florin-large white flowers, requires no further recommendation or description. From Messrs. Barr and Sons, Covent Garden. Award of merit.

#### ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Messrs. James O'Brien, Walter Cobb, H. Ballantine, Norman C. Cookson, de B. Crawshaw, Jeremiah Colman, H. T. Pitt, J. Charlesworth, W. A. Binley, A. A. McBean, F. W. Ashton, F. Sander, M. Gleeson, J. W. Odell, W. H. Young, H. A. Tracy, Francis Wellesley, H. Little, J. Wilson Potter, H. G. Morris, H. J. Chapman, and F. A. Rehder.

A splendid bank of *Dendrobium* was shown by W. A. Binley, Esq., Weybridge. The plants filled one side of a long table, and being finely flowered made a grand display. *D. nobile nobilis* was conspicuous throughout by its deep colouring, and there were large specimens of *D. wardianum* with an abundance of bloom. *D. w. virginale*, with its white sepals and palest sulphur coloured lip, was one of the most attractive, and among others worthy of special note were *D. Wiganii*, *D. Ainsworthii aureum*, *D. Ainsworthii Gwendolen*, *D. rubens grandiflorum*, *D. Cybele giganteum*, *D. nobile ballianum*, *D. n. Cooksoni*, *D. Juno*, *D. Hebe*, *D. bymerianum*, *D. thyriflorum*, and *D. ambrintium*. One of the plants of *D. nobile nobilis* had no less than 175 flowers. A gold medal was awarded by the Orchid committee to this exhibit.

A gold medal was also awarded to Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman), for a group consisting chiefly of beautiful forms of *Odontoglossum*. There were some charming unspotted forms of *O. crispum* and *O. Pescatorei*, and these added to the effect of the display, towards which heavily spotted forms of *O. wilckeanum*, *O. crispum Marie*, *O. harryano crispum*, *O. crispum massangeana*, *O. c. Luciani*, and *O. c. amesianum*, contributed largely, as well as others which obtained awards and are described under "New Orchids."

Messrs. Sander and Sons, St. Albans, exhibited a group of Orchids that contained many good things, some of which obtained awards and are described elsewhere. *Odontoglossum wilckeanum* var. *Emperor* was conspicuously fine among the *Odontoglossums*. *Dendrobium* were well represented, *D. devonianum* being very good. *Oncidium concolor* made a bright hit of colour, and *Miltonia leucomobilis*, *Trichopilia suavis*, *Lelio-Cattleya calumnata*, *L. C. Pan-quana*, several *Phaius*, *Epidendrum paniculatum*, *Cattleya Vulcan*, and *Cymbidium eburneum-lowianum* were also very good. Silver-gilt Flora medal.

# THE GARDEN

No. 1689.—VOL. LXV.

[APRIL 2, 1904.]

## DESTRUCTION OF WILD FLOWERS.

**W**E are gratified that the remarks in *THE GARDEN* recently in condemnation of the wanton destruction of British wild flowers has aroused interest.

It is a subject surely that should touch the hearts of all who love the flowers, and the birds, and the delights of country life, and it is not unreasonable to hope that the time is not far distant when the flora of these beautiful isles will be saved from extinction. Many species are already lost to us, or practically so, and even the Primrose on the warm, sheltered bank and the Fritillary in the lush meadow are in peril of complete annihilation if this senseless grubbing up of wild flowers is tolerated for another generation.

One correspondent writes: "I am delighted with the article in *THE GARDEN* on the destruction of wild flowers, and I am very glad to see that the subject has been brought before the Horticultural Club. My sister and myself have long thought that some Bill ought to be brought into Parliament to prevent the wanton destruction that is going on! We are quite in the country and four miles from a station, but even here we are often met with Ferns and Primrose roots on their way to Brighton. Nearer the railway Primroses have entirely disappeared from places where they were abundant a few years ago. It is quite time some check should be put to such destruction."

Mr. J. R. Jackson, Lympstone, Devonshire, writes: "The question of the destruction of British wild plants, both by scientific and wholesale collectors, which formed the subject of a leading article in *THE GARDEN* of the 19th ult., page 195, and which was founded on a paper read by the Rev. George Henslow at a recent meeting of the Horticultural Club, is a matter that, whatever may be the case in other parts of England, has not escaped the attention of the authorities in the county of Devon. Very frequent convictions take place. That the game is a profitable one is more than proved by the payment of the fines and the constant repetition of the offence. With the view of meeting the difficulty in suppressing this trade, Mr. W. P. Hiern, M.A., F.L.S., of The Castle, Barnstaple, who is a well-known botanist and author of a valuable 'Monograph of the Ebenaceæ,' &c., and who is also a member of the Devon County Council, had a motion at a recent meeting of the Council

at Exeter for the introduction of a bye-law 'Providing that any person above the age of fourteen or anyone who induced any child below that age to uproot Ferns and wild plants should be liable to a fine not exceeding £2 for the first offence and £5 for the second.'" Commenting on this the *Devon and Exeter Gazette*, which has taken a lead in the preservation of the natural beauties of the county, calls attention to two advertisements recently appearing in a London newspaper, which we copy as illustrations of the nature and extent of the trade:

"Beautiful hardy North Devon Ferns, from the borders of Dartmoor, named varieties, splendid for rockeries, shady corners, and cool greenhouses; 20, 1s. 6d.; 40, 2s. 6d.; 100, 5s.; free; payment preferred after plants are received. Extra and larger specimens sent if per rail, carriage forward."

"Devonshire Ferns, various, 40 beautiful roots, 1s.; 50 assorted, 2s.; 12 for windows, 1s.; 25 large rockery roots, 2s.; 30 Hart's-tongues, 1s.; free."

We suppress the names and addresses of these dealers, which are given by our contemporary, not for the purpose of assisting their trade, but with the view of stopping it by drawing attention to those who aid and abet such practices, but we agree that "it would seem that men sent from London are not the only ones to whom the authorities might, with advantage, give their attention."

The Royal Horticultural Society, with its powerful influence for good in horticultural matters, might take up this question and bring pressure to bear in the right direction. A lecture after one of the fortnightly meetings would bring the subject to more general notice, and encourage the Fellows individually to use their best endeavours to put down the practice. Many beautiful estates are entered for the sake of collecting roots to sell in the nearest markets, and greater vigilance on the part of the owners would lead to more frequent convictions. The wilder country lanes and woodlands are of easy access in these days of bicycles and other ready means of locomotion, and we are glad the beauty spots in this fair land of ours are not hidden from the toilers in town and suburb, but to destroy the things that give this refining influence is disgraceful. A few societies, the Selborne in particular, are earnest in their endeavours to preserve the flower and bird life of this country, but save us from the well-intentioned efforts of many "Nature" and County Council organisations

who let loose troops of men and women to study the flowers of the field on the spot. The first lessons to instil in their minds should be a right understanding of the mission of a flower, to study it in the same spirit as one would collect postage stamps shows little reverence for these jewels of the earth, which bring their sweet messages as the seasons pass by to those who are willing to heed them.

## THE NEWER EARLY CHRYSANTHEMUMS.

### FLOWERS FOR THE AUTUMN GARDEN.

THE early-flowering Chrysanthemums recently introduced are a great advance upon previous introductions, and our thanks are chiefly due to the French raisers, although English raisers have raised several beautiful varieties. The new English race of early-flowering Chrysanthemums supplies a distinct break. The novelties which now abound have flowers of charming form and beautiful colours. They are not semi-double, but large and full. It is as plants for the outdoor garden that the early-flowering Chrysanthemums promise so well. In beds and borders where they can be planted freely they make a remarkable display in August, September, and October, and their culture from May onwards is very simple. Of the many beautiful seedlings seen last autumn, those in the subjoined list are among the best.

### JAPANESE.

*Flame*.—A charming Japanese sort; colour, bright crimson, with golden centre, and golden buff reverse. The flowers are of medium size, and the plant, which is of branching growth, is very free. Height 3 feet.

*Howard H. Crane*.—This is excellent. The colour is bright chestnut, shaded scarlet, with golden in the centre and reverse side of the florets. The Cactus-like flowers are extremely handsome. A most effective plant. Height 3 feet.

*Doro Blick*.—A distinct Cactus-shaped flower, produced in charming clusters on long stalks, and making handsome sprays for cutting. Colour soft pink, tinted mauve, tinted and tipped with gold. Good habit.

*Illuminator*.—This colour is always much admired; it is bright yellow flamed with red. The plant is very free, and the flowers large. Height 3 feet to 4 feet.

*Firefly*.—A very free-flowering Japanese, with flowers of bright crimson-scarlet, tinted with gold.

*Achievement*.—Those who are familiar with the lilac-mauve flowers of Mme. Marie Masse will appreciate this new sort when it is said to be somewhat like that variety, but the flowers are larger. The plant is very free. Height 3 feet.

**Supreme.**—This bears its flowers on very stout and erect stems. The colour is a striking canary-yellow. Height 2½ feet.

**Firelight.**—This variety has flowers of a beautiful warm reddish crimson, with golden reverse, also tipped gold; the medium-sized blooms are in graceful sprays. The plant has a good branching habit of growth, and blooms profusely. Height 2½ feet.

**Captivation.**—This is first among varieties of a bright rosy amaranth colour; the petals have a silvery reverse, and the centre of the flower is golden. The flowers are large, and developed in elegant sprays. Height 2½ feet.

**Pride of Keston.**—From 100 selected Japanese seedlings, each worthy of extensive culture, this variety was chosen for its all-round quality. First of all, its colour is very distinct; it is reddish amaranth, with bright silver reverse. Each flower is of perfect form without disbudging. Height 3 feet.

**Mrs. A. Cookson.**—Another Cactus-shaped flower, clear rose in colour, tipped with gold. The flowers are on erect stems in handsome sprays, so useful to cut for decoration. Height 3½ feet.

**Nina Blick.**—A fine addition; the colour may be described as bright scarlet-red, with age passing to a rich golden-bronze. This variety is of special value for bunching, and may be regarded as a most distinct Chrysanthemum. Those who have seen this fine sort cannot speak too highly of it. Height 2 feet.

**Rocket.**—This is considered to be a much improved Crimson Marie Masse, but the flowers are fuller, and they appear at the same time. The colour is chestnut-bronze, though when first opening an intense crimson-chestnut better describes the colouring.

**Hylda Blick.**—A welcome addition to the bright rose-coloured sorts. The flowers are lined with white, and the centre is primrose; of Cactus shape, and the blossoms set well apart, the latter being in graceful sprays, and the plants are remarkably free. It is safe to give this new variety a high place in the collection. Height 3 feet.

**Janie Brown.**—Another pretty Cactus-like flower, borne in profusion. The colour is a distinct shade of purple-amaranth, and distinctly pleasing. Height 3 feet.

**Nina Williams.**—Goacher's Crimson is now so well known that it is interesting to meet with a seedling that is likely to supersede it. This variety is much brighter in colour and also more lasting. The flowers are not so large, however, but they are more freely produced, and there is a golden reverse to the petals. Height 3 feet.

**Constancy.**—In this instance the colour is a glorious shade of orange-amber, with a reddish tint. The flowers are full, of good shape, and the plant is dwarf in growth.

**Dainty.**—As the name implies this is a flower of dainty form and charming colour, which is a delicate shade of soft pink. For use in the garden it has a special value for its dwarf and compact growth.

*Highbate, N.*

D. B. CRANE.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 5.—Royal Horticultural Society's Drill Hall Meeting.

April 8.—Truro Daffodil Show (two days).

April 12.—Brighton Horticultural Show (two days).

April 13.—East Anglian Horticultural Club Meeting.

April 26.—Birmingham Auricula Show.

**Royal Horticultural Society.**—Fifty-five new Fellows were elected at the recent meeting, among them the Earl of Tankerville, the Earl Waldegrave, Lady Fiolay, Lady Leese, Lady Katherine Somerset, and Captain W. Percy Standish. The next meeting and show of the society will be held on the Tuesday in Easter week, the 5th inst., when a paper on "Villa Gardens" will be read by Mr. Hugh P. C. Maule.

**The King and the Royal Horticultural Society.**—A crowded general meeting of the Fellows of the society was held at the last meeting, when the following letter from His Majesty the King was read:—

Buckingham Palace, March 10, 1904.

Gentlemeo,—I am commanded by the King to acknowledge the receipt of your letter of the 8th instant, sent to His Majesty through the Home Secretary, and to inform you that His Majesty is pleased to accede to the request of the President and Council of the Royal Horticultural Society—to become Patron of the society. I have the honour to be, Gentlemen, your obedient servant,

D. M. PROBYN, General, *Keeper of His Majesty's Privy Purse.*

Sir Trevor Lawrence, Bart., K.C.V.O., J. Gurney Fowler, Esq., Rev. W. Wilks, M.A.

This letter was unanimously ordered to be entered on the minutes, and the following reply was ordered to be sent to His Majesty:—

Royal Horticultural Society, March 22, 1904.

To the King's Most Excellent Majesty.

May it please Your Majesty, We, the President, Council, and Fellows of the Royal Horticultural Society, being this day in General Meeting assembled, would most humbly and dutifully convey to Your Majesty our most grateful thanks for bestowing on us the favour and support of Your most gracious Patronage, conjointly with that of Her Majesty the Queen, in commemoration of the completion of the first century of our society's efforts for the benefit and improvement of British Horticulture. At the same time, we would also venture to approach Your Majesty with the expression of our deep sense of grief at the heavy loss which Your Majesty's Royal House has sustained by the death of His Royal Highness the Duke of Cambridge, K.G., beside whose grave the whole nation mourns at heart to-day. No class of Your Majesty's subjects are more devotedly attached to Your Throne and Person than the Horticulturists of this country, who will ever pray that Your Majesty may long be spared to reign over this happy realm.

Signed on behalf of the Fellows,

TREVOR LAWRENCE, *President.*

J. GURNEY FOWLER, *Treasurer.*

W. WILKS, *Secretary.*

**London Dahlia Union.**—The annual exhibition by the Union will be held in the Prince's Hall of the London Exhibitions on Thursday and Friday, September 15 and 16. The schedule of prizes has been extended, and one feature of more than ordinary interest at this exhibition will be the competition for the special prizes offered by Mr. F. G. Gledstanes for six vases of Cactus Dahlias, distinct, three blooms of one variety in a vase, of the sorts best adapted for garden decoration, the flowers to be on stems raising them well above the vase, and no supports to the stems will be allowed. Mr. Gledstanes, who is a great admirer of the Cactus Dahlia as a border plant, is offering a series of four prizes, extending over three years, for the purpose of encouraging the development of Cactus Dahlias for border decoration, old as well as new varieties. This should prove an interesting as well as an educational class, and he of decided practical value. The secretary is Mr. R. Dean, V.M.H., Ranelagh Road, Ealing, W.

**A great Orchid sale.**—At the great sale of the Harefield Hall collection of Orchids on Wednesday and Thursday, the 23rd and 24th ult., some remarkable prices were obtained. A plant of *Odontoglossum crispum ashworthianum* was sold to

Messrs. McBean of Cooksbridge for 340 guineas. Mr. Morris, of Messrs. Protheroe and Morris, announced that this was a record price with them under the hammer. The plant only had one bulb. *Cattleya guttata Prinzii* var. *Saoderæ* (six bulbs), the albino *C. guttata* was bought by Mr. Duckworth for 200 guineas. A very small plant of *C. Mendelii Bluntii* var. *E. Ashworth* fetched 32 guineas, and *Cypripedium insigne Harefield Hall* variety realised 11 guineas and 13 guineas respectively. A very small plant of *Cattleya superba alba* var. *E. Ashworth* went for 31 guineas.

### Training *Chimonanthus fragans*.

On looking over back numbers of THE GARDEN I came across a note on the Winter Sweet, by Mr. H. T. Martin (page 161), in which he advocates close training to a wall, as with a Plum tree, and the spurring in of the shoots in the manner practised with this fruit. Such advice is doubtless valuable in the colder portions of the British Isles, but I should be inclined to deprecate its universal adoption in the warm climate of the south-west, where I know many specimens of the *Chimonanthus* grown in bush form which are really decorative objects in the winter time, whereas, when this shrub is tightly trained to a wall it has no ornamental value whatever, the pale, yellowish green flowers being practically inconspicuous against the stones. A large bush grown on a lawn and backed by a Yew or other evergreen tree is a pretty sight when in full flower, its innumerable blossoms on their leafless branches being thrown into high relief by the dark background. I know of one example so situated, measuring about 8 feet in height and 7 feet through, that is always a delightful sight at Christmastide, while on still days the air is scented for yards around with the fragrance of its blossoms. This specimen has not been touched by the knife for years, yet never fails to bloom freely. In the same garden is another much larger example of the form known as *grandiflorus*, which is about 15 feet in height, but is far less effective than the specimen first mentioned, as it was originally planted against a low wall, and when it had topped that was allowed to grow as it would, with the consequence that it has formed a bushy-headed small tree, whose flowers are displayed somewhat ineffectively against the sky. Where the production of flower sprays for indoor decoration is the only object aimed at, however, there is no objection to the shrub being trained and pruned as advised in the note alluded to. The blossoms are always welcome in the house when arranged in shallow bowls from the delicious perfume they exhale.—S. W. FITZHERBERT.

**Exhibiting Grapes.**—In THE GARDEN for the 19th ult., page 197, appears a notice that the Shropshire Horticultural Society will adopt the Royal Horticultural Society's "Rules for Judging" scale of pointing: Muscat Grapes, black or white, eleven points, maximum; and for all other, black or white, ten points. The finding of eleven points, even in a perfect bunch of Muscat Grapes appears to trouble not a few good Grape growers; and so it is with the other varieties, for which ten points are to be the maximum. After size and symmetry of bunch, size of berry, colour, ripeness, flavour, variety, and general appearance, how are the other two or three points, as the case may be, enumerated? To intending Grape exhibitors at the above or any other exhibition a little further enlightenment as to the real finding of the points would be interesting, and would save much unpleasantness to the parties concerned.—J. P. LEADBETTER, *The Gardens, Tranby Croft, Hull.*

**"Heredity of Acquired Characters."**—At the recent meeting of the Royal Horticultural Society Professor Henslow delivered a lecture on the "Heredity of Acquired Characters," in which he pointed out that the changes in plants are produced by change in external surroundings, and after giving the views formerly held by Darwin and Wiseman, and explaining the terms "germplasm," "protoplasm," "stomas," &c., he showed that as the plant grows it builds up just the fruit, flowers, or seeds it requires. He illustrated his remarks with some magnificent cartoons of the same plants in the greatest possible

variety in different parts of the world and under varying conditions, such as the Ranunculus family growing in water, in mud, or in the ground.

**Cestrum aurantiacum.**—Under favourable treatment this makes a very pretty pot plant for the autumn, but it is very rarely we meet with it in good condition; probably, if it could be reintroduced as a new plant we should hear more of its merits. The bright orange-yellow flowers are produced in terminal panicles, and it may be flowered well as a dwarf plant in a 4½-inch pot. It may be propagated any time during spring. Short cuttings from strong shoots make the best plants. Grown on in an intermediate temperature the plants may be stopped once, or they may be grown without any stopping and will produce large terminal branching panicles of the richly coloured flowers. It is a plant of easy culture, the chief requirements being good, rich potting compost, and liberal supplies of manure after the pots are well filled with roots. It is not much troubled with insect pests, at least when I have grown it I have never found it so. It is chiefly as a small pot plant that I have grown it, but it is also suitable for planting against a wall, and forms a good companion to *Cestrum Newelli*, or *elegans*, which is better known in gardens as *Habrothamnus*. I may add that *Cestrum aurantiacum* was introduced from Guatemala in 1842, but like a good many other old friends it has been overlooked in the race for modern novelties.—A. HEMSLEY.

**Potatoes in 1903.**—According to the "Agricultural Returns" used by the Board of Agriculture the "Potato crop of the past year was very indifferent, the estimated average being only 5·16 tons, as against 5·57 tons in 1902. In only four counties of England and Wales was the crop reported as exceeding the decennial average. The main crop in the important Potato-growing county of Lincoln was much diseased, and badly harvested owing to the wet condition of the land. In Lancashire a large extent of land was reported to be unproductive from the same cause, the tubers rotting in the ground. One result has been to create an active demand for disease-resisting sorts for seed. In Scotland the position appears to have been somewhat more satisfactory than South of the Border, though a good deal of disease is reported in the crop. In the southern counties the results were summarised by one estimator as follows: "The crop was a partial failure owing to cold, too much wet, and want of sun. Growers began to lift the crop late in the autumn under unfavourable conditions, and on heavy soils it was thought that an appreciable proportion of the crop would be unfit for table use."

**A new Smilax.**—The new Myrtle-leaved *Smilax Medeloa* or *Myrsiphyllum asparagoides myrtifolia* is a plant that appeals to the gardener as one that may be of exceptional value. It will prove as valuable as *Asparagus Sprengeri*, and is quite as beautiful, though of an entirely different type. It is very much more delicate and graceful than the common *Smilax*, the leaves being much smaller—only about one-sixth the size—and the young tendrils being much more artistic than the stiff branches of the common *Smilax* make it a more beautiful green for decorative purposes. The newcomer produces many more lateral shoots than the common *Smilax*, and on this account it is advisable to carry it up on several strings, thus making it a more profitable plant to grow, especially for the home. It is a stronger and more vigorous grower than the common *Smilax*, and its hardiness and durability are more remarkable, strings remaining fresh six to eight days after being cut and eight to twelve days when placed in water. It will commend itself to every grower of cut flowers, as there is so little variety in good greens for cut flower work. This *Smilax* originated in Europe about six years ago, and has proved constant since. Thus far no seed has been obtained, propagation being effected by division of the bulbs only, which are produced very rapidly.—*American Gardening*.

**Fruit-growing in Nova Scotia. Model orchards.**—Fruit-growing in this favoured province of the Dominion is an industry of the first importance. The Nova Scotia Govern-

ment, by the establishment of twenty-five model orchards—in every county of the province—is wisely influencing the range of profitable fruit cultivation. The possibility of growing Peaches on a commercial basis in Nova Scotia has always been a very debatable subject, but the results now obtained on systematic lines go far to prove that Peaches can be made an important asset in the fruit-growing industry. The most successful varieties are the *Elriv* and the *Elrose*, crosses of the *Elberta* and *Early Rivers'*, and *Elberta* and *Mountain Rose* respectively. In late Plums, *Cox's Emperor* and the *Late Orange*, imported originally from England, have now been demonstrated to be valuable market sorts for Nova Scotia; the former ripened by October 1, while the *Late Orange* was not ripe until October 10, and was still in good condition by December 1. The latter variety should prove valuable for canning purposes, as it comes late in the season, when most of the other kinds are gone. At these model orchards much valuable information is being accumulated and distributed on such matters as spraying with different insecticide solutions, and the seeding down orchards with cover-crops of nitrogenous and non-nitrogenous plants, such as Clovers, Vetches, Alfalfa, and Buckwheat. The prevention of winter killing of trees, which is mainly confined to the Peach and Apricots, is being successfully overcome by getting trees into a dormant state early in the autumn by stopping cultivation late in June and sowing a cover-crop. There is also the Government School of Horticulture at Wolfville, where the tuition is free.

#### SPRING'S LEGACY.

THE Spring to me did say,  
"I must from here away;  
But all my joy and glee  
I gladly leave to thee.  
Guard it within thy heart,  
But give the world a part.  
To every forest fling  
A tender dream of Spring.  
To every flow'ret sweet,  
And to thy loved one's feet.  
Thus they shall not forget  
Me, nor my charms regret,  
Until I come again,  
In loveliness to reign."

—SYDNEY HESSELRIGGE.

—(From the German of Rückert.)

**Freesia Armstrongii.**—In reference to my note concerning this *Freesia* in *THE GARDEN* (page 194) I have received the following communication from Mr. Gumbleton, and as it contains much interesting matter bearing on the genus *Freesia*, I have forwarded it for insertion: "Allow me to take exception to some of your statements about the above-named bulb in paragraph appearing in last issue of *THE GARDEN*. You say it is not to be had from the ordinary trade sources, yet I purchased three bulbs of it last autumn at 5s. each from a leading Haarlem nurseryman and bulb importer. Then you say it is a more vigorous grower than what is commonly known as *F. refracta alba*. I cannot agree with you, as it has much narrower foliage and more slender growth, with a taller and more branched spike. My best spike, not yet open, has four branches, bearing eighteen flower-buds. I wish I could get the common error corrected as to the name of *F. alba*, which is not *refracta*, belonging as it does, according to my friend Mr. Baker, to a different section of the family, in which it stands alone. He divides the family into three sections: (1) *Odorata*, embracing all the forms known as *Leichtlini*, *L. major*, *tricolor*, *lilacina*, the late-blooming *bella*, and so on; (2) *alba*, distinct by itself; (3) *refracta*, embracing *aurea*, and I am sure also *Armstrongii*, and quite scentless. The typical form of this lot (figured by P. J. Redouté in his work "Les Liliacées" as *Gladiolus refractus*) I got bulbs of some years ago from Sir Michael Foster, M.P., and had to grow them for nine years before they bloomed, and when I saw the flower it was such a dull, ugly, greenish yellow that I threw them away. I am, however, pretty sure that the new rosy purple form of *F. odorata* (not yet

specifically named) recently imported by Mr. Wallace of Colchester, and which I hope to bloom in July or August, will quite throw *F. Armstrongii* into the shade, if it is what a coloured drawing done at the Cape when his bulbs were in flower and sent me by Mr. Wallace shows it to be." Concerning the exceptions to a part of my previous article, I may say that having enquired of several nurserymen I failed to find one who kept it in stock, while the statement as to its vigour was based principally on the behaviour of some bulbs of it imported from South Africa, while I have known it at Kew for some years as of free growth.—H. P.

**Aspidium anomalum.**—This remarkable Fern is closely allied to our British species *A. aculeatum*, possibly only an abnormal form. Botanically it is one of the most interesting of the whole Fern order, and to the practical gardener a curiosity. As seen in the illustration, the sori are developed on the upper surface of the frond, none being produced on the under



ASPIDIUM ANOMALUM—AN INTERESTING FERN.

side. Probably this is the only Fern possessing this characteristic. One or two species occasionally develop a few sori on the upper surface, notably *Deparia Moorei*, but in this species they are chiefly developed on the edge of the frond. The fronds are 18 inches to 2 feet in length, 10 inches to 1 foot in width, sub-coriaceous texture, deep green in colour, and the stipes are densely clothed with brown scales, especially near the base. Growing at considerable elevation in Ceylon, greenhouse temperature is sufficient, but a little warmer treatment in spring when producing new fronds is desirable. Little water should be given during winter, as it requires a resting period. Soil—fibrous loam and leaf-mould, with a liberal addition of coarse sand. The plant from which the photograph was taken is one of six received at Kew from Hakgala Botanic Garden, Ceylon, in 1898.—A. OSBORN, *Royal Gardens, Kew*.

**The Cornelian Cherry** (*Cornus Mas*) is now one of the brightest objects in the shrubbery or pleasure grounds. The slender, twiggy branches are studded with small bunches of clear pale yellow flowers, each bunch of about ten being surrounded by an involucre of four greenish brown bracts. A tree some 15 feet high, all its

slightly drooping branches covered with flowers, is a cheerful sight on a winter's day, especially if the yellow of the blossoms is made brighter still by a gleam of sunshine. This and *Hamamelis arborea* are indispensable winter-flowering shrubs.—A. P. H.

**Forced shrubs in the greenhouse.** In the spring of the year much of the attractiveness of the greenhouse is due to the presence of forced shrubs in flower. I should like to mention a few that one does not often see thus made use of, yet which are of the greatest value as flowering plants. *Pyrus floribunda* is one of the best of them. A bush plant about 6 feet high, bearing an abundance of white (sometimes faintly tinged with pink), starry-petalled flowers, and with leaves of a rich light green, peculiar to forced shrubs, makes a handsome object in the greenhouse. Another good shrub that forces well is *Prunus persica flore-roseo-pleno*, the Chinese Double Peach; it bears rather large flowers of the richest pink, and its leaves are hardly developed at all until the flowers are over. This *Pyrus* has dark stems which contrast finely with the rich pink flowers clustered about them. *Prunus japonica flore-albo pleno* bears a mass of double white, ball-like flowers, clustering on numerous slender stems. The small green leaves peeping between give welcome relief, and add to the plant's attractiveness. *Prunus Pseudo-Cerasus flore-roseo-pleno*, the Double Cherry, with its bunches of large blossoms, pink and blush coloured, and handsome bright green leaves, also makes an admirable display. *Prunus Cerasus Rhexii fl.-pl.* bears clusters of white double flowers towards the top of the shoots, and much resembles a pot-grown tree in bloom of a desert Cherry. *Prunus cerasifera atro-purpurea*, some 5 feet to 6 feet high, with bronze leaves and numerous rather small white flowers has a very pretty effect and deserves to be more often made use of in the decoration of the greenhouse.—A. P. H.

***Ipomœa rubro-cœrulea* as a window plant.**—By the words "window plant" I do not mean to say that this *Ipomœa* may be used as an ordinary window-box plant; it is to its use in a window recess inside the house that I wish to recommend it. I have seen plants trained on balloon or other shaped trellises used most effectively for the decoration of sunny windows in September. This charming plant is really half-hardy, but its flowers are so delicate that if produced out of doors they are soon disfigured. It must be grown under glass—at any rate, in most parts of the country—to be seen at its best. Seeds may now be sown in heat, giving the seedlings cool treatment, gradually harden them off, and, finally, pot into 8-inch pots. They will flower in these pots, and should be trained to the trellises soon after repotting.—H. A. P.

***Daphne indica* and Violets.**—Have any of your readers been so fortunate as to have in a room at the same time one or two plants of *Daphne indica* and a vaseful of Princess of Wales Violets? If so, they will know the delicious scent that pervades the air from the mingling of the perfume of the *Daphne* and the Violets. Of course, either one or the other of these flowers alone perfumes a room, but the two together produce a fragrance that is even more pleasing. Those who are fond of flower-scents in their rooms would, I am sure, be pleased with the result if they were to associate the two plants named.—A. P. H.

***Fuchsia splendens*.**—"T.'s" appreciation of this old favourite comes at an opportune time, for although many people properly make their summer bedding arrangements during the previous autumn, some, for various reasons, have not decided on all details, and may care to include this *Fuchsia*. Many pleasing combinations will readily suggest themselves. Last summer I saw *Fuchsia fulgens* and *F. corymbiflora* effectively used as dot plants in two long scroll beds of *Pelargonium* (*Geranium*) *Aurora Borealis*. On paper this seems perhaps bizarre, but in reality it was, especially during a comparatively sunless summer, very striking. When at Dropmore Mr. Herrin made good use of these *Fuchsias* as centre plants, in that portion of the gardens known as the Beeches. The plants were old ones, 5 feet to 6 feet high. A standard *Fuchsia macrostemma gracilis*, some

12 feet high, had a stem fully 20 inches in circumference, and ten years ago it was said to have been bedded out for seventy years. With me *Fuchsia corymbosa* is a much stronger grower and hardier than its companion *F. fulgens*, which, however, has the brighter flowers and deeper green leaves. The rosy midrib in the leaves of *F. corymbosa* is very attractive. "Nicholson's Dictionary of Gardening" gives the dates of introduction as 1830 (Mexico) for *F. fulgens*, and 1840 (Peru) for *F. corymbiflora*.—A. C. BARTLETT, *Botmin*.

## THE FLOWER GARDEN.

### GARDEN POLYANTHUSES.

**F**ROM the first of the now annual exhibitions of the National Auricula Society till the present the executive have put into their schedule of classes two or three for both garden Polyanthuses and Primroses. As a rule these classes have produced very attractive features, and the chief matter for regret has been that so far these classes could not be materially extended. I think this year there is a new class for a group of moderate dimensions of Polyanthuses, and if so that is some gain. But I have failed to notice that there has been in relation to the general quality, form, or beauty of the flowers shown any advance whatever for many years. May not this largely be due to the fact that the society fails to recognise in these flowers, and in the Polyanthuses especially, any of those points or features which are not only looked for but are indispensable to Auriculas and to gold-laced Polyanthuses. These two sections have long been recognised florists' flowers, and it is upon the lines laid down by florists that these flowers are judged. That being so, there is applied constant stimulus to growers not only to maintain in their flowers a high standard of excellence, but even to aim still higher if possible, as they sometimes successfully do when they raise superior seedlings. Why cannot some such stimulus be applied to the bright attractive but too often ill-formed and marked garden Polyanthus?

It is an unfortunate fact that we do not see such good flowers on these plants as were in evidence fifteen years since. When flowers are staged in competition for prizes at an exhibition of high-class florists' flowers, and under the auspices of an old florists' society, we are entitled to look for some evidences of those fine qualities which are essential. When an exhibitor of these Polyanthuses some years ago, I invariably sought for plants that had good, even heads of bloom borne on stiff, erect stems. The flowers sought for also had good rounded form, clearly defined colours or markings, correct thrum eyes, and clear lemon or yellow well-defined centres. Of the plants staged how many have flowers on long drawn stems that fail to support their blooms! Although the requirements of thrum eyes and clearly defined lemon or yellow centres in these flowers are apt to be disregarded, yet who would look at an Auricula or gold-laced Polyanthus that had not these features! There is so much room for the improvement of garden Polyanthuses that amateur growers should jump at the opportunity they offer to perform good work as florists. A. D.

### ASTER CORDIFOLIUS ELEGANS.

ANYONE ordering perennials at this season of the year should not fail to include this beautiful Michaelmas Daisy. It is better to get the plants in the spring than the autumn, as newly-purchased plants are usually small, and slugs are specially fond of this variety, with its shining, more or less heart-shaped, leaves. It grows about 5 feet high, but is too slender to stand without support. Though very easy to grow, it does not spread like some of the rampant kinds, the stool remaining as compact as that of a Phlox. It produces long, graceful sprays of very small soft lilac flowers in the greatest abundance, and at a time when most valued, namely, in October. For table decoration

it is, perhaps, the most valuable of all the Michaelmas Daisies, its delicate sprays of flowers of a low colour tone going well with almost anything else, and giving a bouquet of flowers just that light and airy gracefulness which is so much prized. It might be termed the "autumn Gypsophila," as with the late perennial Sunflowers, border Chrysanthemums, &c., it just takes the place of that popular plant. It should be given good cultivation, a deeply-dug, richly-manured soil, not necessarily in a sunny place, but a fairly moist one; all Michaelmas Daisies like moisture, and present a pitiable spectacle with the leaves hanging down the stems as if they had been scalded. A mulch should be put round it in a dry summer, though on our Essex clays it seems as if it would need a remarkable summer to render mulching necessary. ALGER PETTS.

### CARNATIONS FROM SEED.

If quantity of bloom is wanted, growers of Carnations would be well advised to raise their plants from seed rather than from layers. Seedling plants flower throughout a much longer period than those raised from layers. September is early enough to sow the seed. This should be sown in pans, and the seedlings subsequently pricked off into small pots and wintered in a cold frame. They may now be planted out in the border or wherever they are to bloom, and may be relied upon to be in flower from July to late autumn, which is more than one can say for layered plants. Those who grow Carnations chiefly for the purpose of providing cut flowers will find it much more satisfactory and a great deal more interesting to raise their plants from seeds every year than from layers.

H. A. P.

## THE ALLIUMS.

(Continued from page 217.)

**A**LLIUM CHAMEMOLY.—A miniature species with leaves only a few inches long, and few flowered umbels produced just above the level of the ground. The flowers are white, suffused on the outside of the perianth with green or purple. It is found in the neighbourhood of Tunis and in Sicily and Naples. *Botanical Magazine*, t. 1203.

*A. cyaneum*.—A pretty dwarf tufted species closely allied to *A. kansuense*, from which it differs in having the stamens exerted from the mouth of the perianth. The leaves are narrow and grasslike; the scapes are 6 inches to 12 inches high, and bear nodding umbels of blue flowers. It is very easily grown, and succeeds well in sandy loam. It is a plant for the rock garden. A native of the province of Kansu, in North-West China, and was introduced in 1890.

*A. Ellisii*.—A recent introduction, this is a very fine species, somewhat resembling *A. karataviense* in foliage, but having dense flowered globose umbels of larger individual flowers of a deeper colour. The leaves, 1 foot long by 2½ inches broad, are produced four to five to a bulb, with stout scapes 1 foot high and bright, rose-coloured flowers. A native of the province of Khorassan, in Persia. Plants of this species flowered in the garden of the Hon. Charles Ellis in July, 1900. *Botanical Magazine*, t. 7875.

*A. Erdelii*.—A rare species from Palestine, and closely allied to *A. orientale* in general appearance, but smaller in all parts, and with fewer flowers in each umbel. The flowers are white with a green keel. Being rather tender, it requires a warm position. Introduced in 1879.

*A. fistulosum*.—The Welsh Onion has been known in gardens since the days of Parkinson, but it is seldom used in this country. The

Russians call it the Rock Onion, and it is a favourite article of food with them, although the smell and taste are very powerful. An inhabitant of certain deserts of European and Asiatic Russia. *Botanical Magazine*, t. 1230.

*A. giganteum*.—Also known as *A. elatum*, and one of the most stately of the group of Central Asian species characterised by their height, broad leaves, and large heads of small, bright lilac flowers. Each bulb produces six to nine leaves  $1\frac{1}{2}$  feet long and 2 inches broad; the stems reach a height of 3 feet to 4 feet, and bear a dense globose umbel 4 inches in diameter. Introduced in 1883. *Botanical Magazine*, t. 6828.

*A. kansuense*.—An interesting little tufted plant, which may not be suitable for the general border, but is pretty enough, and well worth a place in the rock garden. It is about 6 inches to 9 inches high, and has narrow, grasslike leaves. It is remarkable for its dense, slightly-nodding heads of bright, steel blue flowers, which are borne on slender, wiry stems. While not so free as some of the other members of this genus, it will increase in light, sandy loam in an open position, and lasts in flower for a considerable time in summer. A native of Tibet and Western China, it was one of the last plants described by the late Dr. Regel, of St. Petersburg, who worked so much among the Alliums, and who sent bulbs of it to Kew, where it flowered in the summer of 1892. Also known as *A. cyaneum* var. *brachystemon*, and is figured in the *Botanical Magazine*, t. 7290.

*A. karataviense*.—A most distinct plant, remarkable for its handsome, broad leaves, of which there are usually two to each bulb. They are about 6 inches to 9 inches long and over 3 inches broad, dull green in colour, and have a glaucous tinge. The flower stems are stout, about 6 inches high, and carry a dense globose umbel of light purplish flowers 3 inches to 4 inches in diameter. It is a good plant for the border, where its bold foliage would attract attention, and most resembles *A. nigrum* of the older types of Allium, but is much dwarfer, with broader leaves, more prominently veined. Found on the Alatau range of mountains, in Central Asia, by Dr. Albert Regel in 1876, and sent by him to St. Petersburg, whence bulbs were sent to Kew, where it flowered in 1879. *Botanical Magazine*, t. 6451.

*A. macranthum*.—This is a fine, tall East Himalayan Allium belonging to that section of the genus in which the root-stock is scarcely at all bulbous. It was gathered by Mr. Elwes in an excursion to the Chumbi Valley, and first flowered with him at Cirencester in July, 1883. Most nearly allied to *A. narcissiflorum* of the European species, but is of more robust habit, with numerous linear leaves 1 foot or more long and thin in texture. It varies in height from 1 foot to 3 feet, according to the suitability of soil and position; the scapes are freely produced, bear lax umbels of bright mauve-purple flowers, sometimes as many as fifty in one head. When well grown it is certainly one of the finest species in the genus. *Botanical Magazine*, t. 6789.

*A. margaritaceum*.—Rather a dwarf plant, growing in tufts a foot or more high. The leaves are round and hollow, and the small white flowers are densely packed in a nearly globose umbel. It is a native of South Europe east of Italy, and is rather tender and requires a warm position.

*A. Moly*.—Amongst the numerous members of this genus there are very few with flowers of the colour possessed by the Yellow Garlic, or Moly. An old inhabitant of our gardens, it has been in cultivation since the beginning of the seventeenth century. Its bright yellow

flowers are very effective when seen in a large clump, as they form a mass of colour in the month of June. The leaves are few in number, broadly lanceolate, and 12 inches to 15 inches long. The scapes are 10 inches to 12 inches high, very freely produced in almost any situation, and the plant succeeds well on dry banks. It is also known as *A. flavum*. This species is spread over Central Europe from the Pyrenees to Hungary. *Botanical Magazine*, t. 499. W. IRVING.

## TREES AND SHRUBS.

### NUTTALLIA CERASIFORMIS.

**A**LTHOUGH this Californian plant is less showy than a large number of hardy rosaceous shrubs, it is of much interest, for not only does it flower freely and early, but it has ornamental fruit. Of the many shrubs which start early into growth this is one of the forerunners, for, if the weather is mild when the days commence to lengthen, the buds almost at once begin to burst, and the racemes are soon in evidence, the white flowers appearing in March. When mature it grows 6 feet or so high, and is very

by large branching panicles of small creamy-white blossoms, it holds its own as one of the most attractive of small trees or shrubs. Some specimens throw up suckers so freely as to form a mass composed of several stems of varying heights, while, if these are removed as soon as noticed, it will form a clear stem, which branches out when but a little height from the ground. The leaves and stems are more or less spiny, but in this respect there is a good deal of variation.

### LONICERA PILEATA.

This new Honeysuckle from Central China, which was introduced by Messrs. Veitch of Chelsea, and by whom dried specimens were exhibited before the Royal Horticultural Society, at the Drill Hall, about a year ago, is at present in flower at Kew. Among the hardy Loniceras it comes as a distinct break, being quite different in general appearance from any other in cultivation. It is very deceptive at first sight, and anyone might be excused for mistaking it for a small-growing Privet when not in flower. It is a dwarf shrub of spreading habit, the older parts of the plant being glabrous; the bark of the young wood, however, is hairy, and a few hairs are to be seen on the very young leaves. The foliage is evergreen and deep green. In form the leaves are lanceolate, with slightly recurved margins. The larger ones are 1 inch long, and rather more than a quarter of an inch wide. The



ARALIA SPINOSA AT KEW.

bushy, a large number of branches springing up from one root-stock. As the male and female organs are rarely perfect on the same plant, it is necessary to get specimens of both sexes before the pretty red, Cherry-like fruits can be had. In general appearance both male and female plants are very similar, but a variation is noticeable when the racemes appear. The bracts are quite different in shape, and it is possible to distinguish the two sexes by these alone. In the male inflorescences they are short and wide in comparison, narrowing quickly three-fourths of the way along to a small point at the apex, while in the female plant they are quite half as long again, and acuminate, tapering from the base to the apex. Its cultivation is quite simple, as it will grow in any ordinary garden soil, and can be increased by cuttings, layers, or division. W. D.

### ARALIA SPINOSA.

WITH the exception of one or two very near allies, even if they are not identical, this *Aralia* is quite distinct, in both foliage and flower, from any of our hardy shrubs, and it is additionally attractive when in flower in the autumn, as shown in the illustration. When in good soil in a fairly sheltered position the huge wide-spreading, compound leaves are quite of sub-tropical appearance, and when the principal shoots are crowned

flowers are borne very freely, in pairs, along the under side of the branches from the leaf axils. They are from a quarter to half an inch in length, cream, with a greenish tinge, and very fragrant. The Kew plants which are in flower were lifted from the open border and flowered indoors, but plants left outside look as if they will not blossom for another six or eight weeks. Dr. Henry says that in China he found it growing in rocky and damp situations, and rarely more than a foot in height, and from the elevation at which it is found he considers that it will be perfectly hardy in this country. As a subject for the rockery, or for a position where a dwarf evergreen is required, this should prove excellent.

Kew.

W. DALLIMORE.

### CUPRESSUS TORULOSA.

In the grounds at Hewell Grange there are two fine specimens of this tree, apparently about sixty years old. *C. torulosa* is a conifer that is rarely met with in British gardens. It makes a "tall fastigate tree, with short ascending branches, much rarified at the extremities; the branchlets are slender, short, twisted, and covered with imbricated glaucous leaves. In young trees the leaves are slightly spreading, but in older ones they are adpressed to the stem." "Veitch's Manual of Coniferae" says that this cannot be called a satis-

factory tree for garden purposes, for although sufficiently hardy to withstand an average English winter without injury, in exceptionally severe ones large specimens have succumbed." This makes the two trees above mentioned all the more interesting. They are not much sheltered, being planted at the top of a hill, and exposed to the west. A. P. H.

### SCIADOPITYS VERTICILLATA.

ONE rarely sees a good specimen of this handsome and distinct conifer in British gardens, and this is to be deplored, for if a position sheltered from cutting winds and a good soil are provided cold seems not to affect it. In warmer parts of the country it will, of course, make quicker growth, but that it is eminently suited to Midland gardens will be evident when I say that in the gardens at Hewell Grange, near Birmingham, there is a specimen 15 feet high. It is in a position well sheltered by surrounding trees, and is planted on a sloping bank in ordinarily good soil. No collection of conifers should be without the *Sciadopitys*, for it is both distinct and beautiful. Thinking that perhaps the scarcity of large specimens might be due to its comparatively recent introduction into this country, I referred to "Veitch's Manual of Coniferae," which gives the date of introduction as 1861, and says it was introduced through Mr. J. G. Veitch, although about the same time Robert Fortune sent plants to the late Mr. Standish of Ascot. The first living plant was received in England in 1853; in that year Mr. Thomas Lobb obtained one from the gardens of the Dutch Governor of Natal, which he forwarded to Messrs. Veitch's Exeter nursery. The plant arrived in very feeble health, and all attempts to restore it proved fruitless. Cones and seeds were sent home eight years later by Mr. J. P. Veitch, from which some of the finest specimens in England were raised. The height of this *Sciadopitys* in its native country (Japan) is given as 100 feet. In Britain, however, it has proved to be a slow grower, and it would be interesting to hear from any who know of finer specimens than the one at Hewell. Really good trees of this conifer are still sufficiently rare to render particulars of them worthy of record.

A. P. H.

## AN HOUR WITH THE HOLLYHOCK.

(Continued from page 229.)

**H**OLLYHOCKS flower naturally in August, but by a little management the bloom may be prolonged, and continued from July to November. Old plants that have bloomed the year before will bloom the second year in July and August. Cuttings taken and rooted, or seed sown out of doors the previous summer will bloom in August and September. Seed sown in pans, as soon ripe, and wintered under glass, will bloom in October of the following year. By using these three sorts of plants a succession of flowers may be kept up. If an early bloom only is required, old plants must be planted; if a late bloom, young plants and seedlings.

In planting for effect we would always recommend planting three or more of the same sort close together in a group, choosing the clearest and most distinct colours, and those which produce the densest and broadest spikes. When growing for exhibition the form of the flower is, of course, the primary point for consideration, and here it is usual to plant in lines 3 feet or 4 feet apart, that the culture of the plants may be more carefully and more conveniently attended to. There are some sorts which are alike suitable for exhibition and garden decoration, but both objects can scarcely be obtained conjointly. But as to culture, the Hollyhock is not particular in

regard to soil; it will grow and flourish almost anywhere. The finest spikes we have yet seen were grown on a strong moist loam that had been deeply trenched, richly manured, watered in dry weather, and well cultivated by frequent and deep hoeing.

Cuttings of Hollyhocks, single eyes taken in July and August, and placed round pots in a cold frame, will root in a month, and may be placed in single pots and stored in a cold frame through the winter, repotting into larger pots in February and April. Seed should be sown from the best formed, the smoothest, and the most double varieties only, and to ensure a fair crop of seed it is necessary to pull the flowers from their stalks so soon as the former begin to decay.

There are two seasons at which the seed may be sown; first, in July, in the open ground, the seedlings to be transplanted, or not according to the convenience of the cultivator; and, secondly, in October, in pans, to be potted into single pots in November, and kept under glass till planted out in April. If the seedlings sown in the open ground are to be transplanted before flowering, October is the best time, and next to that April.

In planting out, whether from the ground or pots, a showery day should be chosen, and after planting the stems should be surrounded with a little stable manure. If the weather or soil be dry, water copiously till the flowering declines. The Hollyhock, with its large surface of leaves and perspiratory powers, consumes a great quantity of water, especially at that period of its growth, in June and July, when the leaves so rapidly increase in size. So soon as the spikes rise from the crown of the plants stakes should be driven in at least 2 feet deep, and allowed to remain the same height above the ground, which is sufficient to hold any spike, and will not interfere with the flowers. One, two, or three spikes may be left to each plant, remembering, however, that the fewer the spikes the larger will be both spikes and flowers. Sometimes the flowers are so thick on the spike as to interfere with the expansion of the guard petals. In such cases thin out the flower-buds when about the size of a nut. Tie up with string bast from time to time as the spikes rise. Top the spikes at any given height; in sheltered situations they may be allowed to rise to 9 feet, but where much exposed to wind 7 feet should be the maximum. Shading is necessary if growing for exhibition, especially with the delicate-coloured varieties, which quickly soil if exposed to sun, wind, and rain. Fortunately this soiling is not sufficiently great to interfere with the effect of the spike in the garden, and as shading is troublesome and unsightly, it may well be dispensed with, except where growing for exhibition.

Some few years ago the Hollyhock suffered great depreciation from being attacked by a disease which baffled the best cultivators. Thousands of plants, both young unbloomed seedlings and named sorts, suddenly decayed, often just as the first flowers were expanding, when it was impossible to refill their places. This, we believe, was attributable to the unwholesome plan, too generally adopted, of forcing the plant, causing it to grow out of season, and in a close unnatural atmosphere, in order to obtain a more rapid and extensive increase by root-grafting. If we have rightly studied the vegetable kingdom, there are few plants will bear this strain put upon them without suffering a diminution of vital power, not always quickly recovered, but often conveyed downwards to the offspring, alike through cuttings and seeds. Certain it is

that by the continuance of this practice the disease gradually disappeared, as far as we know, and is now almost extinct.

W. PAUL, F.L.S.

## RIVIERA NOTES.

**M**Y best thanks are due to the raisers of those excellent early SWEET PEAS EARLIEST OF ALL AND MONT BLANC.—Hitherto, no matter when you might sow your Sweet Peas in autumn, they would

not condescend to flower until late in April. However strong they might be when winter came, nothing would induce them to flower in winter. Now, thanks to these new early varieties, you can sow Sweet Peas in the open the middle or end of October and have a bountiful supply of flower by the middle of March at the latest, a few blooms appearing the last days of February. This fragrant flower is therefore most welcome in the winter gardens on this coast, where till now but few residents ever saw their Sweet Peas in flower before it was time to leave.

JASMINUM PRIMULINUM is now finely in flower. It grew so wildly last autumn when the rains fell that I hardly thought it could set flower. It is larger and paler than *J. nudiflorum*, and the frequently double and semi-double flowers are set off to great advantage by the glossy foliage. It is too soon to decide on its real value, as it flowers here with the Forsythias and other spring shrubs; but if it proves an autumn bloomer it will indeed be a great acquisition.

BIGNONIA VENUSTA has been very bright all this winter on the wall of the house until the heavy and cold rains of February starved it, causing myriads of buds to fall off. *Bougainvillea spectabilis* was not affected in the same way, though really a more tender plant. Both are drought-loving plants, and of the two *Bignonia venusta* is the more sensitive to wet, while the *Bougainvillea* suffers most from an occasional frosty night.

GENISTA MONOSPERMA, the lovely, fragrant white Broom from Teneriffe, where it clothes many miles of the dry slopes of the volcano, is another drought-loving plant which is just now in the greatest beauty. The evil habit of French gardeners to plant Palms on artificial grass and water them all summer has banished this lovely shrub from most gardens. To English folk, however, who know and love their lawns in England these attempts at turf are regrettable, especially when so many beautiful things are thereby banished from the average garden. All Brooms are lovely, but this is when in perfection the loveliest of them all, and worth planting and waiting for, as it is a slow grower in its young state, and not flowering for some years after being sown.

Another very beautiful shrub this week is the

EVERGREEN GOOSEBERRY (*Ribes fuchsoides*) or *Grossularia folia*.—The contrast of its pendent crimson bells and glossy evergreen foliage with the airy sprays of the *Genista monosperma* is quite delightful, and there is a long succession of flower during the winter. It succeeds quite well in England against a wall, but is far more beautiful grown in the open, where it makes a big bush in strong soils. It is far too rarely seen here, just because it cannot be propagated quickly and takes two or three years before it is sufficiently large to be effective. Consequently it is only to be found in gardens where both master and man have a little patience. As a cool, or



rather cold, greenhouse shrub it should be splendid in England.

IRIS BUCCHARICA reminds me too much of *I. orchoides*; but it is a bigger and better thing. The white in it is not pure—at any rate, in this garden—and to all intents and purposes it is a yellow Iris of the *sindjarensis* or *assyriaca* type, flowering at each axil of the leafy stem.

TULIPA SAXATILIS at last seems to have found what it likes, and is flowering this year in the rich, red, ferruginous soil brought from the mountains.

TULIPA GREIGH, on the contrary, evidently dislikes this, and prefers the ordinary calcareous soil of the garden, where it likes more moisture than I expected at first. Like *Iris tingitana* it requires a long dry rest, but evidently likes plenty of moisture and even manure when growing in this climate.

ROSES.—That charming climbing Rose Anemone, the first hybrid between *R. sinica* and *H.P. General Jacqueminot*, is proving itself a very constant bloomer during the winter; indeed, I think that it and the strong climbing Rose Noella Nabonand, when autumn pruned, will prove the most perpetual and free winter climbers yet known. Dr. Rouges also deserves a place of honour among winter climbers, and the rich red young growths are almost as brilliant in winter as a flower could be. When one looks back for, say, ten years or so, the gain in climbing Roses that will give some winter bloom is very evident.

Nice. E. H. WOODALL.

## THE AURICULA.

WORK IN APRIL.

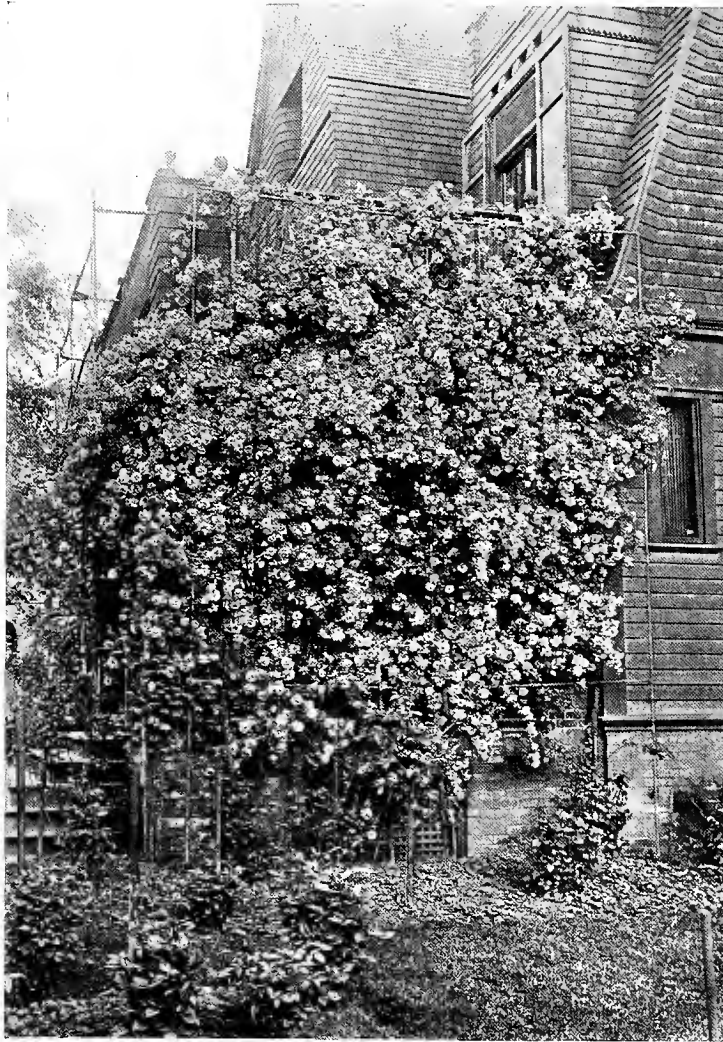
THE wealth of bloom which may now be expected is the reward of the patient Auricula grower, and now comes the test whether the previous eleven months' constant and unremitting attention have been sound or faulty. With the pleasure of admiring the favourite and well-established sorts of other growers is combined the great charm of criticising seedlings of his own on which no eyes but his own have feasted, and which may in due time take rank with the choicest varieties of his day.

Every possible attention must be given to the plants to assist in the formation of a perfect truss of bloom. Water may be more freely given as the season advances, and, although early morning sun will be advantageous, care must be taken that its scorching rays are not admitted to the frames or Auricula house, which will injure the delicate texture of the blooms. As the trusses of the rising bloom begin to expand and swell the pips must be gradually and judiciously thinned out with a pair of sharp-pointed scissors or tweezers, as few plants will carry to perfection all the buds they make.

Eleven to nine pips a truss may be considered very good, seven good, five small.

Selfs, as a rule, carry more than either green, grey, or white edges. The truss should be level and uniform; each pip should be independently displayed. To assist this small bits of soft moss or lint can be tucked between the footstalks, so as to place the pips a sufficient distance apart to open freely without touching.

Slightly fumigate to keep the aphid or green fly in check. Crosses for obtaining seed must now be decided upon and the plants intended for this purpose fertilised. Young plants should be selected, as there is more certainty of obtaining seed. Prick off seedlings of the previous year as soon as they can be handled, and give any that have been already potted a shift to keep them growing. All Auricula



FORTUNE'S YELLOW ROSE ON THE HOUSE OF MR. FREDERICK HOLMAN, PORTLAND, OREGON.

(This Rose flowers in warm corners in our southern counties. A plant in a sunny nook in a Berkshire garden is quite a success.)

members of the three sections of the National Auricula Society will now be looking forward to the coming shows held this month in London, Birmingham, and Manchester, and hearty greetings and good fellowship will be exchanged at these annual gatherings, where some of the most ardent and enthusiastic florists of the day meet in friendly rivalry.

W. SMITH.

[We hope the Auricula shows about to take place will be well supported.—Ed.]

## THE ROSE GARDEN.

### A NEW RED ROSE.

ETOILE DE FRANCE.

A FRIEND (a large grower and raiser of Roses) who saw this Rose growing last year in the nurseries of the raisers, wrote me at the time that I was to look out for it, as it was, he thought, to be "something good, and distinctly above the average of the Continental new Roses; a real crimson bedder." I have yet to see the Rose, but I have just received a notification from the raisers, Messrs. Pernet-Ducher of Lyons, that it will be distributed this autumn. It is a Hybrid Tea, the seed parent, that excellent decorative garden Rose *Mme. Abel Chatenay*, fertilised with the old Hybrid Perpetual *Fisher Holmes*; and the raisers describe it as having all the vigour, constitution, and free-blooming qualities of the former, coupled with the brilliant colour of the latter.

If this be so, we have in *Etoile de France* an excellent Rose that we shall all want to grow. Let us hope it will fulfil all the requirements of a good crimson bedder. I look forward, I must admit, with rather more than my usual amount of sanguineness when I remember what a series of "great Roses" we have had from this well-known firm in the past. To mention only a few, there is *Caroline Testout*, now that we have a climbing sport, possibly the finest all round Rose of the present day; *Souvenir de President Carnot*, a lovely Rose that is not half enough grown; *Mme. Abel Chatenay*, unique in colour and shape, and one of the freest blooming of the Hybrid Teas; then *Mme. Ravary* and *Prince de Bulgarie*, newer introductions, but both excellent, &c.

No doubt we shall see some flowers of *Etoile de France* during the coming season. Possibly some of our up-to-date Rose growers have made arrangements to have some on exhibition at the Temple show of the National Rose Society. Be that as it may, I think all interested in new Roses should make a note of it.

HERBERT E. MOLYNEUX.

Brantwood, Balham, S.W.

### FORTUNE'S YELLOW AND ALFRED CARRIERE ROSES.

I AM an amateur rosarian, and do most of the work on my 500 Rose bushes. The climate and soil of Western Oregon, in which Portland is situated, are, I believe, of the best in the world for growing all varieties of Roses, and especially the Hybrid Teas and Hybrid Perpetuals. I have been endeavouring for some time to make Portland distinctively a Rose city, and I have accomplished a good deal in that direction. In growing Roses in my own garden I combine exhibition Roses with garden decoration. Climbing Roses grow exceedingly well here. I enclose a photograph of a *Fortune's Yellow*, and also



ROSE MME. ALFRED CARRIÈRE AT PORTLAND, OREGON.  
(This Rose is quite happy in English gardens.)

two bushes of Mme. Alfred Carrière which grow on my house in Portland. They were taken in May or June, 1903. You will see that these Roses grow well here. The Mme. Alfred Carrière on the side of the house is between 30 feet and 35 feet high, and the one on the end of the house is nearly 30 feet high.

Portland, Oregon. FREDERICK V. HOLMAN.

### ROSES ON WALLS.

How to have Roses in bloom for as long a portion of the year as possible, and in all sorts of positions, is a matter worth consideration. There are two classes of Rose growers, besides those who grow for sale; the one has for his principal object the production of blooms for exhibition, while the other grows them for decoration and the production of flowers for cutting. Now there are so many families of the Rose, and so many varieties belonging to each family, that suitable Roses may be found for almost all kinds of uses and positions.

The following are some of the uses of and positions in which Rose plants may be put in a garden, viz., beds, borders, shrubberies, poles and pillars, arches, arbours, walls (north, south, east, or west), hedges, screens, &c. Before entering into any particulars, however, as to the different kinds of Roses adapted to the various purposes just mentioned, I should like to make a few remarks on the more or less important subject of soil. I say "more or less" here, because if only the commoner kinds of Roses be grown, the kind of soil is a matter of small importance. The old summer-blooming climbing Roses belonging to the Boursault, Ayrshire, and sempervirens classes, as well as most of the varieties belonging to the Gallica, Hybrid China, Hybrid Bourbon, Austrian Briar, and many other summer-blooming families are not at all particular in the matter of soil. Where the best kinds of continuous-blooming Roses are required to thrive and repay the cultivator, there the soil must either be naturally good or adapted to the purpose by artificial means. For poles, pillars, arches, arbours, walls, sides of houses, and high buildings, &c., only those Roses are suitable which have more or less of what is called a climbing habit of growth.

Roses which make long rambling growths, whose shoots are unable to stand up without support, are the sorts which do duty as climbers. Before, however, determining on the kind of climber to plant, the height the plants are required to attain to must be considered. Most of the vigorous Hybrid Perpetuals and Teas will reach a height of from 8 feet to 15 feet if the soil be good, and on warm sheltered walls 4 feet or 5 feet or more.

The extra strong growers of the same classes, with the Noisettes and Hybrid Noisettes, will cover well up to 15 feet or 20 feet or more. The Banksian Roses are excellent as climbers, but should only be planted against walls in rather sheltered positions; they are only summer bloomers. The old blush and crimson China Roses will also run up a wall freely to a height of 30 feet, and, as before stated, for continuous blooming qualities they are unsurpassed by the varieties of any other family of Roses.

The old-fashioned summer-blooming Roses before alluded to are capable of almost anything in the way of height. They completely cover themselves with flowers during the blooming period if rightly treated, and all the treatment they require, if in good soil, consists in tying them to their supports, pruning out weak and exhausted wood, and encouraging to the utmost such vigorous young shoots as may be required. No growths need be shortened except to keep them within the bounds allotted to the plant, and to take off unripened ends.

Climbing Roses may be used to screen unsightly buildings and other objects by training them to galvanised wire or other fences or supports, and, except when the leaves are off, they answer this purpose admirably. All the above methods of growing Roses not only produce beautiful effects, but give supplies of flowers for cutting. T. W.

## AN ARTIST'S NOTE-BOOK.

## ARUM PALÆSTINUM.

**A**RUMS are widely distributed, and most species are, generally speaking, more remarkable for the curious character of the flowers than for their beauty. Still, some of them are very handsome. Among these is our native species, *Arum maculatum*, the Cuckoo-pint, or Lords and Ladies, as it is popularly named, which produces its whitish flowers in spring or early summer. These are in turn succeeded by scarlet berries, which, crowded into a dense spike, furnish many a bright bit of colour in the leafless hedgerows during late autumn and winter. The Palestine *Arum*, a larger grower than the English representative of the genus, is a striking plant, and though not hardy unless under very favourable conditions, it deserves a glass structure. The manner of growth is against its successful culture out of doors, as it begins to push up its leaves from a large flattened tuber about the end of the summer, grows slowly during autumn and winter, and flowers, as a rule, in the spring. In July and August firm, well-ripened tubers with a prominent central crown can be obtained from most bulb dealers, who, I believe, draw the greater part of their supplies from Italy, where the climate is favourable for full development of this plant. These tubers can be depended upon to flower well with little trouble, all that is needed being to pot them in to 5-inch or 6-inch pots, in a mixture of loam, leaf-mould, and sand, and place them in an ordinary greenhouse. Little water should be given till they start, but in the case of well ripened tubers this will not take many days. When the roots are very active plenty of moisture is essential, but good drainage is necessary. The large leaves are dark green, while the flower scape, which reaches much the same height as, or a little less than, the tallest leaves, is terminated by a striking flower, the spathe of which is about 8 inches or 9 inches long, and more than half that in width. In colour the outside of the spathe is green, while the inside is velvety blackish purple. The erect spadix is almost black. After a few hours' expansion the flowers lose the disagreeable odour that they have at first. A group of half a dozen plants or so forms a striking feature in the greenhouse, but it is scarcely likely to appeal to those (and they are many) who regard every plant according to its value for cutting from. After the flowers are over the plants should be watered as before till the leaves turn yellow, when moisture must be entirely withheld. During the resting

period the best place for them is on a sunny shelf in the greenhouse, as a thorough baking in the sun's rays tends to the production of flowers, though even then they are not likely to equal the results from imported tubers. Though very uncommon, this *Arum* has been known here for about forty years, either under the above specific name or that of *sanctum*, which is still frequently used. Popularly it is often termed the Black Calla. A closely allied species, native of the same region, is *Arum Magdalenæ*, described as having a yellow spathe, marbled and spotted with purple. It was figured and described in an Italian publication ten years ago, but I am not aware of its being

now in cultivation. At all events, it does not figure in the latest "Kew Hand List of Herbaceous Plants." H. P.

## ROUND ABOUT A GARDEN.

## THE WINDS OF MARCH.

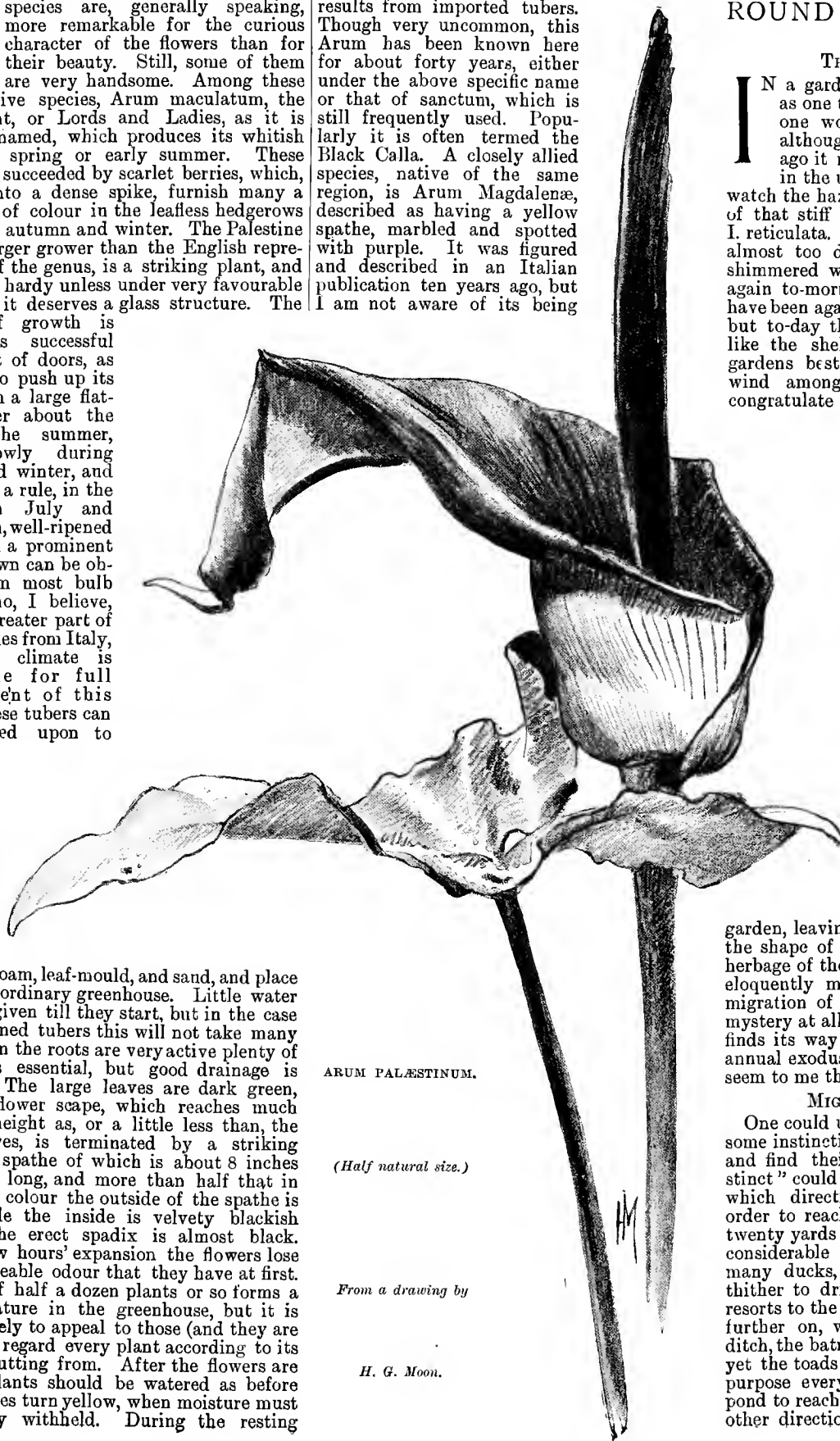
**I**N a garden one has to take March winds as one takes medicine—something which one would much rather go without, although it "does good." A fortnight ago it may have been delicious to bask in the unwonted warmth of the sun and watch the haze of hive-bees over the deep blue of that stiff but sweet and lovely little *Iris I. reticulata*. Then the yellow Crocuses were almost too dazzling to look at, and the air shimmered with small insects. So it may be again to-morrow—so it will almost certainly have been again before these lines are printed—but to-day the eager, nipping air makes one like the sheltered corners round about our gardens best. There one can listen to the wind among the Pines and philosophically congratulate things in general upon the good that the driving, drying winds are doing to them.

## THE TOADS COME FORTH.

The toad is another thing which does a lot of good in a garden without being a welcome object in itself, and on the 21st ult. our toads all came out and began to crawl slowly about in the early dusk of evening. But the minds of the toads were not then set upon philanthropic labour, to clear the garden of "noxious insects." The consuming fire of love—strange as the words may seem in connexion with toads—was goading them to find their way to the ditch where they were hatched as tadpoles into this contemptuous world, there to meet their pimply sweethearts, and after a time to return toilsomely to the garden, leaving the next generation of toads, in the shape of strings of jelly-eggs, among the herbage of the ditch. Wise men in plenty have eloquently marvelled at the mystery of the migration of birds; but, if there were any mystery at all in the way by which a swallow finds its way to Africa and back again, this annual exodus and return of the toads would seem to me the more surprising.

## MIGRATION TO THE DITCH.

One could understand that they should have some instinctive scent of water at a distance and find their way thither; but what "instinct" could it be which tells them exactly in which direction to crawl, inch by inch, in order to reach their ancestral ditch? Within twenty yards of one of our garden gates lies a considerable pond, populated by swans and many ducks, and horses and cattle throng thither to drink. But neither frog nor toad resorts to the pond to spawn, though 150 yards further on, where there is a little half-dry ditch, the batrachians swarm at breeding-time; yet the toads which leave our garden for this purpose every spring must pass close by the pond to reach the ditch, and wandering in any other direction they would be hopelessly lost



ARUM PALÆSTINUM.

(Half natural size.)

From a drawing by

H. G. Moon.

long before they could reach water of any kind. How and why do they go to the ditch?

NOT BY LANDMARKS.

For the location of a garden seems to make little difference in its supply of toads. Provided that no absolutely insuperable obstacles intervene, every garden will have its toads, and every spring will see them setting out to find their ancestral ditch. That they could travel by remembered landmarks seems scarcely possible, because the range of vision of a squat toad, travelling with belly on the ground, must ordinarily be limited to a very few inches. The toad, indeed, can usually reach his horizon with his tongue. Besides, such landmarks as would impress themselves upon his eye would surely be such things as the Dock leaf under whose shade he rested for the whole of one hot day, the hoof-print into which he fell and extricated himself with much difficulty and many tumbles on his back, or the red pebble off which he dabbled an incautious fly with his projectile tongue. The Dock leaf withered in autumn and is gone, the pebble was thrown into the pond by the cowboy, and as for the hoof-print, the whole place is a bewildering maze of new hoof-prints leading in every direction from the pond.

THE SWALLOW'S PARALLEL.

When we speculate upon the means by which wild creatures migrate to their breeding haunts we are apt to forget that with the changing seasons the country must present to them an entirely new aspect, which they have never seen before and in the majority of cases will never see again. It is certain that the average length of life of a wild swallow must be less than a year; and from the multiplicity of young which toads annually produce without becoming more numerous, it is manifest that they are very short-lived too; yet, whether it is a swallow journeying from Africa to its home in England for the first time, or a toad even more laboriously migrating from a garden to a ditch a quarter of a mile away, inexperience leads to no errors. Against contrary winds even the strong-winged swallow may beat in vain to sight the land, and the toad may tumble into any hole and spend the rest of his life there; but, barring accidents, spring will always find the swallow twittering round the barn where he was born, and the toad croaking lugubriously in the ditch where he once was a slimy egg.

A SIMPLE EXPLANATION.

In both cases the explanation is probably simple. The swallow merely follows the guidance of the warm wind, and the toad follows the trend of the ground. Both obey their instinct to travel at the right time, and both keep to the line of least resistance, simply reversing their previous movement. Last year the swallow flew whenever the cold north wind blew until he reached the sunny south; last year the toad climbed out of the ditch and went on travelling uphill by easy stages till he reached a place where he found a comfortable home. Now the swallow flies back with the warm wind, and the toad wanders downhill, like the rainwater, finding its way, like the rainwater, to the ditch at last. It is no doubt the moisture in the ground which guides the toad to water, as it is the temperature of the air which guides the swallow. But why, it may be asked, do our toads always pass by the pond and find their way to the comparatively distant ditch? Simply because the pond happens to have been artificially constructed, with raised banks, and is fed by springs from beneath. When a pond forms the

natural drainage centre of the surrounding country it is thronged with frogs and toads at breeding time; but in this case the ditch, and not the pond, drains the neighbourhood, and the toads find their way thither in the same way as the water does, by following the line of least resistance. They make mistakes by the way, of course, and meet frequent disappointments at the start in depressions of ground where no water stands; but they achieve their purpose in the end, and I think it lends some dignity to the otherwise ungainly aspect of the travelling toad in March if we can regard him as a unit of a vast multitude marching with certainty to a definite end in obedience to a natural law which is as simple as it is effective.

E. K. R.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE ROYAL HORTICULTURAL SOCIETY AND ITS GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your excellent leader (page 159) you conclude with these words: "The society is in strong hands; its watchword is the safe one—Horticulture," and with these words I thoroughly agree, and would add: Let it be Horticulture of the best kind. In common with many more Fellows, the society at its new gardens should, we think, leave trading alone; it has never paid, and it is not at all conducive to the interests of the society to see them retail their wares. I think the plant distribution to the Fellows should be given up; it is of little value, and gives the officials much work. Many of the Fellows who do not know much about horticulture expect a lot more than they get, and surely they get enough in the way of admission to shows and the Journal without these small doles which can be got elsewhere. I am aware that in the matter of new plants or seeds the society may wish to send out it would appear a dog in the manger policy not to distribute them, but it could easily be done by selling the stock to a leading nurseryman, and the proceeds could be given to the library or other good work connected with the society. With these things abolished there will be more time to make the new garden at Wisley an educational one. There is a wide opening for this, though we have no wish to have a second Kew. There is also a great opening for improved vegetable culture, trials of new fruits, florist's flowers, horticultural appliances, and other things that cannot always be satisfactorily carried out in private places.

A FELLOW.

### THE GARDEN TULIP, AND PRICES PAID FOR DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 19th ult. there is an article on "The Garden Tulip." It is always interesting to read about this flower. It brings back a flavour of the distant past, of the old churches with their rectory, village inn, and stocks, and, however familiar the Tulip may be, one is never tired of hearing about it again. I cannot quite agree with Mr. Douglas when he says that none of the old varieties would stand the test of competition against any of the present day. The water-colour drawings, as well as process prints, prove one of two things—either that our forefathers grew their flowers much better, or that the sorts were finer than anything of to-day. I have grown Tulips for many years, and my father, grandfather, and great-grandfather before me, and I am of the opinion that I know the points of a Tulip, and I feel sure that they, like the Auricula and the Polyanthus, were grown better than they are now. Of course, I am aware that many of the finest

Polyanthes are extinct, but of those we have perhaps the finest that survives is George IV. Is it ever seen so fine as represented in the old prints? I am now looking at a painting of an extinct Polyanthus—Kingfisher, with eight perfect pips, besides flowers in shadow. I have never seen so perfect a flower, yet I am pretty sure the painting is not exaggerated. Another grand old sort is now quite lost, viz., Pearson's Alexander. The last plants I knew of belonged to the Rev. — Whitehouse of Amblecote, a rare old-fashioned florist, who lost it during one winter's illness. The Auricula, too, seemed to have been better grown fifty to sixty years ago—that is if you can rely upon the drawings in existence—but the Auricula, like the Potato, wears out in time. When John Simonite first came out I thought it was the finest white edge I ever saw; now it has gone clean out. I cannot agree with Mr. Douglas in saying, when referring to the high prices paid for Tulips, that the Daffodil has had its turn. The high prices paid at the Birmingham show for the fine white trumpets last April, and the increasing demand for the choicest sorts, proves that whatever the future of the Daffodil may be there is at present an increasing demand for the highest priced ones, and holders of fine varieties ask higher prices than formerly. The first raiser of a scarlet trumpet of 1 inch long only would get twice as much as ever has been paid for any previous Daffodil. I know enthusiasts in Daffodils all over the world, and nearly all of them raising seedlings. In a Christmas number of a Christchurch illustrated paper appeared sketches of seedling Daffodils raised there. Daffodils do not require the same attention as Tulips. When once well planted they take care of themselves for two or three years if necessary. They last in bloom four months, increase rapidly, and are very useful for house decoration. The florist's Tulip wants great care in planting, shading from the sun, and lasts in bloom one month. It has to be dug up every year, increases slowly, and is of no use for house decoration, and can only be appreciated by an enthusiast who has a trained eye.

King's Norton.

JOHN POPE.

### RUBUS ROSÆFOLIUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The notes on *Rubus rosæfolius* (Sm.) in your issues of November 14 and 21 are of interest here, for although the "Index Kewensis" gives its habitat as Tropical Asia, it is a very common plant in Eastern Australia also. With us it is abundant on the banks of creeks (brooks), or on the skirts of "brushes," i.e., rich land, well watered, in contradistinction to the poorer open or forest country. With us it is a dense, erect, prickly shrub of 3 feet or 4 feet. "Neat" would be the proper adjective for it, as the white flowers are not showy and the fruit is small and often dingy. Mr. Alderson says the fruits are "greatly wanting in distinctive flavour," which is a temperate way of putting it. They are full of seeds, and rarely eaten except by aborigines and children. But perhaps the Asiatic form yields a better fruit, and perhaps it has been improved by cultivation.

Botanic Gardens, Sydney.

J. H. MAIDEN.

### SPARROWS DESTROYING CROCUS FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As no one appears to have challenged "E. K. R.'s" statement in your issue of the 5th ult. regarding the innocency of sparrows among Crocuses, I venture to do so. In the article "A Human Prejudice," it is suggested the "youthful" sparrow comes to make experiments with flowers, or to amuse himself by investigating their properties scientifically. Alas! these investigations begin and end with eating my Crocuses, and sparrows' interesting habits must be alike in every garden. It is not in the nature of the voracious, busy, unæsthetic sparrow to waste time in mere amusements, and my small garden (overlooked by every window in the house), with hundreds of decapitated Crocuses in all directions, is strong and melancholy testimony to his depre

datations. Old and young, they settle down in threes and fours in the beds of spring flowers, with a business-like intent and purpose too marked to be mistaken. One by one they pull up (or, rather, cut) the petals, eat the succulent bit at the end of the flower, drop it, and pass on to another in regular and systematic order, and with the dire results I have mentioned. I enclose some specimens of my Crocuses after they have been discussed by these enquiring sparrows, also some my own hand has pulled out. The effect of their greedy taste for Crocuses is very marked, the succulent stem of those I have "played" with being very apparent—not so in the others. M. R. R.

## ORCHIDS.

### DENDROBIUMS AT WOODHATCH LODGE.

**D**IFFICULT indeed it would be to find a finer display of Dendrobiums than is now to be seen in the gardens at Woodhatch Lodge, Reigate, the residence of Mrs. Haywood. The illustration shows part of one house filled with these Orchids in flower, but there are two others which contain an equally good collection of plants. Mr. Salter is not only a very successful cultivator of Orchids, but he has also raised many hybrids, particularly among the Dendrobiums. Several of these have been honoured by the Royal Horticultural Society with certificates or awards of merit. Not only are the Woodhatch Dendrobiums well grown and finely flowered, but there are no poor forms among them, and many are hybrids of recognised value raised by Mr. Salter. To see how remarkably well flowered these plants are one has but to refer to the illustration, but it may be worth while mentioning that a plant of *D. Hildebrandtii* × *wardianum* had no less than seventy-seven flowers on one pseudo-bulb of last year's growth. Among the finest Dendrobiums in the collection are such as *D. nobilium*, *D. n. ballianum*, with pale lip, a delicately beautiful flower; *D. Salteri*, which received an award of merit last year, and is the result of a cross between *D. splendidissimum* and *D. findlay-anum*; *D. splendidissimum* Mrs. Haywood, a large, handsome variety; and *D. melanodiscus* Sunray, given an award of merit last year.

*D. splendidissimum* and *D. findlay-anum* have played a large part in the hybrids obtained by Mr. Salter; he has made frequent use of *D. findlay-anum* particularly. Nothing is more remarkable in the results of Orchid hybridisation than the great disparity noticeable among seedlings, even those obtained from seeds out of one seed-pod. But this, of course, makes it all the more interesting, one never knows what to expect even from parent flowers that may have shown little or no variation.

In another house, a small lean-to facing north, Phalenopsis were in rude health and apparently quite at home. The plants have enormous leaves, and *P. stuartiana* and others were just coming into flower. *Masdevallias*, too, although few of them were in bloom, were the picture of good health, as infallibly indicated by their rich green foliage. *M. tovarensis*, its white flowers conspicuously noticeable, was also thriving wonderfully well.

T.

### ORCHIDS AT THE GRANGE, OLD SOUTHGATE.

ORCHIDS are usually associated with country residences miles away from London, but London horticulturists may be proud of the fact that within a twelve mile radius are to be found some of the choicest collections of Orchids in the south of England. On the east side, situate at Woodford, is the collection formed by J. Gurney Fowler, Esq.; in the south-west, at East Sheen, the well-known Clare Lawn collection of Sir Frederick Wigan, Bart.; at Streatham the Woodland's collection owned by R. H. Measures, Esq., while Southgate to the north has two, that

of C. H. Feiling, Esq., and the subject of the present notes, the collection owned by J. Bradshaw, Esq. Perhaps selection would be the better term than collection, for Mr. Bradshaw's aim has been not so much to form a comprehensive collection as to have the best forms of certain genera and species.

In Cattleyas, The Grange is particularly rich, poor and mediocre forms being rigorously weeded out. *Cattleya Mantinii* and its variety *nobilior* (hybrids between *Cattleya aurea* and *bowringiana*) are represented by over twenty wellgrown examples, which make a blaze of colour in autumn. *C. intermedia alba*, *C. labiata* varieties, &c., are equally as well represented, but the present notes are written more especially to record as far as possible the *Cattleya Trianae*, of which a number of exceptional forms were in bloom on the occasion of a visit paid during the first week in March. *Trianae* is prominent among winter-flowering Cattleyas, but few, if any, collection can present such a charming series of forms as those under mention. The following varieties were, perhaps, the better and most worthy of notice:—

*Rosa*.—A remarkable form, reminding one strongly of a superb form of *Cattleya Schröderæ*. The colour of the flowers, too, is not unlike that of *Schröderæ*, but far richer than any form of that species seen by the writer. The colour on the sepals and petals is of a deep, warm shade of rose-lilac, but little darker on the lip, where, however, it is intensified by contrast with the deep orange-yellow of the throat.

*Exquisite* is almost, if not quite, an ideal flower, the sepals and petals are of great breadth and substance, soft rose-lilac, both segments being broken at the apices by flames of purple, the petals more so than the sepals. The full, rounded lip is of bright crimson-purple, the throat pencilled with ochre-yellow on a lighter ground.

*Rajah* is similar but even finer than *Exquisite*, excelling that form in size and colour; in fact, when exhibited at Manchester it was pronounced by experts to be the finest seen.

*Circé*.—A bold, handsome variety, with large shapely flowers of a colour best described as white, entirely overlaid with a light heliotrope blush; the petals with darker pencillings towards the edges, the lip soft rose-lilac, the margin daintily denticulated, and the throat deep glossy ochre.

*Alba* is represented by several good forms, but even more beautiful because less often met with are a number of forms with white sepals and petals, and more or less coloured labellums. The first of these,

*Enfieldense*, is very beautiful. The sepals and broad petals are snow white, in contrast to which the finely frilled labellum has the apical half entirely suffused with light carmine-pink, abruptly finishing where it meets the light orange-yellow of the throat.

*Fairy Queen* is a flower of perfect shape, the colouring very similar to that seen in *Enfieldense*; the sepals and petals are white, but the lip has the advantage of a daintily gophered white frill encircling the carmine on the edges.

*Maroureen* is an exquisite form. The flowers are shapely and well balanced, and the sepals and petals quite white. The lip is large, finely frilled, of a soft, flesh pink tint, the colour extending wedge-like into the throat, where it is bordered on either side with lemon-yellow. Both shape and colouring render this form exceedingly attractive.

*Lowie*.—Another grand form would be *alba* but for the suspicion of a flush on the finely frilled lip and a receded light lilac suffusion on the external surfaces of the side lobes. With *Lowie* may be classed

*Rana*, another most beautiful albino, with finely shaped sepals and petals, and a broad, round, spreading lip, with the softest of rose flushes on the central area and the external surfaces of the side lobes.

The foregoing *Trianae* with others were all staged at one end of the Cattleya house, the central position among them being accorded to the plant of *Brasso-Laelia*, *purpurato-digbyana* var. *The Mikado*, which visitors to the Royal Horticultural Society's exhibition of the 23rd ult. will undoubtedly remember as a remarkably fine form, the sepals and petals being more in proportion with the wonderful fringed labellum than is usually the case, while the purple rays of the lip are darker and brighter in colour. In addition this variety is very sweet, resembling that of the lemon-scented *Verbena*.

The Orchids at The Grange and the skill and excellence with which they are grown show the keen interest taken in them by Mr. Bradshaw,



DENDROBIUMS IN THE GARDEN OF MRS. HAYWOOD, WOODHATCH LODGE, REIGATE.

while Mr. Whitelegge, the head gardener, is quite as enthusiastic.

In a cool house of mixed Orchids, containing specimens of *Cymbidium Lowio-eburneum*, *hookerianum* (*grandiflorum*), *lowianum* and its variety *concolor*, and *winnianum* (a huge plant), many different *Oncidiums* were noticed, *O. marshallianum* with vigorous bulbs, well capable of supporting the huge spikes, at present only in bud, but far enough advanced to indicate the glorious display to come. A batch of *O. concolor* promises well. *Forbesii* grows equally well, and two plants of the unique golden-yellow variety *Bradshawiae* were pointed out. Though

#### CYPRIPEDIUMS

are not a strong feature in this collection, room has been found for a few good *C. insignes*, including the variety *Sanderæ*. Quite a feature, too, was a bank of *Lycaste Skinneri*, each a selected form, their massive wax-like flowers showing to full advantage against the background of their own grass-green leaves. All were really worthy of a varietal name, but only the very best had been so distinguished, among them being *Enchantress*, with huge flowers, soft white, flushed and marbled with rose; *Armenica*, white of sepal and petal, with a clear apricot yellow lip; *Darkness*—most aptly named—the petals are entirely of a deep amethyst purple shade, the lip is edged with deep maroon, while the sepals, though having a creamy white ground, are heavily flushed with deep rose-lilac; *Fairy* is the reverse in effect, it has tall spikes, very large sepals, stone white, suffused with light pink, petals flushed with pale ruby, dappled with a darker tint, lip creamy white, sparsely spotted with amethyst; *Alice*, a squarely-built flower, lip creamy white, with bright rose-purple spots, the base black-purple; *L. S. alba* is represented by several plants, but this, with *Lady Gladys*, one of the finest known *Skinneri* forms, were, unfortunately, not in flower, nor was *Balliæ*, the beautiful hybrid between *Skinneri* and *plena measuresiana*.

#### ODONTOGLOSSUMS

at The Graage are well grown. The house containing them is of considerable dimensions. Few were in bloom at the time of my visit, but numerous spikes are showing, while to a cultivator's eye nothing could be more pleasing than the healthy, vigorous appearance of the plants, the thick substantial foliage, glossy green, just tinged with brown-purple, proof of perfect root action.

A number of special varieties of *crispum*, hybrids, &c., are included, and, luckily, a most distinct and handsome form of *crispum*, to which the varietal name of *coruscans* has been applied, happened to be in flower. The plant, a comparatively small one, is flowering for the first time, hence it may reasonably be expected to surpass its present efforts when flowering again. Even now the flowers are above the average size, of good shape and outline, the petals well crisped, finely toothed, and with high shoulders; the broad sepals are white, flushed with rose, markedly so on their backs, the colour showing through on to the front surfaces, which are thickly blotched with bright terra-cotta red. The petals are equally beautiful in colour, but the blotches are not so numerous and more central. The lip is very large and full, much broader than usual, finely fringed white with a clear yellow crest, the yellow extending into the surrounding parts. There are a few red spots on the sides, and a deeper coloured large blotch midway between the apex and the crest.

As showing the progress made by skilfully cultivated plants, it may be said that the *Odontoglossum Bradshawæ* (*O. harryanum* × *O. andersonianum*), which received a first-class certificate last year, now consists of three good plants, all growing well. Near them are several plants of *Odontoglossum harryano-crispum*, one fine form with ten flowers on the spike being very prominent by reason of the size and brilliancy of the blossoms; the broad lip is very noticeable from its exquisite markings of wine-purple and white, and the bright golden, ragged crest, derived from the *harryanum* parent.

A very good form of *Odontoglossum andersonianum* also calls for notice; the flowers large

with, for *andersonianum*, very broad segments, the ground colour milk-white, evenly marked, in strong contrast, with bold bright red spots.

The *Odontoglossum excellens*, of which several grand forms are represented here, together with the best forms of *crispum*, *wilckeanum*, &c., are all well worthy of mention.

ARGUTUS.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### CHRISTMAS ROSES.

AS the varieties of *Helleborus niger* pass out of flower the frames or hand-lights should be removed. If the ground has been trampled upon in gathering the flowers the surface should be lightly forked over before applying a good mulch of decayed manure. The Christmas Roses grow and flower best when left undisturbed, but if the bed has got into an unsatisfactory condition it will be best to lift the clumps carefully and replant. If possible, a fresh site should be given. In any case, before planting the ground should be deeply dug and well dressed. Plant moderately firm and mulch with some non-manurial material. *Helleborus colchicus*, *olympicus*, and *orientalis* should either have lights placed over them or be mulched with Coconut fibre to prevent the rain splashing the soil on the flowers. When flowering is over these should be treated as advised for *Helleborus niger*.

#### GENERAL REMARKS.

During suitable weather ply the Dutch hoe on all borders; an hour when they are fairly free of weeds will do better work than a day if hoeing is left until the borders are infested with weeds. Sweet Peas raised under glass should be planted out, choosing, if possible, a mild, dull day, taking care not to break the roots. After planting place a few branches of Silver Fir along the rows as a temporary screen. As the spring-sown seeds germinate draw the soil lightly among the young plants and give short sticks. Autumn-sown plants are now growing fast and require longer sticks, which should not be too thickly disposed. Bedding *Calceolarias* and *Gazania splendens* should be transplanted to cool frames, using a soil suitable for the production of fibrous roots. If the *Calceolarias* are to flower in a light soil, the final planting should be done early to get the plants established before the hot, dry weather sets in. Many bedding plants may now be moved into cold pits and frames, keeping the plants on the dry side for a few days. The main stock of *Cannas* and *Dahlias* should be started into growth. As soon as they are large enough to handle all seedlings should be pricked off, giving the young plants sufficient room for development.

#### VIOLAS

should now be placed in their flowering quarters, which, for preference, should be partially shaded. Given such a position and a well-worked rich soil, sufficiently open to allow the free passage of water, the culture of these plants is a comparatively easy matter, and a good display for a considerable portion of the year can be ensured.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

### FRUIT GARDEN.

#### STRAWBERRIES.

AFTER the fruits are picked from the earliest plants they should be removed to a pit or any place of shelter. If they receive proper attention and are planted out as soon as hardened off good fruits can be obtained in September if the weather is favourable. Later plants in the houses will require attention almost daily in thinning, leaving six or eight fruits on each; place a small forked stick to support the fruits. On bright days and with drying winds plants will want looking over twice daily for water; if once allowed to get dry they seldom recover. Give liquid manure water liberally until the fruits change colour. Keep the plants clear of runners and remove to a cooler house,

where more air and rather less water can be given, so as to improve the colour and flavour of the fruits. Continue to introduce plants from the cold frames as required to keep up a constant supply.

#### GRAFTING.

If the trees were headed down as advised in previous calendars, and the sap has begun to rise in the stocks, grafting may be proceeded with. The end of March or beginning of April is generally the best time for carrying out the work, but much depends on the locality and season. It is necessary to exercise great care in grafting, and to have healthy, dormant scions, which were cut off last December and laid in soil under a north wall. The scions should have four to six buds each; the middle portion of the shoot is the best. Crown grafting is generally preferred for large branches; remove a small portion of the branch to where the wood is smoothest and in the best position for receiving the grafts. The ends being made smooth with a sharp knife, cut the rind about 2 inches down the stock. The scion should be cut wedge-shaped, and should have a small shoulder that will rest on the top of the stock. Let the cut part of the scion be the same length as the cut part of the stock. Insert the scion and see that the inner bark exactly joins on both sides. Tie the grafts in firmly with raffia, and cover with grafting wax, which is easily applied and is better than clay. It is a good plan to support the grafts with a stake to keep them from being blown out. Where the stock and scion are about the same size whip grafting is best. Cut a slip in an upward direction from the stock, and one the same size from the scion, cut a small tongue in the scion to fit a similar one in the stock. Tie together firmly and wax over. Remove any suckers which appear below the graft. The ties should be removed as soon as union has taken place.

*Impney Gardens, Droitwich.*

F. JORDAN.

### KITCHEN GARDEN.

#### CAULIFLOWERS.

PLANTS wintered in cold frames should now be planted out on a warm border and drills be drawn a few inches deep so as to afford as much shelter to the plants as possible; twigs of Spruce may be placed round each. In the event of severe frost it may be necessary to cover the plants with flower-pots for a few nights. Those from early sowings in boxes may now be placed in a sheltered position to harden off. Very early heads may be bad where they can be planted at the foot of a warm wall, but they require great care in maturing. Plant out autumn-sown Cabbages in the open quarter. Lift the plants carefully with a trowel, and make firm when planting; drills for the early sorts may be about 20 inches apart, the larger sorts 2 feet apart.

#### PARSNIPS.

For this crop select a piece of ground of good depth, stirring and breaking it well with a digging fork. The seeds must be sown in very shallow drills about 15 inches apart. Sow two or three seeds together at 8 inches to 10 inches apart, afterwards thinning them to single plants; rake very lightly after sowing. If extra large or exhibition roots are desired holes should be made with a large dibber, filling these with a mixture of rich sandy soil, which should be made quite firm. Sow a few seeds in each and cover lightly.

#### BROAD BEANS.

A large sowing of these should now be made, as the ground is still rather wet and cold. A fairly dry and sheltered spot would be chosen for the first sowing, as the seeds are very liable to rot. Dibble the seeds in 6 inches apart. If they have been sown in boxes early in the year they should now be standing in cold frames. Plant out early next month in rows 2 feet apart.

#### AUTUMN-SOWN ONIONS.

These should now be transplanted on a rather heavy soil. Take out a small trench with the spade and spread the roots out carefully. The rows may be 15 inches apart to allow the hoe to be used with freedom. If the plants have been grown in a sheltered position and become drawn the tops may be shortened without harm. If the store

Onions are running short some of these may be left in the seed-bed, as they will soon come into use.

#### PARSLEY.

A sowing should now be made in some warm corner of the garden. Plants raised in heat should be hardened off ready for planting out early in the month. Plants out of doors are now beginning to grow, and may be encouraged by a slight dressing of chemical manure sprinkled between the rows and hoed in.

THOMAS HAY.

*Hopetown House Gardens, Queensferry, N. B.*

#### CHRYSANTHEMUMS.

We have now come to a period in relation to the Chrysanthemum which marks one of the most important stages in their cultivation, especially to those growing the plants to produce exhibition flowers. If all has gone well with the young plants these should by now be quite ready for shifting on; the majority, which will include all the more robust, into 6-inch, and the weaker varieties and plants in a size smaller pot, viz., 5 inches in diameter. It is fatal to allow too much pot room at any period of their growth, and especially so at this time, or the plants are apt to become over-watered, and when this is the case they seldom recover completely. The pots and crocks should

required for a few days. During bright weather and cold cutting winds, which we often experience at this time of year, frequent dampings overhead and a thin shading will prove beneficial until the plants have recovered from the slight check. After three or four days thoroughly water in, filling up the pots at least three times, thus making quite sure that every particle of the soil is well moistened, when air should be gradually admitted more freely. Never allow the growths to become drawn, as short, stocky joints must be encouraged. Very little water will be required at the roots for some days, but syringe the foliage frequently, dust the points every ten days with tobacco powder, which is best done in the evening, and well syringe the following morning.

#### SUMMER-FLOWERING BORDER VARIETIES.

These now play an important part in brightening the borders during late summer, when the majority of flowers are on the wane. They are of great value for cutting, and the ease with which they are grown recommends them to all. When selecting varieties those of dwarf or medium habit should be chosen, as these require less staking and are more suitable for massing. To see them to the best advantage devote a border entirely to their culture, and this should have been previously well trenched or deeply dug and some well-decayed manure freely

cuttings for the purpose will be easily obtained from plants kept in a cold frame.

#### DIPLODENIAS.

The plants no doubt in many instances have been given previous attention in the way of repotting and starting into growth. A stock of young plants can be obtained by taking cuttings from the young growths as they become sufficiently advanced. The pots in which the cuttings are to be inserted must be thoroughly drained. Two parts sand and one of peat make a good compost. A bottom-heat of 75° is necessary in which to plunge them, and a bell-glass should be placed over the cuttings. The young growths of plants intended for specimens should not be trained over the trellis, but up strings extending from the pot to the roof of the house, as in this way they are much easier to keep clean, and, naturally, through greater exposure to air and light, are short jointed and firm and better prepared for flowering. Mealy bug, red spider, and thrips are the principal insects that infest these plants, and while the former can be kept in check by sponging, the two latter can be got rid of by syringing and by fumigating occasionally with XL All Vaporiser.

#### ASPIDISTRAS.

These more than any other plant will bear with impunity the rough and tumble experience of decorative work. The present is a capital time to propagate, and this is effected by dividing the rhizomes, which are hard, and must be cut through with a sharp knife. Each division should have one or more crowns attached; pot them, and afterwards place thickly together in a house (the temperature of which should range between 50° and 60°) and syringe well.

#### CINERARIAS.

Sowing seeds is a matter to which attention may be called, as much of the after success in Cineraria culture depends upon the time the young plants are raised and the way in which they commence to develop. Sow the seeds thinly on the surface of a light, sandy compost, and with more of the mixture rendered fine by passing it through a fine sieve. Cover them over lightly, and finally apply water from a fine-rosed can.

The seeds will soon germinate in a close temperature of 60° to 65°, and the seed-pots should have pieces of glass laid over the top, and the whole be covered with paper or other material to exclude light and maintain the soil in a moist condition.

J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*



THE OLD DOUBLE WHITE PRIMULA IN MESSRS. CRIPPS' NURSERY, TUNBRIDGE WELLS.

be scrupulously clean and thoroughly dried before use, and well soak the new pots.

#### DRAINAGE.

This may appear a small matter; it is essential to produce the best results. Place one large inverted crock over the hole, gradually building up the various sizes, which should be at least three, finishing off with quite fine ones free from dust, over which should be placed sufficient fibre taken from the loam heap to prevent the soil clogging. A suitable compost is as follows: Four parts good fibrous loam and one part finely-sifted old Mushroom bed manure, to which should be added a 6-inch pot each of crushed charcoal, bone-meal, and sufficient coarse silver sand or clean road sand to make it porous. Prepare and thoroughly mix the compost in an open shed several days before using, making quite sure it is in a suitable condition, being neither too wet nor too dry before the potting takes place. When everything is in readiness proceed with the work, disturbing the roots as little as possible, and pot thoroughly firm, using the potting-stick for the purpose, and finishing off with a little of the finest of the compost. Neatly stake, damp over the surface, and arrange the plants in a workmanlike manner in cold frames, if possible facing south. Very little air will be

incorporated. As the ground is now in a workable condition, knock over the surface with a fork to break up the lumps, so that it will rake down finely when planting time comes early in April. The varieties chosen should be distinct, and if planted in masses or rows of one sort, paying attention to the heights and colours, the effect will be pleasing. Those wintered under glass should now have plenty of air to thoroughly harden the growth.

E. BECKETT.

*Aldenham House Gardens, Elstree.*

#### INDOOR GARDEN.

##### POINSETTIA PULCHERRIMA.

FLOWERS in winter appear to be quite as much in demand as during the summer, and to meet requirements a little forethought is needed. For the purpose there is no plant more in request than the Poinsettia, which is appreciated for decorative work of every kind. The finest coloured bracts are produced upon plants that are propagated from cuttings annually, and to have them good by November next put into heat at once a few old plants, syringe and encourage them to make young shoots, which by the early part of June would be ready for taking off as cuttings. It will be necessary to propagate later batches, but

## THE INDOOR GARDEN.

### THE OLD DOUBLE CHINESE

#### PRIMULA.

WITH all the advance that has been made with Primulas we have not yet got anything to supersede this old favourite. I do not know when it was first introduced, but it must be over forty years ago, and though during this period it has had to be propagated from cuttings, it still maintains its character as one of the most useful winter-flowering plants we have. As usually grown for cut bloom for market, the plants begin to flower about the end of September, and a continuous supply of bloom is kept up until well into the spring. It is usual to finish picking flowers at Easter. The plants are then prepared for propagating for the following season's supply. They may be kept rather dry for a few days, and should then have all the old leaves taken off, the stems carefully cleaned of any stalks which may have been left when taking old leaves off earlier. Any stray bloom-stems should also be removed. After cleaning it will be found that there is a good length of bare stem, and this

is covered by "earthing up" with leaf-mould, loam, and sand in equal parts, pressing it round quite close to the base of the leaves or a little above. The crown of the plant must not be covered but be placed in a warm house and kept moderately moist. New roots will soon be produced from the portion of stem that has been covered up and new growths without flower-stems will start. When sufficiently rooted they may be cut off close to the old soil, and several rooted plants will be obtained from each, which, if potted carefully in a light, sandy compost, will soon fill the pots with roots. They must be kept close and shaded until they get a good start. There may be some that have not made roots, and these may be put in as cuttings, and will root if put in the close propagating pit and kept well shaded. Primulas do not like bright sunshine at any time. Even in the winter if it comes out very bright it will cause them to wither. In growing the plants through the summer they will do well in a pit with a northern aspect. They like a moist, cool bottom to stand on, but too much moisture on the foliage will cause damping. After the plants are well established manure may be used freely, but it should be of only moderate strength. Various composts may be used for potting. I have always succeeded well with a good loamy compost, say, fibrous loam two parts and one part made up of leaf-mould, manure, and sand. Good drainage should be given, and the plants potted moderately firm, keeping the crowns well down. They should be taken indoors early in the autumn or before much wet weather occurs. During the winter they will continue to flower well in a temperature of from 55° to 65° Fahr. Plenty of light is essential, and careful attention to watering.

The illustration represents a portion of a house in Messrs. T. Cripps and Sons' nursery, Tunbridge Wells. It is hardly necessary to add that these Primulas are well grown there.

A. HEMSLEY.

### RESTING FREESIAS.

In the cultivation of these ever-popular flowers the common mistake so often made with these and other bulbous plants is the too hasty drying off after flowering is over. It was no uncommon sight to see Freesia pots placed aside, and, so far as the water is concerned, altogether forgotten, with the result that their growth prematurely dried up just at a time when, for the welfare of the corms, it was so much needed. If those who have hitherto failed to obtain vigorous and freely-bloomed pots of Freesias from Christmas onwards were to take the same care of them after as before the flowering period, no complaint would be heard in succeeding years. The effort of the plant is devoted first to the production of leaf and flower, and then follows the development of the corm. The result of repeatedly cutting down the foliage of the Crocus or Daffodil in a green state has almost exactly the same baneful influence. A shelf is an excellent position for any plants awaiting maturity, but while this is true under the charge of a careful grower, it is just as unsuited to the one addicted to irregular methods of work. The roots will rest in safety anywhere once the foliage is ripe and the soil is kept dry.

W. STRUGNELL.

### ADIANTUM FARLEYENSE.

This is the most handsome of warm house Ferns. Many cannot grow it to their satisfaction, however, and frequently this arises from want of sufficient heat. I am convinced that it needs a lot of heat and moisture. For years we could not succeed with it. Having some improvement made in our stove, and having a disused flue to cover with Ferns, &c., we planted out three plants of this Fern close to and at the back of the boiler. We used loam and sand, placing the plants between stones. Although

when planted they looked very unhappy, they soon began to grow. This was four years ago; they still continue to increase, spreading more every year, and throwing up three lots of fronds annually. Abundance of water is given all through the year. In America this Fern is given strong bottom-heat, so as to force the young divided crowns rapidly.

J. CROOK.

## THE KITCHEN GARDEN.

### PLANTING LARGE POTATO TUBERS.

SO far as is practicable I purpose testing this season, in one way only, the respective merits of planting large whole sets, such as those varying from 6oz. to 8oz. each in weight, instead of cutting them into two or three pieces and planting them as ordinary sets. It so rarely happens that under ordinary planting cut sets do well. All who purchase planting tubers cannot have all their sets of one size. Some will certainly be larger than others, and unless planted whole, which seems to be a wasteful method, under ordinary culture, they must cut them into two or three pieces. I purpose planting my tubers whole on mounds 4 feet apart, but having only one of each variety, some of which are rather rare, I can adopt only that method of planting. Still it is one well worth testing, and the results may be interesting. I had sent me from the North as a gift three or four tubers of so many varieties all new. It was their possession which gave me the idea, and therefore I sought for and obtained some others, so that now I have Northern Star, Discovery, Sim Gray, King Edward VII., Sir John Llewelyn, Evergood, The Factor, Up-to-Date, Great Central, Gold Coin, Alpha, Diamond, and several others. These, all labelled with their names, are set up on end in a shallow box in a cool room and near the light. All have broken shoots well, and by the time I plant it will be easy to—if thought desirable—disbud down to some five or six stems, quite enough for any purpose. Holes will be made as mentioned, have the bottoms well broken up, some manure buried low down, then refilled, leaving mounds, so that it will be but needful with a trowel to draw out small holes to hold the tubers. After growth is made fresh soil will be liberally added to each mound.

A. D.

### NEW VARIETIES OF POTATOES.

I NOTICE that Potatoes are still causing much anxiety in Lincolnshire, as it was announced in one of the London dailies on the 16th ult. that there was a rush for the Eldorado variety at £2 10s. per ounce. No one can say that horticulture is not in a flourishing condition when such prices as these are given. From the grower's point of view it is absurd. Others that have been recently described as disease proof are not so. It will be interesting to note later on, when these new varieties have as it were settled down, how they compare with the older sorts. I am giving them a trial—at least those I can afford to buy. Still, these have got a wonderful name, and I shall be well satisfied if they turn out as well as the old Magnum Bonum did with me a quarter of a century ago. A GROWER.

### THE NEWER PARSNIPS.

THE Parsnip is generally considered of little importance, but it is one of the most profitable roots grown, and it is in such seasons as this, when the Potato is poor in quality, that the Parsnip is valuable. The older varieties, such as the Hollow Crown, are not esteemed owing to their sweet flavour. This is not altogether the fault of the root, but of the grower and the cook. The roots are generally not cooked long enough, and insufficient water is given. The sweet flavour is more noticeable in very large roots, those lifted early in the season, say October or November, and stored in a dry and at times in too warm a place, causing shrivelling. I would strongly advise leaving Parsnips in their growing quarters till the end of March, and then placing in a clamp or

covering with soil. This will give much better flavoured roots, and in the end less trouble. Should it be necessary to lift in autumn heel in thickly or clamp, and in this way the roots will be kept plump. As regards flavour a medium-sized root is much better than a large one. I would also advise later sowings. Only small varieties should be chosen and the roots cooked whole. They are of better appearance on the table, more digestible, and equal to choicer vegetables. I now come to the

### NEWER VARIETIES,

and these are very limited. They have smaller roots than the older ones, less core, and are not quite so sweet. The quicker the growth the better. There is no need of large quantities of manure; indeed, none at the time of sowing, as fresh manures encourage a forked growth, but land that was manured for a previous crop will do well. At the same time, deep cultivation is essential, and it is a good plan to trench in autumn. Of course by early sowing a long season of growth and large roots are secured. It is not necessary to sow so early. Many do so as soon as the soil is workable in February, and this is alright for large roots. I once had a stiff clay soil to deal with, and sowing operations were delayed one season well into April, and we never had better Parsnips than in that year, smaller certainly, but sounder and of superior quality. I do not grow the large varieties, such as the large Hollow Crown or Guernsey, as a Parsnip a yard long is of no advantage whatever. Of late years we have grown Intermediate and Tender and True. These are of recent introduction. The Intermediate is the better of the two, and in the future it will not be necessary to grow more than this; it is not unlike a well-grown, large stump-rooted Carrot, and in soils that are at all shallow this new Parsnip will be a decided gain; the foliage is small, and the flesh is not unlike that of the Student in quality. The last named is one of the best of the larger types. We make two sowings, one in March for early use and one later for use from December to May.

G. WYTHES.

## MISCELLANEOUS.

### HARDY SHRUBS FORCED.

VISITORS to the meetings of the Royal Horticultural Society and the various exhibitions held during the spring must notice the increased interest in forced shrubs and the great numbers that are now exhibited. True, forcing has been indulged in from time immemorial, but whereas it was in the olden days limited to a very few kinds we now see quite a representative collection brought on under glass. Taken altogether the Azaleas, among shrubs for forcing, occupy perhaps the front rank, for the colours range from white through the whole gamut of yellows, pinks, and reds, while in form of the flower and growth of the plant the different varieties show great distinctness. The compact habit of *Azalea sinensis*, or mollis, combined with its great profusion of bloom, renders it and the hybrids once removed therefrom, in which much of the habit of the original is retained, the most popular section for forcing, but much may be said for Ghent Azaleas, which are taller and looser in growth, and have smaller but in many cases brightly coloured and sweet-scented flowers. Generally speaking the varieties with bright yellow, orange, or flame-coloured flowers, of which Anthony Koster may be taken as a popular example, are most sought after. The pretty little *Azalea amena*, a representative of quite another class, brings us more closely in touch with the Indian Azaleas, whose beauty as greenhouse plants is so universally recognised. That charming hybrid *Rhododendron præcox* claims especial recognition for this mode of treatment, as its somewhat picturesque growth and profusion of bright mauve-pink blossoms are conspicuous.

Of other members of the Heath family (*Ericaceæ*) to which all the above belong, and are quite as useful for forcing, may be mentioned *Andromeda*



floribunda and *A. japonica*; and the *Kalmias*, usually limited to *K. latifolia*, but the early-flowering *K. glauca* is equally desirable.

The different members of the extensive *Rose* order (*Rosaceæ*) loom largely among the shrubs used for forcing, as, apart from the *Rose* itself, we have Almonds, Cherries, Plums, and Peaches, all now included in the genus *Prunus*. The Almonds may be easily forced, and the same may be said of the several double-flowered Peaches. None of these are, however, adapted for flowering when very small, and it is perhaps for this reason that the little *Prunus japonica*, or *sinensis*, is so popular for the purpose, as tiny bushes in 6-inch pots can be depended upon to produce a wealth of their comparatively large rosette-like blossoms. Of the Himalayan *Prunus triloba* too much cannot be said. Of double Cherries the Japanese varieties, such as James H. Veitch, stand in the front rank, as we have had many opportunities of seeing at the meetings of the Royal Horticultural Society within the last few years.

Some of the *Spiræas*, both herbaceous and shrubby, are among the best of flowering plants. Of shrubs the most popular for forcing is *S. confusa*, or *media*, but it does not stand alone, being closely followed by *S. arguta*, *S. Van Houttei*, *S. Thunbergi*, and *prunifolia* fl.-pl. All bear white flowers, but in the last-named they are double.

The graceful *Pyrus Malus floribunda*, represented by varieties differing principally in the depth of colour in the blossoms, is also of exceptional merit.

*Deutzia gracilis* has long been a universal favourite, but the new hybrid *Lemoinei* is becoming more popular for forcing, and is now in some trade establishments largely grown for the purpose. Lilacs, one of the oldest of plants treated in this way, still retain their popularity, and I should be afraid to hazard a guess as to the number of neat little bushes studded with flower-buds that are sent annually to this country from the Continent.

Of other good hardy shrubs for forcing the following may be briefly mentioned: *Choisya ternata* (Mexican Orange Flower); *Clematises*, now frequently seen among early flowering subjects; *Cytisus andreanus*, very rich in colour under glass, where it is, however, liable to be attacked by aphides; *Forsythia suspensa*, which as a large plant is very beautiful with its wealth of golden blossoms; *Laburnums*; *Magnolias* of sorts, from which *M. stellata* must on no account be omitted; *Ribes sanguineum* (Flowering Currant); *Staphylea colchica*, with white agreeably scented flowers; *Viburnum Opulus sterile* (the Guelder Rose); and its Japanese representative, *V. plicatum*.

As a standard the *Wistaria* is very beautiful, the pendulous racemes of blossoms are then seen to the best advantage; and the long racemes of *W. multi-juga* afford a pleasing change.

At the present day, when so much is heard of the vast sums we pay the foreigner for different things that might be just as well produced in this country, it would be interesting, and perhaps instructive, to know the amount spent annually on the Continent for forcing shrubs alone. H. P.

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

### ACACIA ARMATA AND BORONIA MEGASTIGMA.

A few sprays of *Acacia armata* and *Boronia megastigma* for your table. These are extremely

useful plants for the conservatory at this season of the year. The plants here have made remarkable growth. When they were bought two years ago they were about 9 inches or 12 inches in height; now they are several feet. The *Boronia* is very sweet-scented, one plant being sufficient to scent a large greenhouse. They have been potted in a mixture of peat, loam, leaf-soil, charcoal, and sand. The principal reason they grow so vigorously is that they are fed with urine, diluted with about thirty times its bulk of water.—F. W. PEARCE, *Templemere, Weybridge*.

Very interesting flowers. The *Boronia* is one of the most fragrant of all plants, and the *Acacia* is a deep rich yellow; it is the most popular of all *Acacias* for pots.

### IONOPSISIDIUM ACAULE.

I am sending you a tiny plant for your table, which I think is interesting as being in flower at this time of year. It is an annual—*Ionopsisidium acule*—the seeds of which we first had from the Hardy Plant Nursery at Guildford, where we were told it was quite worth sowing in patches on the rockery, as it would flower freely all the season. We also sowed a long line of it in front of a mass of *Viscaria* of many colours last year, and this plant is a self-sown seedling in that border. It has been in flower for more than three weeks, and has gone through extraordinary variations of temperature during that time, from 7° to 12° of frost alternately with warm spring days. The seeds should be sown in the spots where the plant is desired to flower.—J. M. N., *Tunbridge Wells*.

A pretty little annual from Portugal, quite tufted, and very free.

### A SERIES OF ORCHIDS.

Mr. Bradshaw sends from The Grange, Southgate, N., a series of fine varieties of certain Orchids, particularly of *Cattleya Trianae*. *Fairy Queen* is very delicate in colour and of dainty shape, quite a gem in its way; *amesiana* is very beautiful, the sepals and petals pure white, and the lip light lilac in front, with pale yellow colouring in the throat; *aurantiaca* shows a suffusion of light purple over the whole flower, with yellow in the throat; *Rajah* is a wonderful colour, the lip intense rose-purple and yellow at the base, the sepals and petals soft purple, with a darker stain on the upper part, a variety of great beauty. Mr. Bradshaw also sends several varieties of *Lycaste Skinneri*. One is named *Apple Blossom*; the flower is white, except for a brick-red suffusion in the throat. Other forms were very deep crimson; altogether a most interesting series.

### FLOWERS FROM EXETER.

The Lady Acland sends from Killerton many interesting plants, and all from the open garden except *Clianthus Dampieri*. *Narcissus cyclamineus* is one of the most welcome of its race; it is of quaint shape, and the colouring of the flowers is rich. We are pleased to see this pretty *Narcissus*. *Iris stylosa* and its white variety are not too well known, but, as mentioned in a separate note, they are very useful in winter, when the flowers may be used for vases; the white is very pure. It is quite happy at the foot of a warm wall. *Iris orchioides* was welcome; its rich yellow flowers and long, strap-shaped leaves have much charm. *Drimys aromatica* has warm red bark; it makes a pretty upright bush 7 feet or 8 feet high at Killerton, and the bright bark shows well through the glossy leaves. *Lithospermum prostratum* has been in flower all through the winter. Other plants sent were *Grevillea rosmarinifolia*, the sweet-smelling *Lonicera fragrantissima*, *Erica lusitanica* and the Mediterranean Heath (*E. mediterranea*), the beautiful winter Heath (*E. cinerea*), *Rhododendron præcox*, and a few other early varieties in flower; *Primula denticulata* in charming variety, one the pure white, and others of varying shades; and *Pieris (Andromeda) japonica*. It is a pity that a shrub so beautiful as the *Pieris* is not in every good English garden; the flowers are like strings of white bells, and appear in profusion. The only flower not from the open was *Clianthus Dampieri*

(the *Glory Pea*). This is in a greenhouse at Killerton, and grafted on *Colutea arborescens*. We have seldom received a more interesting collection of open-air flowers at this time of the year.

## USES OF BRITISH PLANTS.

(Continued from page 230.)

### LORANTHACEÆ.

**M**ISTLETOE (*Viscum album*).—The English name is derived from "Mistil-tan," meaning "different twig" in Anglo-Saxon. In the fourteenth century it was spelt *Mystyldene*, and was also called *Lignum crucis*. The white berries, familiar to all at Christmas, are used for making bird-lime. In the fourteenth century there is a recipe for making a lye of the ashes of the Mistletoe growing on the Oak, Quince, and Apple tree. If persons washed their heads with it it is said to make the hair yellow. The stems and foliage have been given to sheep in winter when fodder was scarce, and they are said to have much relished it.

### EUPHORBIAEÆ.

**Mercury** (*Mercurialis perennis*).—This herb, of which the male and female flowers are on separate plants, is very common in thickets, &c. It is very acrid and poisonous. When steeped in water it yields a purple dye, but does not appear to have been used as such. It has proved fatal to sheep, but dried in hay it is a harmless fodder. When boiled it has been eaten as a Spinach. The annual species which has been introduced is equally dangerous. Gerarde writes: "I found it under the dropping of the Bishop's house at Rochester, from whence I brought a plant or two into my garden, since which time I cannot rid my garden from it." It is most abundant in Malta.

**Caper Spurge** (*Euphorbia Lathyris*).—This is a doubtful native, being often naturalised, as it has long been cultivated. It is a South European plant. The name "Caper" is given to it because the unripe fruit, which much resembles that of the garden *Nasturtium (Tropæolum majus)* has been pickled in salt and vinegar; but as the milky juice, characteristic of all the Spurges, is poisonous, it is a dangerous plant, and should not be used. The oil of the seeds, like that of *Castor Oil* and *Croton* of the same family, is purgative. The milk of the several Spurges of our fields and gardens has the reputation of curing warts.

**Box** (*Buxus sempervirens*).—This is regarded as truly native on Box Hill. As it can be easily clipped, it has been cultivated for "topiary" work from the time of the Romans, the operator being called a "topiarius." It was invented by a friend of Julius Cæsar at the beginning of the first century, and much practised in the reign of Charles II. in England, as it is, indeed, to-day. The wood has a remarkably close grain, so that the annual rings are almost imperceptible. Hence it possesses great value for mathematical instruments and for wood engravers. The bark and leaves were used medicinally formerly, while a decoction is said to give an auburn colour to the hair.

### URTICAEÆ.

**Stinging Nettle** (*Urtica*).—We have three species, the dioecious (*U. dioica*), the monoecious (*U. urens*), and the introduced Roman Nettle (*U. pilulifera*). The young leaves of the first supply a good substitute for Spinach in early spring, and dried in hay make an excellent fodder. The stems supply a strong fibre, formerly used as a substitute for Flax. The so-called "China Grass" (*Bœhmeria nivea*) is an ally to the Nettle, and makes a very good imitation of linen. Medicinally, Nettle Tea is often used in the country. It is slightly astringent. In the Middle Ages Nettles were used in various recipes.

**Hop** (*Humulus lupulus*).—It is somewhat doubtful whether the Hop be a true native, though common enough on our hedges, and was so in the sixteenth century. Before its use a number of herbs with bitter leaves were used, the drink being called ale, throughout the Middle Ages; but when Hops were used the German word "beer" came into use. The young shoots are sometimes eaten like Asparagus. G. HENSLOW.

## THE FRUIT GARDEN.

### ALPINE AND AUTUMN STRAWBERRIES.

#### NOTES IN SEASON.

THOSE who study flavour in fruit and require a long supply will do well to give the alpine section more consideration, and the autumn-fruiting sorts are well worth including if special culture is given. Many object to the alpine on account of their size, but this point will, I think, be met, as some of the newer ones, such as the Sutton Large Red and others, are much bigger than the older varieties. There are, however, other points to consider apart from mere size, namely, flavour and long bearing, as I have seen the alpine raised from seed at this date continue in fruit from July to October. It may appear somewhat out of place to write on alpine Strawberries early in spring to those who have not grown them, but this is the best time to sow the seed for next season's crop. The alpine is so well grown at Gunnersbury House by that splendid cultivator Mr. Hudson, who has on many occasions staged these fruits in grand condition, that I am sure he will pardon me when I say that he prefers seed to runners, though I will briefly touch upon the latter. To quote Mr. Hudson's words, he says, "those who are contemplating the cultivation of alpine Strawberries cannot do better than raise their stock from seeds, as seedlings are incomparably better than runners." The culture is simple. On the Continent the seed is generally sown in autumn, or as soon as it is ripe. When grown thus the plant is treated as an annual, and there is no question that the results from seed are far superior to those from runners. If grown from the latter, choose the early or first ones if possible, not those from weakened plants, or from those that have been a long time on the ground. The seed should be sown thinly in shallow boxes, very lightly covered, and given gentle heat if possible, though a little later I have raised seed in cold frames, but grown thus they require less moisture at the start. The seeds germinate quickly in heat, but the seedlings must not remain too long when well above the soil, but be pricked off singly and given warmth till established, giving a light, sandy soil with old, fine, decayed manure or leaf-soil. They must be treated much in the same manner as an early crop of Celery plants would be at the start. When the plants are well established they can be removed to a cold frame close to the glass and gradually inured to the air, so that by the end of May they will be large enough to plant out. I have seen quite as good results by diverse treatment; the seed is sown in pans, and the seedlings pricked out in frames in rich soil and then transplanted later in their permanent quarters. Another plan, but one that takes more time to get plants full sized, is to sow on a warm border and transplant when large enough, but I do not advise the latter. There is a gain in some respects by sowing in early autumn, as then the plant is treated like an annual. It fruits well the following autumn, and is then at its best if attention has been paid to cultural details; but to do so the soil must be made suitable, the drainage must be good, and a sheltered position selected.

#### PLANTING OUT AND PREPARATION OF BEDS.

I prefer beds, but the soil should not be heavy, and deep cultivation is essential, as this preserves the plants from injury by drought.

Though the plant is a shallow rooter it requires much food and moisture to build up succession crops. An open position or a sloping bank will suffice. If the position is cold or the soil heavy give a good supply of well-decayed manure. Work it in when digging and keep the food near the surface, so that the roots quickly lay hold of it, if the plant is grown as an annual, but place it lower down if treated as a biennial. The seedlings may be planted 15 inches apart, and 18 inches between the rows. I have grown them 12 inches apart, but this does not give room for cleaning or mulching; the latter in dry summers is a great gain.

Use light, rich material. The plants will show fruit like the ordinary Strawberry in the spring, but the trusses should be removed till the end of June, as the plants will then have a chance to strengthen and build up a good autumn crop. This more refers to spring-sown plants. I have had several crops from autumn-sown, as the first runners will provide the succession crop. In dry seasons the plants will require watering during growth in early summer, and to be watered overhead late in the day to ward off red spider. For the latest supplies the spring-sown plants of the previous season will give a wonderful crop if given food. The value of sloping borders for these plants is more evident in autumn than at any other time, as then the plants dry more quickly, and are more easily ripened. With shortening days the fruits need full exposure, and by allowing ample room at the planting they ripen better.

#### THE BEST VARIETIES

are Sutton's Large Red, a valuable introduction, the fruits are much larger than the old alpine; this fruits till the end of October. Another very fine type is the Rouge Amelioré, a great favourite with Mr. Hudson. It has long red fruits. The White Alpine or Blanc Amelioré, Berger's Improved, a rich crimson fruit; Belle de Meaux, also red and highly flavoured—these are true alpine, and are all worth growing.

#### THE PERPETUAL TYPE

is so closely identified with the alpine that at times it is grown as such, but these hybrids are mostly obtained by crossing the garden variety with the alpine, and the results are later fruits. Though smaller than the one parent, they are most valuable for autumn supplies. These are usually grown from runners, though the St. Antoine de Padoue and the St. Joseph can be grown, like the alpine, from seed. When grown from runners layer these in the beds and peg down into some turfy loam. When rooted transfer them into their fruiting quarters, or they may be layered into small pots. I have seen excellent crops of late fruit obtained by layering the strongest runners into 5-inch pots in June or July, and these make good fruiting plants for placing indoors later on for an October supply. When planting out it is well to give a little more room, as these varieties make more growth than the alpine—at least, some of them do. Eighteen inches to 2 feet each way is none too much, and make a plantation yearly. Like the alpine, if for autumn supplies the spikes should be removed, and the first runners taken for pot work or first crop next season. Planted out in rich soil in August or later, and kept clear of flower-spikes the next season till May or June, they will give a supply in advance of the alpine. For a succession Strawberry to follow the ordinary ones plant the perpetual varieties under a north wall. Grown thus they follow the summer fruiters. The plants should be kept free of runners other than those

required for stock. If the plants are kept more than one season the new growths should be layered for the next crop. Cut out the old crowns. I prefer layering, however, and planting yearly, as then the ground is given better cultivation. The best varieties are those I have referred to above, also Louis Gauthier, a large white fruit with pink shading. It is robust, and requires more room. La Constante is also excellent.

G. WYTHES.

## OBITUARY.

### MR. DAVID DRUMMOND.

A S head of the well-known firm of William Drummond and Sons, seed merchants and nurserymen, Mr. Drummond (who died on March 15, aged ninety-one years) held a prominent place in our mercantile community, and was highly esteemed. It is now more than sixty years since Mr. Drummond left Scotland, his native country, and settled down in Dublin, where his business—conducted on sound principles and with a keen appreciation of the wants of his numerous patrons—prospered with the passing years until he found himself prominent in the ranks of our most successful city merchants. His worth as a citizen and as a man of business was recognised at different times by his appointment to various public positions. During his long and active life he was a director, for more or less lengthened periods, of the Midland Great Western Railway, the Royal Bank of Ireland, the Alliance Gas Company, the Merchants' Warehousing Company, and the Dublin General Cemetery Company. Much as he will be missed in commercial circles, his death will leave a blank in connexion with many charitable institutions which will not be easily filled. As chairman of the Hospital for Incurables he took a deep interest in its management and well-being, and his purse was ever open when its funds were low to meet any claims made upon its finances. His philanthropic spirit refused to be bound by distinctions of creed; he was ever ready to aid the sorrow-stricken and afflicted, and poverty never appealed to him in vain. At one period of his life he interested himself in the public questions of the time, and had the honour of being invited to contest the city along with Sir Arthur Guinness, an honour which, however, he declined. Although he held the Commission of the Peace for County Dublin, he rarely took part in magisterial functions, preferring to devote his time and energies on the one hand to such matters of business as required his personal attention, and on the other to those benevolent works with which his name will long be associated.—*Irish Times*.

### MRS. SPENCER.

We regret to learn of the death of Mrs. Spencer, wife of Mr. Thomas Spencer, head gardener to H. C. Moffat, Esq., Goodrich Court, Herefordshire, which took place on the 24th ult. Mr. Spencer has been gardener at Goodrich Court for many years, and both he and his son, who is foreman there, were formerly pupils with Mr. Colman at Eastnor Castle.

### MR. NICHOLSON, ALFORD, N.B.

By the death, on Wednesday, the 23rd ult., of Mr. George Nicholson, head master of the school of Alford, N.B., that district has lost one who was not only an ardent amateur gardener himself, but who did his utmost in other ways to promote horticulture among those with whom he lived. In addition to other work for the promotion of gardening Mr. Nicholson was for a number of years the secretary and treasurer of the Alford Horticultural Society, and only relinquished these offices last year, when failing health prevented his discharging them any longer. He was held in great respect in the district.

# THE GARDEN

No. 1690.—VOL. LXV.

[APRIL 9, 1904.]

## FRUIT PROSPECTS.

**W**ITH the bitter recollections of last year still fresh in mind, it is only natural that fruit growers, and particularly those who grow fruit for a living, should be more than usually anxious about the prospects this season. At the moment of writing the outlook is promising, but it is never safe to prophecy, because the flowering time is not over yet, and we know from experience that a spell of spring frost is liable to occur at any time. Never were fruit prospects brighter than last year until those fatal nights and days in April, and after that all was ruin.

### APPLES AND PEARS.

During the past year of perpetual rain and little sunshine pessimistic remarks have been frequently made about the unripened state of wood, and fears have been expressed that, according to accepted theories, a fruitful season could hardly be expected to follow so sunless a summer and autumn. But Nature has a way of her own of upsetting theories, and on Apples and Pears, in orchards and gardens, everywhere the wood is firm and healthy, and the abundance of fruit buds now rapidly swelling give promise of abundant blossoming. Last year the April frosts were so severe that they ruined Pears that were set and Apples that were only in the bud; but the severity was exceptional. It has been hard all along to observe any redeeming features in the fruit famine of last year, but they exist, nevertheless, and in going through gardens and plantations of late we have observed trees, hitherto weakly, that have made strong growth. In fact, they have had a rest, and, being for a season under no strain of fruit bearing, they have occupied their energies in making wood. In this they were assisted by the climatic conditions of last year, and the result is that hundreds of trees now look as though they had taken a new lease of life. In the same way trees already strong are charged with still more vigour, and in these cases nothing is more desirable than heavy crops, if only for the purpose of checking excessive exuberance.

### STONE FRUITS.

What a blessing it would be to have another good Damson year. Some seasons ago tons of this useful fruit rotted on the ground because it did not pay to harvest, but crops have been poor since then. Like other early-flowering

fruits, Damsons run risks in April, but at this time buds are plump and numerous, and it would seem that only a favourable spring is needed to ensure a crop. Though Damsons are widely grown, they are found in quantity in particular localities that seem peculiarly adapted to them, and naturally it is in these districts that the greatest anxiety is felt about the prospects for the season. As with Damsons, so with Plums. We can remember seasons of glut and seasons of famine, and last year the few growers who were able to pick high-class dessert varieties or common cooking sorts made money out of both. Prospects are now fair, and growers are hopeful, but they will be glad to see the flowering season passed safely over.

Judging from the rapidly swelling state of the buds at the moment of writing, the Cherry orchards of Kent will soon be masses of bloom. No fruit crop in the southern county is more important than the Cherry, and the miles and miles of orchards practically supply the country with home-grown Cherries. Last year many orchards that were expected to yield tons only gave a few bushels, and some nothing at all, so the loss was heavy, and growers are naturally looking forward to a better state of things this year. Whatever may be said about ways of fruit growing generally, Cherries have done well in Kent, and when the crop fails it is not the fault of the grower. For the sake of the growers, pickers, dealers, and consumers it is to be hoped that the Cherries will pass safely through the trying ordeal of the next few weeks.

### BUSH FRUITS.

One cannot hope for much in the way of Black Currants, for no matter how favourable the season may be, the bud-mite has made great headway during the past few years, and bushes everywhere, both in gardens and plantations are covered with distorted buds. At the present time the bud-mite is master of the situation, and Black Currant growing is rapidly becoming a lost industry, which is very unfortunate, considering what a highly prized and profitable fruit this has become. The past wet year has been favourable to the spread of the pest. Of varieties of Black Currant, Baldwins and Champions have been the mainstay of market growers for years, but these are now giving way to Boskoop Giant and a few others that are not so subject to disease.

Gooseberries and Currants rarely fail, but the buds of both these fruits and Plums have

suffered terribly from bullfinches. Several market growers have spent pounds in covering the bushes with strands of thread as a means of protection, and soot and lime have been used wholesale. Gooseberry bushes protect themselves against frost with their own foliage, and by doing so last year this was one of the few crops which escaped, and in most districts it was profitable.

The flowering season of fruit, with the possibilities of spring frosts, never comes round without means of protection being discussed, and much is done in gardens in this direction by covering trees and bushes when in flower with some light material. In orchards and market plantations, however, no such means are adopted, and the growers are entirely at the mercy of the weather. The day may come when some practical means of protecting fruit blossom generally against the dangers of spring frosts will be adopted, but that day is still in the future. We read accounts sometimes of the coalition formed between the meteorological authorities and the Orange growers in Florida and elsewhere, by which the former give warning of the frosts that may be expected while the trees are in bloom, and the latter set smudge fires going under the trees, and the smoke, rising upwards, keeps the frost away, and the crop is saved. To the British fruit grower all this may sound very far-fetched and impracticable, but a future generation may see the necessity of similar methods, and perhaps marvel that they were never tried before.

## DESTROYING FERNS.

### TWO MEN SENT TO PRISON.

It is with very great pleasure we read in the *Daily Mail* of Saturday last that "the Axminster magistrates have sent to prison, without the option of a fine, two men who had robbed a plantation of its Ferns. With a third man they had been found with a cart containing between 700 and 800 plants; the plantation from which these had been taken was left in the condition of a dug-up garden. The two men sentenced were old offenders; the third had the option of paying a fine. There are parts of the country, an old resident says, which by such men have been stripped utterly bare of Ferns, and even Lichens. Pleasant roadsides and banks have been turned into dreary wastes. Some wild Ferns have, perhaps, totally disappeared. In the spring the worst damage is done, for then there is a large demand. The plants, too, are small and very saleable. Ferns are best potted in the autumn, but there is less demand then. As soon as the

fresh greenery shows itself on the brown soil it is ruthlessly torn away, and the roadside is robbed of at least a year's beauty. Cartloads of wild Ferns are not unusual. The people who collect them go round the lanes as a rule with a bag and a spud, and dispose of their finds in a neighbouring large town. There exists a sort of informal Fern fair, where people of gipsy appearance dispose of small quantities at practically any price they will fetch. And perhaps the largest market is through the post. What might be called the serious trade does not touch wild Ferns to any great extent. Hot-house varieties are more remunerative. With Ferns Primroses suffer, as they bloom at the same season—just when people take the greatest interest in their gardens."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- April 12.—Brighton Horticultural Show (two days).  
 April 13.—East Anglian Horticultural Club Meeting.  
 April 19.—Royal Horticultural Society's Meeting (National Auricula and Primula Society's Show).  
 April 21.—Norwich and Birmingham Daffodil Shows (two days).  
 April 26.—Birmingham Auricula Show.  
 April 27.—Chesterfield Spring Show.  
 May 3.—Royal Horticultural Society's Meeting.

**Midland Daffodil Society's show.—Alteration of date.**—It may be of interest to your readers to know that at a recent committee meeting it was decided, on account of the lateness of the season, to postpone our exhibition until Tuesday and Wednesday, the 26th and 27th inst., that is, instead of Thursday and Friday, the 21st and 22nd inst.; and, again, it will not in any way clash with the other shows which are being held on the 21st and 22nd inst., viz., Wisbech, Ipswich, Norwich, and Colchester. The Rev. G. H. Engleheart will exhibit his usual lot of new seedlings, which are generally one of the leading features of our show.—HERBERT SMITH, *Hon. Secretary.*

**Royal Caledonian Horticultural Society.**—This society, in view of the improved membership during the past two years, and in view of the international show to be held in 1905, is endeavouring to continue the increase of its membership, and at a meeting of the council held in Edinburgh on Wednesday, the 30th ult., thirty-eight new members were admitted. The essays sent in in competition for Mr. and Mrs. Martin White's prizes for essays on the cutting and preserving of flowers in water, were submitted with the judge's recommendations, and on opening the sealed envelopes it was found that the prizes were to be awarded in the following order: First, Mr. R. P. Brotherston, The Gardens, Tynninghame, Prestonkirk; second, Miss Perkins, care of Messrs. J. and A. Seth, Florists, Queensferry Street, Edinburgh; third, Mrs. E. J. Castle, Fairview, Fallsbrook Road, Streatham, and Miss Mary Grant, House Hill, Nairn, equal. Twenty-three plans have been sent in for adjudication in the plan competition open to under-gardeners. The awards will be announced at the society's show on the 25th prox.

**Southern Counties Carnation Society.**—We announced some time ago that the Southern Counties Carnation Society had decided to hold no more exhibitions, Mr. W. Garton, jun., having resigned the honorary secretaryship. Since the meeting the council of the Southampton Royal Horticultural Society has been approached. The members of the Carnation Society have been canvassed by circular, and a very large majority have consented to transfer their subscriptions to the Horticultural Society, several doubling the amount conditionally upon that society continuing the Carnation shows. The

representatives of the committees of the two societies met on Tuesday, the 29th ult., and arranged satisfactory terms for the amalgamation of the societies, and provisionally, on confirmation by the council of the S.R.H.S., a committee was appointed to revise the schedule of prizes, to which some very handsome donations have been promised. It was also resolved to hold the show on the pier at the end of July, the date being left open for the present. The council of the society met on the following Thursday evening and unanimously confirmed the arrangement made by the committee for the amalgamation. The special committee will include Mr. W. Garton, jun., and several members of the late Carnation society. Schedules will be ready in about a fortnight's time, and may be obtained of Mr. C. S. Fuidge, the secretary, London Road, Southampton.

**An international botanical and horticultural conference** will be held under the auspices of the Société la Rambertia, which formed the alpine gardens at Rochers de Naye, where M. Corveon is director. This conference will be held on August 16 and 17, in the gardens above-mentioned, under the presidency of Prince Poland Bonaparte.

**Rules for judging Grapes at Shrewsbury.**—With reference to the note in THE GARDEN of the 2nd inst. from Mr. J. P. Leadbetter, Tranby Croft Gardens, Hull, upon this subject, we are now informed that the amended rules for judging Grapes at the Shrewsbury show which have been adopted are these: "Each bunch will be judged on its merits, and points awarded as follow: A maximum of 11 points may be given to Muscat of Alexandria; a maximum of 10 points may be given to all other Muscats, black or white, and also to black Hamburg; a maximum of 9 points may be given to all other varieties of Grapes. The bunches to be staged on boards (singly if possible), and the whole arranged on a table space 8 feet by 4½ feet, in two tiers 2 feet 3 inches width. For the purpose of this competition Bowood Muscat, Charlesworth Tokay, and Tynninghame Muscat cannot be shown as distinct varieties with Muscat of Alexandria. Gros Maroc and Cooper's Black are also considered synonymous. Superior cultivation and finish will be considered of the greatest importance. At the request of intending competitors and for the sake of uniformity in point judging, the above arrangement has been come to after careful consideration and opinions given by experts, and will be the basis of this and future competitions. Each collection must be decorated, flowering or foliage plants (in pots not exceeding 5 inches diameter). Also cut flowers or foliage, in glass or ware or loose, allowed at the exhibitor's discretion.

**Cinerarias at Farnham Royal.**—We have written more than once of the Cinerarias in the nursery of Messrs. W. J. James and Son, at Farnham Royal, near Slough. This strain is world-famous. It has been brought to its present perfection by skilful hybridisation and a rigid restriction to pure and beautiful colourings. Harsh and strong magentas, and purple mingled with magenta, spoil many of the varieties of the past and present, but Mr. James eliminates these unpleasant shades, and the result is groups of refined colours, here a mass of cherry-red, there white as pure as a snowdrift, and in another place a full blood-crimson, the petals as deeply dyed as those of a Do Sagan Rose. All this brilliant and subtle colouring is very pleasant, and years of patient striving have been necessary to achieve it. The plants are dwarf in growth, compact, as we read in catalogues, and thick, with broad, healthy foliage, a background to the luxuriant flowers, which, taken individually, have a strength of petal and shapeliness that compel admiration. The colours include crimson with a white centre, purple edged, blue edged, self crimson, and many shades of blues. The blue colours are very beautiful, some varieties being wholly self, others deepened by contrast with a white centre. One large house is filled entirely with white and creamy white flowers, and this is a pleasant picture in April days when the indoor garden should be full of colour and fragrance. It is worth a long journey to anyone interested in Cinerarias to see

this home of a flower we regard as one of the most brilliant and varied in colouring at this or any other season of the year. In another house the stellata hybrids are approaching their flower beauty. These, as many of our readers are well aware, are marked by extreme gracefulness of growth; the flowers are like stars set on long, willow stems, and give cloud-like effects in the conservatory in spring. Mr. James has not been slow in acquiring a beautiful series of the stellata hybrids, which are the glory of the indoor garden during March and April and into May. The Cineraria has never lost its hold upon the affections of a flower-loving public, and the more recent hybrids have increased this popularity.

**Screens of Ivy.**—Considering the number of decorative plants that are annually spoilt by being placed in empty fireplaces and dark corners of rooms during the summer, I am surprised that Ivy screens are not used more for the above purposes; indeed, these screens are extremely useful in any establishment where much decoration is done. Oblong boxes should be made about 4 inches wide inside and of lengths according to requirements. Screens of light wooden latticework or wire should be fixed at the back, and over this the Ivy climbs. The exposed parts of the boxes may be covered with cork or Oak bark to hide the bareness of the timber, and trailing plants may be grown as well as Ivy to hang over the front of the box. Small-leaved Ivies are the best for screens, and if two or three plants are placed in a box and the growths trained on the latticework the latter is quickly covered with foliage. At any time of the year Ivy screens are very useful for standing in places unsuitable for more tender plants.—H.

**National Association of Retail Nurserymen.**—Following a banquet of local nurserymen in Rochester, New York (the 19th ult.), was organised a National Association of Retail Nurserymen. It is intended to solicit membership from retail nurserymen throughout the United States. The objects of the association are to promote cordial business relations between members and to obtain mutual benefits through united action in legislative, shipping, and other matters pertaining to the nursery business. All the Rochester nursery houses, wholesale and retail, were represented at the meeting, and several from Geneva, Newark, and Waterloo.

**Sparrows and spring flowers.**—All who love gardens and their associations have great objection to destroying any description of bird life. But, unfortunately, the kindness shown them is not always appreciated. It is folly to as-sume, as some do, that in destroying the flowers of Crocuses, Polyanthuses, Primroses, and some other early flowers, even those of the Gooseberry sometimes, that these feathered depredators are animated by pure love of mischief. That cannot be so. They search for food. But it is all the same strange to note how differently the birds behave. In some gardens, even near towns, not a flower is touched, but in others everything is destroyed. That may be because in the former case the birds have not tasted of the sweets secreted in the tubes of the flowers. But the harm done to the flowers and the destruction of floral beauty in the spring are most exasperating, and demand some form of protection. Netting over the flowers is out of the question. A liberal use of black cotton fixed just over the flowers is protective to a moderate degree, but even that birds in time become accustomed to. Ultimately there seems to be no other course open, if the flowers are to be saved, than to destroy the depredators. That is a course which few care to take, but if they want flowers shooting is inevitable. Poison the sparrows they may not, but shoot them they may. Much also may be done to reduce their numbers by destroying their nests and continuing to do so as fast as eggs are laid. Many may be netted at night where the birds roost in Ivy on walls or in thick hedges or evergreen shrubs. These courses may seem objectionable, but they leave no other alternative.—A. D. [We have found that black cotton or netting is sufficient protection. Wholesale destruction of bird life is to be deplored.—Ep.]

**A school of horticulture in Nova Scotia.**—Mr. Sears, director of this school of horticulture, sends a report of its progress. This has been excellent. In looking through the report we notice an interesting reference to the importance in Nova Scotia of Apple trees from England. On page 6 it is mentioned: "We have added quite largely to our plantings in the experimental orchard, as will be seen by comparing the lists of the different fruits given below with similar lists in my report for last year. Another large consignment of trees was ordered from England for the reasons given last year—namely, that English varieties seem more likely to succeed in our maritime climate, and if successful should prove more valuable for shipment to the English market, since they would be already known there." There is a commendable desire to restrict the number of varieties by growing large collections to find out the most suitable. This was the object of the Apple Conference at Chiswick in the time of the late Mr. A. F. Barron, and a good work was accomplished in drawing attention to the evil of very large collections of varieties, many of which differ from one another in name only.

**Lecture at Edinburgh Royal Botanic Gardens.**—On the evening of Tuesday, the 22nd ult., an interesting and suggestive lecture was delivered in the lecture hall of the Royal Botanic Gardens, Edinburgh, by Professor Bretland Palmer, Examiner in Botany to Edinburgh University. His subject was "The Biological Significance of Malignant Growths," one which is at present attracting a large amount of attention from the light thrown upon such diseases by the researches of Professor Farmer and Mr. J. E. S. Moore, with whom he has been collaborating. The lecture was a lucid exposition of their discoveries, which, as is known to readers of modern scientific literature, were largely founded upon observations made with plants and animals, and show the resemblance between reproductive cells and those which take the form of malignant growths in the higher organisms. One lesson in particular pressed home by Professor Farmer was that it was necessary for those who had to deal with disease in its various forms to have a proper training in organic life, as shown in the plants and lower animals. Professor Bayley-Balfour, in appreciative terms, moved a vote of thanks, which was heartily accorded.

**Fruit prospects.**—In our garden most fruit trees are thickly set with blossom-buds, especially where the trees are somewhat aged and have not recently made much growth. Some bush Apples and Pears are a mass of blossom-buds. Pears on walls are very full; Jargonelle on a south wall will be in bloom the first week in April. Plums, both on walls and in the open, give promise of a fine crop. Although Apricots suffered so much from frost, they are blooming abundantly. Our trees are sheltered by a glass coping, with curtains hung in front and rolled up each morning. Shrubs promise to bloom well also, this no doubt arising from their having had plenty of water when making growth. Most cultivators will be anxious to see what the fruit crop will be. Seeing that we have had two cold, wet, sunless summers, if a crop depends on a dry autumn to ripen the wood then the outlook is a poor one. It may be that we over-estimate the value of this.—J. CROOK, *Forde Abbey, Chard.*

**Royal Caledonian Horticultural Society.**—The following letter from Lord Balfour of Burrell, president of this society, has been circulated:

"Kennet, Alloa, March, 1904.

"Sir,—As president of the Royal Caledonian Horticultural Society, I desire to make an appeal to all the members to increase their efforts on its behalf. In view of the arrangement for our great international show in the autumn of next year, the present time seems an appropriate one to call special attention to the condition and work of our society. Since I accepted the office of president three years ago the committee have been doing all in their power to increase the membership and to improve the position of our national society, and after deducting losses by death and by a few

resignations, the increase has been 256; 137 in 1902, and 119 last year. In 1903 we were able to increase our funds by £212, without in any way curtailing either the scope of our shows or reducing the money value of the prizes offered. I think the committee and the secretary, whose self-denying efforts and work on our behalf are worthy of special notice, have done their part, and I am sure I shall not appeal in vain to the members to take their turn and do all in their power still further to extend alike the membership of the society and its usefulness to the country at large. Our last international show was held in 1891. Next year we are preparing for a larger and more important gathering. We aim at offering £1,500 in prizes, nearly £500 of which is already promised, and the King has given a silver cup, which will be offered as a champion prize in the competitive fruit classes. A committee, representative of the various horticultural interests throughout the country, and with representatives from the Continent, has been formed to co-operate with the council in carrying out the international show, and the scientific side of horticulture will be provided for in a manner which should bring together exhibits of great variety and interest. In view of the increasing prosperity of the society and this international show we ought to have during this and next year a very considerable increase of membership. The preliminary prize list setting out the principal classes and competitions accompanies this letter. It will give a good idea of the character of the show we have in view, and I appeal with confidence to the enterprise and patriotism of my fellow members to aid our efforts and to secure success. If everyone will but do a little that success is certain, and the result will be a lasting prosperity to the society, and much benefit to the horticultural interests of Scotland.—I am, faithfully yours,

BALFOUR OF BURRELL."

#### THORNS AND PETALS.

WHETHER she smiles or frowns on me  
My love a Rose will ever be.  
When she smiles, "The hundred-petalled  
Flower" I call her; so that's settled.  
When she storms and rages madly,  
"Hundred-thorned one," breathe I sadly.  
Ever my love a Rose will be  
Whether she smiles or frowns on me.

SYDNEY HESSELKROGE.

—(From the German of Rückert.)

**Opening of Dundee flower and fruit market.**—The opening of the Craig Street Market, Dundee, for flowers, vegetables, and fruits, took place on the 25th ult. in the presence of a large attendance. The opening ceremony was performed by Councillor Perrie, chairman of the markets committee of the Town Council, who gave an interesting account of the origin of the movement which led to the council converting the market into one for the sale of horticultural produce. As Councillor Perrie explained, it was due to a letter from Messrs. Storrie and Storrie that the subject was taken up and eventually carried to a satisfactory conclusion. Councillor Perrie was heartily thanked for his address on the call of Mr. D. Storrie, who said that if the public would do their part the florists would do theirs, so as to make the market one not readily matched in any Scottish town. Business was then proceeded with, and there is every appearance that the market will be taken advantage of. At present the market will be open on Fridays and Saturdays, but in the fruit season it will be open on Tuesdays also.

**Nelson Street Schools Flower Show.**—The third show of spring flowers grown by the children attending Nelson Street Board Schools was held on the 30th ult., when there was an exceptionally large display of excellent blooms. The children were given bulbs in the autumn, and had to grow them at home. The flowers were staged in the schoolroom, where the children and a number of their parents gathered to inspect them and to take part in the distribution of prizes. Mr. W. Field, vice-president of the East Anglian Horticultural Society, judged the flowers and

awarded the prizes. Mr. Field, in reporting on the competition, said he had been agreeably surprised at the excellent results obtained. After the very dull and wet weather he had expected a very poor show, and he was surprised to see so many beautiful flowers. He thought all had done extremely well. There were more exhibits by twenty than on any previous occasion, and they were better than they had ever been. They were all so good that if he could afford it he would give almost every child a consolation prize.

**Blue Primroses.**—I have noticed this year how much better the blue Primroses grow and how much more freely they flower when grown in a cold greenhouse than when grown in the open. A month or two ago I lifted a clump that was growing out of doors, divided it into three rather small plants, and put them in a round seed pan. They are now a mass of blue flowers. Upon counting these I found that there were over fifty on the three plants and numerous buds besides.—MISS A. SMALLPEICE, *Cross Lanes, Guildford.*

**Cyclamen at Hatfield.**—Rarely have we seen a finer display made by Cyclamen than we were recently shown in the gardens at Hatfield House. The plants were arranged in a span-roofed greenhouse, and in a different manner to that usually adopted. The house was full of them and all were on the same level; the large central and smaller side stages were a mass of colour, for the plants were finely bloomed and the colours good and distinct. What added so much to the effect of the display were *Grevilleas*, *Dracenas*, and a few other plants with elegant foliage, which were freely interspersed. One often sees somewhat similar small displays of Cyclamen, but a whole house devoted to them is rarely met with. Probably in many gardens it is not thought worth while to devote a house to Cyclamen alone, but it seems to me that such a display as Mr. Norman has at Hatfield is much more effective than a small group of miscellaneous plants. A bold arrangement of one kind of plant invariably produces a more striking display than a mixed group. In the outdoor garden this plan is now generally recognised and acted upon, and I think if the practice were to be extended to indoor gardening the appearance of conservatory and stove interiors would considerably benefit.—A. H. P.

**Eucalyptus globulus.**—This plant or tree is sufficiently rarely met with out of doors in the Midland and South Midland counties to make it worth while to record any good specimen. There is a tree of this *Eucalyptus* in the gardens at Hatfield House, Hertfordshire, finer than I remember to have seen outdoors north of the Thames. Although I have not the actual measurements, the tree, which is growing in a fairly exposed position, must be some 25 feet high. It has been out of doors for some years now, and appears to be none the worse for having weathered several winters. The pretty blue-grey foliage of this tree and the whitish bark of the stem make it quite distinct from any other tree or shrub, and where it can be established it is well worth culture. Mr. Norman has given it no special treatment; although it is to some extent protected by surrounding trees, the position in which it is planted cannot be said to be a sheltered one. *Ceanothus veitchianus* is another shrub that Mr. Norman thinks highly of. It is growing against a high wall, and has now climbed to the top. *C. veitchianus* has been described as one of the loveliest species of the genus, the flowers being of a deep blue, produced in dense clusters at the ends of leafy branches. When in flower in summer *C. veitchianus* is a grand object against a high wall. At Hatfield the wall upon which it is growing, together with numerous other shrubs, makes an admirable background to a large border devoted to herbaceous plants and Roses. *C. veitchianus* also does well when grown in pots under glass. Two points to bear in mind in this connexion are bushy habit and encouragement of flower-buds. These latter are best produced by growing the plants in full sun. During the summer the plants may be plunged in pots out of doors, or they may be planted out and potted in early autumn if wanted to flower in the spring.—A. H. P.

## NOTES ON HARDY PLANTS

## GALANTHUS FOSTERI.

WITH reference to my notes on *Galanthus Fosteri*, which appeared in *THE GARDEN* a short time ago, I have to thank Sir Michael Foster for his courtesy in sending me some blooms of this Snowdrop from his own garden. These flowers were from descendants of the originals, and they were vastly superior to the blooms from plants now being imported and established plants in most gardens. These flowers quite justified the encomiums pronounced upon this Snowdrop by Mr. Max Leichtlin, and it is a matter of regret, as I pointed out in my former notes, that so many inferior forms have come into cultivation, and that the process of selection has not been carried out as it should have been. S. ARNOTT.

## CROCUS RETICULATUS ALBICANS.

THIS rare and beautiful little Crocus is at present in flower, and even amid the wealth of Crocus beauty at this season it is well worthy of a note. It is very small, and almost pure white outside and inside. Although unlike it in outward appearance, it has long been recognised as a form of *Crocus reticulatus*, for it was described by Dean Herbert in the *Botanical Register* in 1841, Misc. 83, and also in the same publication in 1847, when it was figured. Yet it remains exceedingly rare, and is not, so far as I am aware, procurable from the ordinary trade sources. It appears to be very slow of increase, for I see from my plant record book that it came to me in March, 1900. At that time, through the kindness of another Crocus lover, I received one corm, and now four years after there is still only one plant. It will probably multiply faster on some soils.

*Carsethorn, by Dumfries, N.B.* S. ARNOTT.

## SAXIFRAGA LILACINA.

THE illustration represents the pretty new species of Saxifrage (*S. lilacina*) which is now in flower in the Alpine House at Kew. It is described by Mr. Irving on page 218 of *THE GARDEN* of the 26th ult.

## IRIS TINGITANA.

IN most gardens this beautiful Iris has proved very difficult to flower. Here we have grown it for several years with indifferent success. I grew it in rather poor sandy soil (this with the idea of getting the bulbs well ripened), in which it did

well and increased rapidly, but only produced a few stray flowers. After the foliage died down the bulbs were lifted and stored until replanted during September and October. Last season they were planted in a bed of rich loam and well-rotted manure, in which they made splendid growth. Now this season we are rewarded by nearly every bulb showing flower. Of course, this is only the result of one season; but everything seems to point to the fact that they require to be very well grown and have a long period of rest. They are growing at the bottom of a south wall.

*Killerton Gardens, Exeter.* J. COUTTS.

## IRIS HAYNEL.

A NEW and very beautiful species from Palestine. It is closely allied to *I. atro-fusca* and *I. sofarana*, both of which are from Palestine, and in the matter of cultivation it is likely to prove more easily managed than most of the *Onocycylus* group, the root-stocks being exceptionally large. It produces tufts of glaucous green sub-falcate leaves 18 inches high, stems 1 foot to 2 feet high, bearing a magnificent flower each, the predominating colours being purple-grey suffused with royal purple. The standards are 2½ inches wide and 3½ inches long, purple-grey and dotted deeper purple; the falls are nearly equal in size, coloured deep brown, and furnished with a large black patch, whilst the styles are suffused ruddy bronze and purple. The whole flower is "shot" with a lustrous, satiny sheen, which intensifies and diminishes according to the degree of light. Collected plants are flowering freely under protection, and colonies in the open are exceptionally strong, rivalling *I. sofarana magnifica* and *I. lupina robusta* in growth. Whether this beautiful species will stay with us longer than its fellows have done is a matter of doubt, but a few hot dry seasons will do more towards helping the cultivation of *Onocycylus* Irises than all the lime in the universe. G. B. MALLETT.

## PRIMULA MEGASEFOLIA VAR. SUPERBA.

SINCE *P. megasefolia* (Boissier) was introduced from Pontus, Asia Minor, a few years ago, much doubt has been expressed as to its value as a garden plant, and the number of weedy forms or ill-cultivated specimens that one sees in various places suggests that the plant is more variable than one considered possible, or that its cultivation is imperfectly understood. Doubtless the haste to propagate a new plant is responsible for the poor forms one sees to-day, and the introduction to heat in order to induce growth is now regarded as a great mistake. Nothing ruins this plant so quickly as greenhouse treatment. All the *Primulas* are rich in variations, and this species is no exception to the rest, in that two forms, both differing from the type in excellent floral characters, have been selected among seedlings, and for one of these the above name has been chosen. In colouring it is a great improvement. The blue which formed the basis of the purple of the type has been eliminated and a clear deep reddish mauve is left. The colouring of the eye has resolved itself into an orange star, very clearly defined and rich, and the white surroundings are in the form of a perfectly regular margin without ramifications into the general colouring. The flowers are 1½ inches across, gene-

rally six to ten on each stem, and their long pedicels give the inflorescences a drooping habit that adds greatly to their charm. Moreover, the stems average 1 foot in height and are unusually vigorous, in some cases carrying flowers in two whorls. As a garden plant this variety is a great advance on the type, and one hopes that other forms now in process of development may lead the way to a wealth of variety, as in *P. Sieboldi* and *P. Auricula*. In *P. megasefolia* there is a tendency to defer flowering till a more suitable season. Old-established plants that flowered in December two seasons ago have, as they gained strength, bloomed in January, and in cases where the first lot of spikes were cut down a second batch are now pushing up (March 25) and beginning to expand. There is no doubt that *P. megasefolia* will become a popular and useful garden plant. Heat it dislikes. G. B. MALLETT.

## THE ROSE GARDEN.

## ROSE ARCHES AND THEIR MANAGEMENT.

WITH SPECIAL REFERENCE TO LIGHT SOILS.

ONE of the most popular forms of Rose culture at the present day is the above, and, although the subject has often been ventilated in *THE GARDEN*, I am induced to bring it forward again by reason of the many unsatisfactory results which are constantly met with. Climbing Roses are, in my opinion, the most difficult of the whole race to keep in thorough health, and unless considerable skill is employed in their management they are best left entirely alone. The causes which usually lead to failure are numerous, but they may be summarised under two main headings—poverty of soil and inconsiderate pruning and training.

## POVERTY OF SOIL.

Undoubtedly this is the greatest cause of failure. Those rosarians who have an ideal Rose soil, and a good depth of it into the bargain, are to be envied, but my experience is that numbers of them are in a like position to myself, and have to make the best of a shallow and poverty-stricken soil. All my Rose growing has had to be done on a soil which is wholly unsuited for the purpose—being dry, sandy, and gravelly—so that I can at least lay claim to a knowledge of how it should be prepared for planting. In spite of the fact that they are surface rooters, Roses of all kinds require a good depth of soil, and in the case of climbers which may have to stand for ten or twenty years in the same position, we not only have to make provision for their immediate wants, but maintain them in health and vigour in after years. Success or failure, therefore, absolutely depend upon careful preparation of the root-run, as no amount of pruning or subsequent attention will compensate for any neglect in this direction at the commencement.

## HOW TO IMPROVE IT.

Bearing this in mind, we must start by getting out a good hole for each plant—not less than 3 feet wide by 3 feet deep—and if the whole of the natural soil is poor it will have to be replaced by good loam and manure. This may be regarded as rather an undertaking, but my contention is that it pays to expend almost as much care in preparing stations for climbing Roses as in the making of a Vine border. It is true that these Roses do not have the strain imposed upon them of producing large exhibition flowers, but against this we must set the fact that their energies are expended on making a large amount of strong growth each year in addition to their masses of blossom. Generally speaking, if we fail to get some good, strong, healthy shoots from the base of each plant, the arches soon become bare, patchy, and flowerless; although, of course, however carefully the ground is prepared, some varieties cannot be induced to do so. With Roses of the multiflora and wichuraiana sections, such, for instance, as *Aglai*a and *Dorothy*



THE NEW SAXIFRAGA LILACINA IN THE HARDY PLANT HOUSE AT KEW.



HARDY CYCLAMENS IN MARCH, SHOWING THE PLACE THE PLANTS ARE MOST HAPPY IN.

Perkins, it is impossible to maintain them in health unless fresh basal shoot growth is made each year, and it is also well to remember that in dealing with the preparation of stations for such rampant varieties their roots are bound to extend in proportion to their top growth, and should on no account, therefore, be cramped for room. In advising, then, that the minimum hole to be got out for each plant should be 3 feet by 3 feet, I do not think I have overstepped the mark, and, indeed, in my own garden I have long ago proved that any less space only results in suppressing growth.

Those of us who have to deal with a poor, shallow, light soil know how extremely important it is to secure a

#### GOOD DEPTH

of moisture-holding soil for our plants, and, although during the past two seasons the importance of this has not been so apparent, yet many of us will not have forgotten how very stunted was the growth of climbing Roses on dry soils during the very hot summers of a few years ago. Books on Rose culture are extremely numerous, and most of them have one fault, *i.e.*, they take it for granted the reader is in a district where the indigenous soil is a loam or clay. Thus it follows that strict injunctions are given as to the necessity of providing good drainage. Well, in dealing with a porous soil we have to proceed in a diametrically opposite direction, and instead of encouraging the rapid descent of water, we have to do all we can to avoid it. It will be asked, How is this best accomplished? And in reply I cannot do better than outline the plan which I have followed for some considerable time. Supposing that we have marked out the positions for our plants, the first thing to do is to remove the best of the top soil and put it on one side. Then the entire sub-soil to the depth already mentioned should be taken away. Bearing in mind that our main object is

#### PRESERVATION OF MOISTURE,

we must commence by placing a layer of stiff loam or clay, 9 inches to 1 foot in depth, all over the bottom of the hole. (Of course, before going any further I might as well say that Rose growing on a thin and poor sandy soil, such as is found in this and many other localities, is rather a hopeless operation unless clay or loam of some kind can be procured. Where such is the case money is far better spent in this than in purchasing manure, and though I very frequently come across people who grudge laying out money in soil, yet after doing so they have never regretted it.) The remainder of the hole should be filled up with a

mixture of good top spit loam from a pasture and the best of the natural soil which was put aside. If some well-rotted cow manure and some bone-meal are incorporated with this natural soil previous to mixing it with the loam, an almost ideal Rose soil will be the result, and some time will elapse before it is found necessary to apply any other than liquid manure to the plants. By such thorough preparation of the ground and affording the plants a liberal root-run to begin with, success is assured, because not only does this cause them to grow away and cover the arch almost in a season, but it also saves a great amount of trouble in their after management.

Kidderminster.

A. R. GOODWIN.

(To be continued.)

### ROSE SHOW FIXTURES FOR 1904.

- June 15 (Wednesday).—York. †  
 „ 27 (Monday).—Isle of Wight (Ryde).  
 „ 29 (Wednesday).—Chippenham and Farningham.  
 „ 30 (Thursday).—Canterbury and Colchester.  
 July 2 (Saturday).—Sutton (Surrey).  
 „ 6 (Wednesday).—Temple Gardens (N. R. S.), Croydon, Ealing, Ipswich, and Southampton.\*  
 „ 7 (Thursday).—Chipping Norton, Norwich, and Walton-on-Thames.  
 „ 8 (Friday).—Brockham.  
 „ 9 (Saturday).—Warminster and Windsor.  
 „ 12 (Tuesday).—Wolverhampton. †  
 „ 13 (Wednesday).—Formby, Reading, Thornorton Heath, and Stevenage.  
 „ 14 (Thursday).—Bath, Eltham, Helensburgh, and Woodbridge.  
 „ 15 (Friday).—Gresford and Ulverston.  
 „ 19 (Tuesday).—Saltaire and Tibshelf.  
 „ 21 (Thursday).—Halifax.  
 „ 27 (Wednesday).—Cardiff\* and Newcastle-on-Tyne. †  
 Aug. 13 (Saturday).—Sheffield.  
 Sept. 20 (Tuesday).—Royal Horticultural Hall, Westminster (N. R. S.).

\* Shows lasting two days. † Lasting three days.

The above are the only dates of Rose shows, or of other horticultural exhibitions where Roses form a leading feature, definitely fixed, that have yet reached me. I shall be glad to receive notice of any other Rose show fixtures for publication in the next list, which will appear early in May.

EDWARD MAWLEY.

Rosebank, Berkhamsted, Herts.

## CORRECT PLANTING IN THE FLOWER GARDEN.—II.

**H**ARDY CYCLAMENS.—  
 These are fortunately easy to grow, and flourish alike in border and turf, my object in mentioning them being chiefly to point out

that they simply revel in shady places in leaf-mould to which a liberal proportion of old lime rubbish has been added. This “tip” I obtained from a good friend and gardening neighbour, Mr. Charles E. Fletcher. When planting them in turf under trees it is desirable to incorporate something of a calcareous nature with the soil; the healthy foliage and brilliant flowers resulting from this process are well worth the slight extra trouble. Can anything be more beautiful or more truly welcome than a successful group of the *Coum*, or *Atkinsi*, species in late winter and early spring, when the garden is a dreary expanse of brown earth, withered stems, and sombre evergreens, and the morning tour of inspection becomes a melancholy and depressing duty? How carefully one leaves the Cyclamen corner as a *bonne bouche* to the last, and how suddenly sweet are the whiffs of the after-breakfast pipe at that much-loved spot! I have just been to have another look at it, and shall soon go again, for it is a joy, not for ever, but for many weeks at this time of year.

My hardy Cyclamens are nearly all in one small area under the light shade of evergreen trees, growing on low mounds of nearly pure leaf-mould and old mortar, and there is always one species, sometimes more, in bloom, while the delicately-marbled leaves are alone, to my mind, worth any amount of careful cultivation.

The nomenclature of the whole group is decidedly puzzling, so I will not attempt to give my own ideas on the subject, and thereby “make confusion worse confounded,” but I will say that all the species are without exception delightful, and well repay the slight amount of trouble necessary for their successful growth.

Some of the corms apparently root from the under side only, others from the top as well, so that some discrimination would seem necessary in adjusting them at their proper depth in the soil. But I have invariably put all mine in about 2 inches below the surface, and they have done fairly well. In the light leaf-mould mixture in which I grow them it is more than likely that each corm soon settles itself at its own particular level.

I may add that when the north-east winds are more than usually vindictive I put in a few bushy Yew or Fir boughs to form what we term in Kent a “lew” or “loo,” and in the autumn I give the whole group a light covering of the “mixture as before”; but the genus is, thank goodness, truly hardy, perhaps with the exception of the greenhouse species *Persicum*, and that I hope all Cyclamen lovers will eventually proceed to try out of doors in the British Islands. It has proved a success already, though I cannot call to mind where, and I am certainly going to experiment with it. Fancy a group of those glorious crimson and snowy-white indoor Cyclamens in a shady border! It is worth the trial, at any rate, though in the favoured climate of the south of Europe the foliage is apparently apt to flop about and become rather untidy.

## CALOCHORTUS.

My experience of these beautiful flowers is limited to the *Venustus*, or *Mariposa Lily*, group, and as I have already sent a photograph and a brief description of my bed to THE GARDEN, I fear I am only once more repeating myself. Still, I trust a few remarks may be of use. The *Venustus* section is probably the easiest to grow and certainly one of the most lovely. My bulbs were planted many years ago in a slightly raised border, sloping to the south-west, composed of loam, peat, leaf-mould, and sand, and they have never yet failed to bloom satisfactorily.

Even now, after the adversely sunless and wet weather of 1903, and in spite of the fact that they were never covered in any way during the wet autumn and winter, the bed resembles a promising hayfield, and I look forward confidently to another good blaze of colour this summer.

A good light soil, a warm corner, and a decided slope to south or south-west are probably essential; careful weeding and the addition of some light top-dressing, such as peat and fine ashes, in November are also necessary.

In heavy soils it would doubtless be desirable to ensure perfect drainage by cutting a moderately deep trench round the bed, which could be neatly filled up for the sake of appearance with large and small stones lightly covered with ashes or leaf-mould. The bulbs should be planted in August, certainly not later than September, 3 inches deep. Seedlings come up all over my bed, but I leave them to themselves, and find that they work their way down to their proper level without any assistance—at least, I presume they do so from the way in which they grow and flower.

## OURISIA COCCINEA.

The instructions given in the best gardening books for growing this plant differ considerably as to the proper aspect, soil, drainage, &c., to be selected, consequently a few notes on a flourishing specimen from its first start may be useful.

Some years ago I put a small root into a shallow bed of gritty peat resting on a very stiff loamy subsoil in the lowest part of a small rockery. It was well tucked in against the edging of Kentish "rag" stones (limestone) and soon began to grow away, till last summer it covered a space about 2 feet square and sent up twenty-eight flower-spikes. Just now, of course, it looks a bit unkempt and sorry for itself, like many other plants in our gardens, but new growths are pushing outwards, and there is abundant promise of healthy foliage, and, I hope, flowers later on. No protection or fresh soil has ever been given, but the stones are occasionally eased a bit outwards to give it more room.

I give these notes for what they are worth. Perfect drainage is certainly not there, for the heavy clayey loam is barely a foot below the surface, and is always moist and cool. The aspect is south-east and the position fairly sheltered from cutting winds, though exposed to the full power of the sun for the greater part of the day. In dry summer weather a good watering is frequently given, the soil never being allowed to get dust dry.

## PRIMULA ROSEA.

In the peat bed above mentioned and adjacent to the *Ourisia* is a group of this most delightful Himalayan Primrose, or, rather, the form of it known as *grandiflora*.

We are told that it is a most easy plant to grow, and has become quite acclimatised, preferring deep rich loam in a moist, shady part of the rock garden. I have heard wonders

concerning its performances in an Essex garden, where it flourishes luxuriantly and seeds itself freely; it certainly does well in a peaty bog in the Kew rockery, and my friend Mr. Herbert Green has a strong clump among stones at the edge of his rockery pond at Tovil which blooms magnificently from year to year. I do not remember to have seen it growing well elsewhere, and until I took to planting it in wet gritty peat in full sunshine I failed miserably with it myself. It is worth any amount of trouble, however, instructive failures making one more and more determined to grow it. All I can vouch for is that it loves moisture and does not object to sunshine; also that those unspeakable slugs are uncommonly fond of it.

An unsightly palisading of wire gauze and a surface of sharp ashes or cocoanut fibre are at all times indispensable for its protection in my garden. And even when the poor plants have survived to perfect their sweetly pretty flowers some evil beast, doubtless the long-tailed red mouse, will often wantonly bite through the stems and leave the blooms to wither untouched on the ground. For such an act of vandalism no mouse-trap can be sufficient punishment.

## CHRISTMAS ROSES.

Though not difficult to grow, the various forms of *Helleborus niger* are not always to be found in a flourishing condition in gardens or planted in the most suitable soil and situation, and I therefore venture to say a few words on these matters.

The finest specimens I ever saw years ago were growing in huge glazed earthenware drain-pipes set up on end at the cottage of a man in charge of some extensive waterworks, and I often wondered subsequently why they did so well in such a peculiar situation. Now that I have tried, and failed at first, to grow them myself, I know the reason, and it is expressed in one single word, "drainage." Two other words will complete the magic spell and ensure success, and they are "soil" and "shade"—the soil to be good, rich, and not too heavy, and the shade what is termed partial, not necessarily dense.

Of course, I am but giving a very simple prescription, and one which doubtless has often been tried and found successful. In my own case the result of moving all my plants—some half-dozen varieties—to the north-west side of an Ivy-covered fence into quite 3 feet of good light mixed soil resting on a thick layer of brick rubbish, is that I never had such foliage or such an amount of bloom before, and I notice a steady improvement each succeeding winter.

Yalding.

S. G. R.

(To be continued.)

## THE ALLIUMS.

(Continued from page 235.)

**A**LLIUM NARCISSIFLORUM. — One of the most beautiful of the present family, and also known in gardens under the name of *A. pedemontanum*. Some authorities consider that the two names represent distinct species, one form, with slightly two-edged scapes, being found in the Piedmont, and the other, stated to have a rounded scape, coming from Northern Italy. All that I have seen in cultivation have scapes with edges. Belonging to the large group of species in which the annual bulbs arise from a creeping perennial root, it prefers a loamy, calcareous soil, as it is generally found on limestone mountains. The leaves are flat, glaucous, and somewhat fleshy, and the rich

rose-purple flowers are bell-shaped, and borne in pendulous bunches on stems about a foot high. To see this plant to the best advantage, it should be planted rather high up in the rock garden, so that one can look up into the flowers and catch the full beauty of the rich colouring. Introduced in 1817. *Botanical Magazine*, t. 6182.

*A. neapolitanum*. — A handsome and fragrant species, native of the South of Europe, and introduced into this country in 1823. It is rather tender and requires a warm position in light soil, where it will increase freely by means of offsets. The leaves are produced two to three to a bulb, are channelled on the upper side and keeled beneath, with a glossy green surface. The scapes are three-sided, longer than the leaves, and bear a many-flowered umbel of slightly-nodding white flowers. These have a distinct nerve down the centre of each segment, and are borne on long, loosely-spreading pedicels. Flowering in the open in early summer, this pretty species is also grown in pots for furnishing the greenhouse.

*A. nigrum*. — A very old inhabitant of our gardens, this has been cultivated since the days of Gerard. With little or no scent, the leaves are 6 inches to 12 inches long by 1 inch to 2 inches broad. The scapes are stout, 1 foot to 3 feet high, with large umbels of flowers. These are white, with a purple or green tinge on the outside of the perianth. It is a native of the Mediterranean region, and known as *A. magicum*, under which name it is figured in the *Botanical Magazine*, t. 1148.

*A. neanum*. — A species from Asia Minor, with thin leaves 12 inches long and 1 inch broad. The scapes are shorter than the leaves, and bear a many-flowered umbel of rose-coloured, rarely white flowers on long pedicels. Introduced in 1896.

*A. odorum*. — Common in most parts of Siberia, the flowers of this plant are sweet-scented, although the other parts, when bruised, have the characteristic unpleasant smell. Introduced in 1787, the flowers are greenish white with a reddish keel. *Botanical Magazine*, t. 1142.

*A. oleraceum*. — A native of this country, the Field Garlic is generally found in dry, grassy places and on the borders of fields. The umbels are few-flowered, with numerous bulbils. The flowers are pale olive streaked with red.

*A. oreophilum*. — This comes from the Caucasus, and is closely allied to *A. ostrowskianum*, but dwarfer, with darker-coloured flowers. Introduced in 1873.

*A. orientale*. — One of the prettiest Alliums, and nearly allied to *A. nigrum*, but dwarfer, with a compact umbel of large, fragrant, white flowers keeled with green. The ovary being black and the filaments of the stamens having a stain of bright claret-purple at their base, the flowers appear to have a distinct eye. The leaves are broadly linear, 6 inches to 9 inches long, three to four to a bulb. A native of Asia Minor and Syria, it is figured as *A. Erdelii* in the *Botanical Magazine*, t. 6426.

*A. ostrowskianum*. — This fine species was discovered in Western Turkestan by Mr. Fetisow, and introduced into this country in 1883. Dwarf, with generally two leaves over a foot long produced to each bulb, the scapes are slender, rather more than half as long as the leaves, and bear umbels  $3\frac{1}{2}$  inches in diameter. The flowers are cup-shaped and bright rose-red in colour. A most desirable species, and well worth a place in a limited collection. *Botanical Magazine*, t. 7756.

W. IRVING.

(To be continued.)



## THE FLOWER GARDEN.

### HARDY AND ANNUAL FLOWERS FOR DRY GROUND.

IT seems rather out of place to speak of dry ground after the wet we had last year, but we do not as yet know what the coming summer may be like, so perhaps a word on the few herbaceous plants I have found do well with me may not be amiss, though perhaps a little late. My borders are on a hillside facing south-east, with a light and very porous sandy soil, which is, however, 3 feet or more deep, and resting on red sand and gravel. It is, in fact, a regular sieve, through which the water runs as fast as it falls. There is no facility for watering, except for a few special things, and even these have sometimes to go without, as I cannot always spare the time to attend to them. At one time I was under the impression that deep-rooting plants would be the best to use, but many surface-rooting subjects also do well. Certain Roses are fairly good, mostly of the older and sturdier sorts, such as Gloire de Dijon, Boule de Nègre, Baroness Rothschild, La France, Senateur Vaisse, and John Hopper. This year I am trying Conrad F. Meyer, Caroline Testout, Grace Darling, Duke of Connaught, Gloire Lyonnaise, and Crimson Rambler. In planting these I have put a good layer of well-rotted manure well below them, and a little on the top clear of the roots. There is no fear of them getting down into poor soil, as there is a good depth of mould, such as it is.

Alyssum saxatile, Iberis sempervirens, and Arabis alpina all thrive well, forming large clumps 3 feet to 6 feet in diameter. After they have gone out of flower each year I trim them all over with a pair of shears, which seems to make them grow stronger than ever. I have two Phloxes, Mont Blanc and Boule de Feu, which, with Coreopsis grandiflora, Pyrethrums, and Antirrhinums, I replant annually, or at the most biennially. I find the Coreopsis and Antirrhinums do best when treated as biennials, as they do not last more than two years in this light soil to be satisfactory. By replanting the Phloxes rather deeply in the autumn I find they stand the drought better. Delphiniums I am trying this year for the first time, chiefly because I have been told they will not do. I suppose I shall find out my mistake. Lychuis coronaria looks very shabby in hot weather, but quickly recovers after a rain. This is best as a biennial. L. Viscaria florepleno grows well, but the colour clashes so with nearly everything else that I have discarded it. Erigeron speciosus only grows about 1 foot high with me, but flowers freely and looks healthy, so that it is quite a valuable plant for dry soils. Spiræa filipendula and its double form are veritable weeds, growing very freely, and, if they are moved, leaving a whole colony of young plants behind them. Wallflowers are a failure, as they club worse than Cabbages. I have tried them in various ways, but the only place where they will live is at the foot of a Yew hedge, probably the hottest and driest part of the garden. Carnations and Dianthus get burnt up in a week of hot weather, except forms of D. plumarius, which grow rapidly, and seem to enjoy bright sunshine. Solidago multibracteata and Chrysanthemum uliginosum both do well, but the former is very fleeting in hot weather. This is a pity, as it is very beautiful when at its best. The best annual I find is Lupinus Cruikshankii, which grows nearly 5 feet high in a season, and bears its blue

and white flowers from June till cut off by frost. The colour, too, blends with practically everything else that is in flower at the same time. I find a few seeds of this invaluable for filling up gaps where something has died and it is getting too late to plant afresh. The only other annuals I use are Mignonette, Tropæolum Tom Thumb, and Nemophila insignis. Seed of the latter is sown in autumn.

Bagshot, Surrey.

J. CLARK.

### THE ANNUAL THUNBERGIAS.

THOUGH the Thunbergias come under the heading of tender annuals, they are capable of being used with effect in the outdoor garden in summer. Thunbergia is a large genus comprising both annuals and perennials, but those to be dealt with are the varieties of *T. alata*, the winged

April in warmth, and when the seedlings are large enough to handle be placed singly in pots or two or three in baskets, as used in this way they are very effective. They should be grown liberally and vigorously in a compost made up of good loam two parts, well-decomposed manure and leaf-soil one part, with some sand. The plants should be grown on vigorously in bottom-heat when young, and then be gradually hardened off for the summer outdoor service required of them. In all stages generous culture is requisite; to starve the plants is to court failure.

When in a country district on the confines of Middlesex last summer I noticed in a well-kept garden of a country inn several pots of different varieties of Thunbergias on wire plant stages, and was gratified to find how well they were doing, but it was because the host made special favourites of them and gave them the best attention, not forgetting to give them occasional doses of weak liquid manure, which had the effect of maintaining a bold and healthy foliage and keeping in check red spider; this is apt to affect the plants when grown in the dry atmosphere of a greenhouse, and especially so when not looked after in the matter of watering.

A most effective method of growing the Thunbergia in the open border is to place three plants in a slightly raised mound of rich soil, and put around them a few sprays of Hazel, forming a fence 18 inches in height. As soon as the plants are well established they grow freely, they fill up the centre, and the shoots trailing over the sides, form mounds of foliage, followed by flowers that appear at all points under bright sunshine. Under such circumstances red spider troubles them but very little, and there is a succession of bloom until the cold, damp weather causes the decay of the plants. There is need for a revival of interest in the Thunbergia.

R. DEAN.



STONE STEPS IN A JAPANESE GARDEN.

Thunbergia, a native of South Africa. They form a group of annual twiners, blooming freely and continuously in summer. The type *T. alata* has buff-coloured, roundish blossoms, with a dark disc in the centre; its variety *alba* is white, but also with the dark disc; *aurantiaca* is wholly orange; *Bakeri*, pure white; *Fryeri*, pure buff; and *Doddsii* is pale orange, sometimes bordered with white, and deep violet centre. All seed freely when they are doing well.

Time was when Thunbergias could be found in almost every greenhouse, the plants trained in some form or used as an edging to other plants, the shoots hanging down and producing abundant blossoms. They have come to be used more in the open garden than formerly, either as plants in pots or planted out. Seeds may be sown in March and

should so rejoice in recalling the sovereignty of death. A withered tree, a blasted rock, a tangle of dry leaf and cobweb, or sundered branch is fair to them, not only because of what we should call its artistic value, but because of a tender symbolism, which, though rarely spoken of, is ever present to their minds. It may be that this gentle familiarity with Nature's unbending laws has taught them to look upon the end of life as a passing and a change, as a healthy plunge back into "God's great course of things," rather than as a terrible temporary sundering of the dying body from the living spirit to which it must be united in the eternal agony or bliss of

### JAPANESE WAYS OF GARDENING.

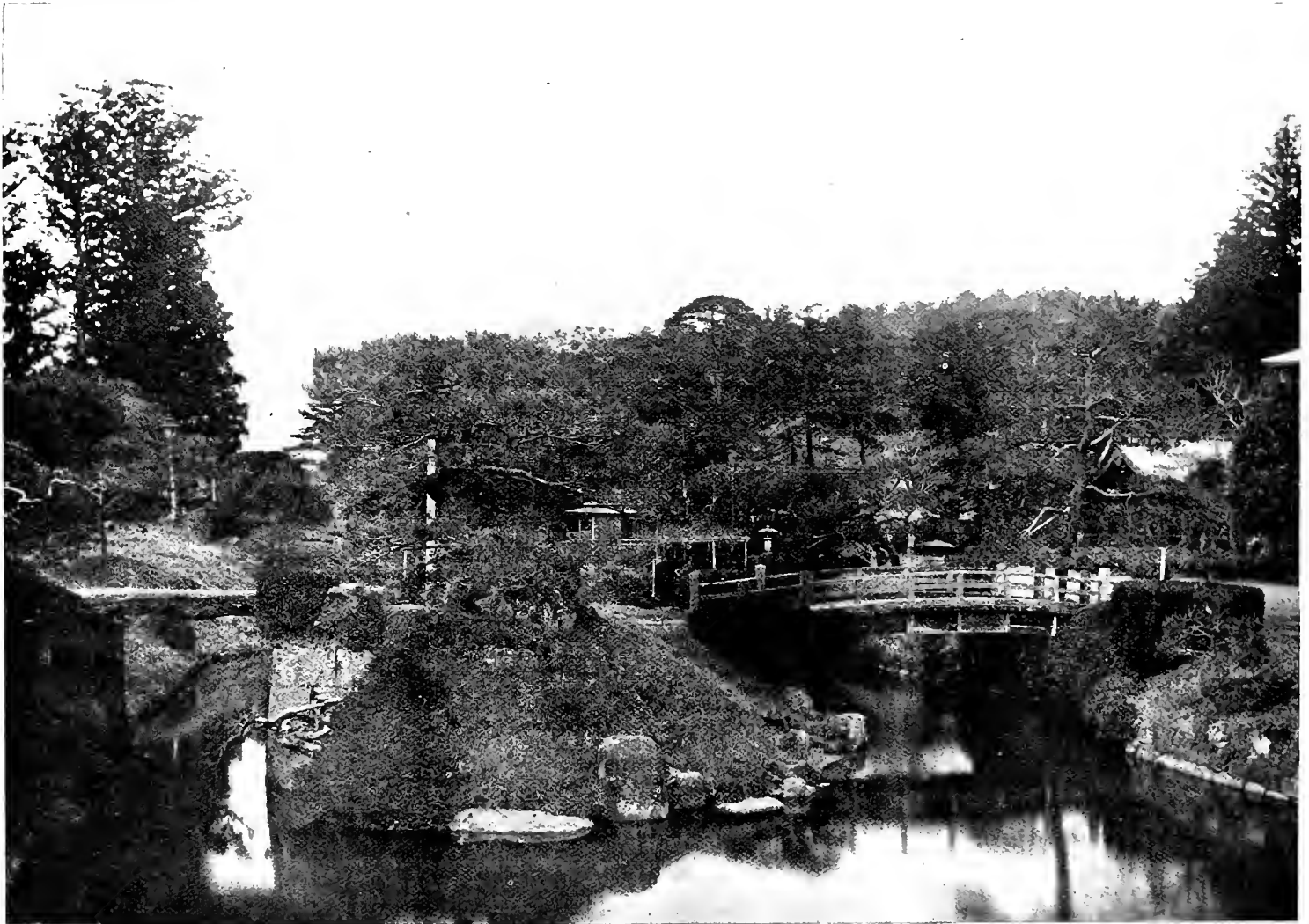
IN observing the Japanese methods of gardening we are almost led to say that to the beauty-lover all things are beautiful, since all can be made to serve the ends of beauty; either by contrast to brighten an undertone, or by mitigation to soften some too positive perfection; to smooth rival splendours by fair degrees to helpful harmonies; or, finally, to lead the mind to the solemn loveliness of life, and death, and life that springs from death. It seems strange that this happy-hearted people, whose gay philosophy has never coined a word for despair,

emphasised individuality which we have trained our Western souls to face.

To the flower-lover of our own country the sight of dead leaves or withered branches is usually a hurt, an offence; all suggestion of death must be as carefully eliminated from the garden as from the verses on a birthday card, or the talk at a smart dinner-table. We remove our plants at the first sign of decay, and replace them by budding flowers which shall speak of life for a week or two, and then be pushed out to make room for still fresher beauties; it is always life, vigour, colour that we cry for—life, and the consummation of the eye's desire or

emptiness in the winter garden; for, while content to stand as background for the summer's play, when the sun sets early in his southing they dominate the clouds of grey twigs, and spaces of brown earth with a resolute tone of verdure, never brilliant (except in the case of the rare and beautiful camphor tree), but deep and warm to look upon, and pleasant in an unchanging encouragement to hope for better things. There is in Japan a garden city, imperial Tokyo. From its stately heart, where the moated Palace stands ringed by miles of splendid pleasure grounds, so forested with rare and venerable trees that hardly a gable

occupations, their handicrafts, even their cares, to go and gaze on the fleeting loveliness; and in the groves and gardens where they gather, every leaf and stone and lakelet has its part to play in the perfect whole. Is the prevailing variety a delicate leaf, flushed like a Rose, fine pointed as a star? Then be sure that behind it a sombre Pine or deep-leaved Camellia will be set to throw out the Maple's incomparable tints, making it look like a sunset cloud against the darkness of a thunderous sky. And where the Maples are to shed their leaves there must be water, smooth and deep perhaps, so that the leaves may float in fairy



MANGANJI GARDEN AT NIKKO, JAPAN.

ever the heart has learned the tender discipline of hope—life, and the instant renewal of the hour to rob us of the chastening sweetness of regret. This passion for expressing from each moment its fullest value is a part of our national temperament and a factor in our success; but we might do well to borrow some measure of the Oriental's calm in our converse with Nature, and sometimes subordinate our activity to her slow and faultless march.

This need not bring desolation in its train, and the Japanese, like wise gardeners of every clime provide some cheer for the wintry hours when all the flowers are underground, and the sap that makes the blossom is at ebb in the fruit tree's root. The bold use of their many hardy evergreens tempers the sense of

lifts its gilded carvings into sight, out and away to the humble brown villages that straggle in from the plain, like dust fringing some royal robe, there is scarcely a house that has not its garden, great or small. Among them it would be hard to find one which has not some individual aspect, one which has not been differentiated from its neighbours by a thought, a subtle touch, a throwback to Nature's inexhaustible variety, or a reaching out to the symbolism which transforms Nature into Religion. In the autumn season innumerable gardens there are flaming with the life and death; fires of the Maple expiring in glory like some triumphant saint. No day passes during autumn in which thousands of people of every class do not lay aside their

fleets of gold and crimson for a day or two longer in the magic autumn prime; or a curtain of spray leaping down from a rock in a dancing net of gold and pearl—a net whose meshes catch the pretty spoils and whirl them away in a mystic maze.

At Oji, the famous Maple garden near Tokyo, the trees have grown so great and strong that one wonders idly how these stately Elders can care to prank themselves in such dazzling guise; yet even in these old gardens, where tree follows tree, and the roots are as big as the trunks, there is no overcrowding—nothing that hurries you with the sense of beauties lost or missed.

It is impossible to imagine any sight more lovely than that of Maple groves reflected in

calm water; and where these can only be seen from the water itself a bridge will tempt you out into mid-stream, where you can hang over a delicate parapet, and watch the level flood as it quivers under the picture of the steep-sided glen, its sunset tints all ruffled by some sudden breeze, and perhaps the sunset sky lending an unearthly radiance to the scene. It is a wonderful experience to take a little boat and pull in and out where the trees hang low over the water, and a floating star of crimson settles on your oar as if dropped by a friendly hand. Nature seems very near in such moments, but the garden artist is the usher who has brought us into her presence.

## TREES AND SHRUBS.

### LOROPETALUM CHINENSE.

**W**ERE it only for its value as a winter-flowering plant for a greenhouse or conservatory this Chinese shrub is well worth cultivating. When grown in 6-inch or 8-inch pots,

as Messrs. James Veitch and Sons have recently exhibited it, a group of this *Loropetalum* makes an admirable display. The plant is of uncommon appearance, for at some little distance it seems to be veiled with clusters of ribbons, the white, thong-shaped petals are very distinct; under cool treatment the plants flower well. It is less effective as a shrub in the open than when grown under glass. *Loropetalum chinense* is not of recent introduction; in 1894 it was given a first class certificate by the Royal Horticultural Society, and it was introduced to cultivation fourteen years previously. Our illustration is from a drawing in Messrs. Veitch's Nursery.

### ERICA ARBOREA.

**T**HE early-flowering *Ericas* should be grown in every garden where peat-loving shrubs thrive, for they flower over a considerable period, and are not injured by slight spring frosts. About London *E. arborea* is the third to bloom, coming after *E. mediterranea* var. *hybrida* and *E. carnea*. It is a native of the Mediterranean region and the Caucasus, and has been long in cultivation, the date of its introduction being given as 1658. Owing to the fact of its being somewhat tender when young it is not met with so often as many other species, but in the warmer parts of the

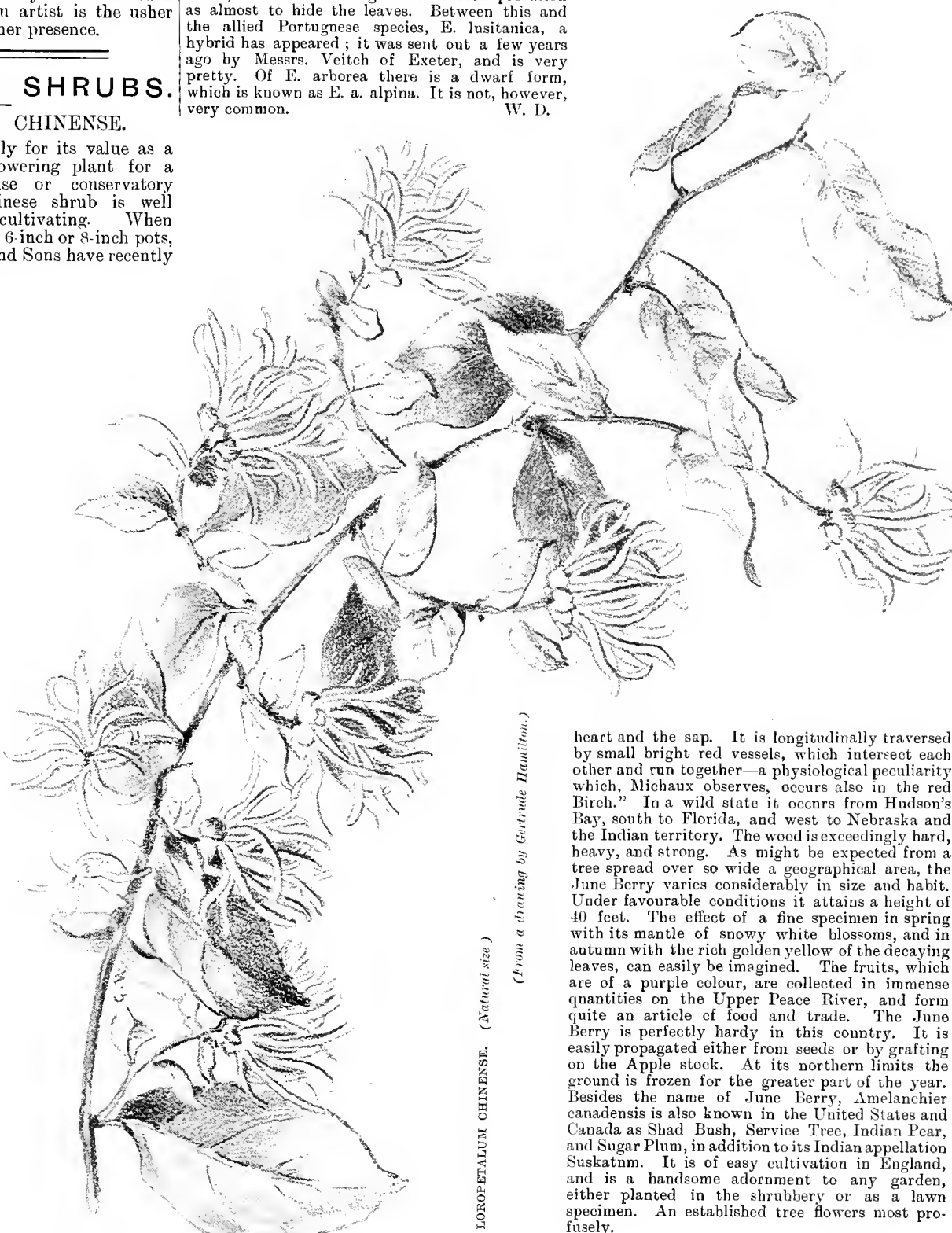
country it will stand all but the most severe frosts, especially if on the approach of a spell of severe weather some dry leaves or a little hay are shaken among the branches and round the collar. Although under favourable conditions it will grow to a height of 20 feet, it seldom reaches anything like that height here; a few specimens 12 feet to 15 feet high have, however, been recorded. When out of flower, the many-branched stems, covered with tiny deep green leaves, have a pretty plumelike character, and are distinctly ornamental. The flowering time is from the end of March until May, and during that period the plants are a mass of white, the blossoms being borne in such profusion as almost to hide the leaves. Between this and the allied Portuguese species, *E. lusitanica*, a hybrid has appeared; it was sent out a few years ago by Messrs. Veitch of Exeter, and is very pretty. Of *E. arborea* there is a dwarf form, which is known as *E. a. alpina*. It is not, however, very common.

W. D.

### THE JUNE BERRY.

(*AMELANCHIER CANADENSIS*.)

This is certainly one of the finest of early blooming trees, and is not nearly so well known as it deserves to be. Loudon concisely sums up the merits of the June Berry as follows: "A very ornamental tree, from its profusion of blossoms early in April and from its rich autumnal foliage; and even the fruit is not altogether to be despised, either eaten by itself or in tarts, pies, and puddings. The wood is white, and it exhibits no difference between the



LOROPETALUM CHINENSE. (Natural size.)

(From a drawing by Gertrude Hantton.)

heart and the sap. It is longitudinally traversed by small bright red vessels, which intersect each other and run together—a physiological peculiarity which, Michaux observes, occurs also in the red Birch." In a wild state it occurs from Hudson's Bay, south to Florida, and west to Nebraska and the Indian territory. The wood is exceedingly hard, heavy, and strong. As might be expected from a tree spread over so wide a geographical area, the June Berry varies considerably in size and habit. Under favourable conditions it attains a height of 40 feet. The effect of a fine specimen in spring with its mantle of snowy white blossoms, and in autumn with the rich golden yellow of the decaying leaves, can easily be imagined. The fruits, which are of a purple colour, are collected in immense quantities on the Upper Peace River, and form quite an article of food and trade. The June Berry is perfectly hardy in this country. It is easily propagated either from seeds or by grafting on the Apple stock. At its northern limits the ground is frozen for the greater part of the year. Besides the name of June Berry, *Amelanchier canadensis* is also known in the United States and Canada as Shad Bush, Service Tree, Indian Pear, and Sugar Plum, in addition to its Indian appellation Suskatnm. It is of easy cultivation in England, and is a handsome adornment to any garden, either planted in the shrubbery or as a lawn specimen. An established tree flowers most profusely.

## THE FRUIT GARDEN.

### COVERING WALLS OF FRUIT HOUSES.

**B**ACK walls of lean-to houses devoted to fruit culture are usually bare, as it is often impossible to grow fruit upon them successfully, especially if the trees on the roof of the house are allowed to reach the top. Bare walls are, however, an eyesore, and some attempt should be made to cover them with greenery. I know of nothing that is more suitable than Smilax and Asparagus. In one garden I visited recently *A. plumosus* has been used for covering the back walls of vineries with great success. Starting into growth with the Vines or Peach trees, the Asparagus or Smilax makes rapid progress, and appears not to mind the heavy shade of the fruit trees' foliage. In the garden in question *A. Sprengeri* is about to be tried, and if it succeeds, and the long growths in time are allowed to depend gracefully from their support, the result should be charming. The Smilax and Asparagus are cut down almost to the ground annually, so that fresh growth may spring up every year. They are not trained to a permanent trellis, but simply to string stretched from pegs in the ground to the top of the house; thus when the Smilax or Asparagus is cut down the string is at the same time cleared away, and the house can be given a thorough cleansing during winter. Apart from their value as a wall covering, the plants mentioned provide most useful material for cutting. For table decoration it need hardly be said that the sprays are invaluable.

H. A. P.

### WOOLLY APHIS ON DWARF APPLES.

In many places last summer dwarf Apple trees were much infested with woolly aphis. Though not easily visible in the winter or early spring, it need not be supposed that it has disappeared, for it is only hibernating, while eggs are probably waiting in minute crevices for the warm weather of the spring to hatch them. Winter is the time to make a raid upon this pest. The spraying with a caustic solution so often recommended for fruit trees is not always practicable with dwarf Apples, as they are so often in close proximity to plants which would be damaged by it, and, besides, the syringing of small bush trees when the leaves are off means that much more solution is wasted than is used in washing the trees. In such cases it is best to apply some solution to the stems and branches with a stiff brush.

Canker in its early stages may be arrested by this means. This cleansing of the trees may be done at any time until the buds begin to burst, but if done after that care is necessary or the buds of blossom or leaf may be much damaged.

There are various substances suitable for this purpose. One is a strong solution of Calvert's Carbolic Soap, using a couple of ounces to a pint of water, and a pint of water will wash a good number of trees when used with a brush. A still better thing is a strong solution of a paraffin emulsion of soft soap, or a paraffin-naphthalene emulsion of the same. The latter is best obtained from a purveyor of garden sundries, but the former can be very simply prepared by boiling a pint of soft soap in a quart of soft water, and adding to the liquid while still boiling, though away from the fire, half a pint of paraffin, and churning up the mixture with a small hand syringe for a minute or two. Though for syringing trees in leaf this mixture should be diluted with ten times its volume of water, three or four times its volume will be sufficient for the purpose of cleaning the bark. For the paraffin-naphthalene emulsion—perhaps the best insecticide on the market—two to three ounces to a pint of water make a very deadly compound to insect or parasitic life, either animal or vegetable. In all these cases the substance needs boiling water properly to dissolve it. My own practice is to put the requisite amount of the paraffin-naphthalene emulsion in a disused soft

soap tin with the necessary amount of water, and then set it on a gas ring till all is dissolved. If a handle is fitted to the tin with a piece of wire the material and the containing vessel are all ready for taking into the garden for use. All greenness of the bark which is so common after a wet season will be removed at the same time by this process.

ALGER PETTS.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE LATE MR. H. HERBST, V.M.H.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—As one who knew Mr. Herbst well for a considerable period will you kindly insert the following? I knew him in business and in private life; he was first associated with Mr. Stenger, but the whole undertaking was eventually in the energetic hands of the subject of this little memoir. It was an education to anyone interested in Palms especially (to mention only one class of plants) to visit his establishment and note how superbly he grew these plants for market. As a member of the Chiswick Garden Board of Direction, many years ago, he rendered practical and sound service to the Royal Horticultural Society in the old historic garden at Chiswick. In the special lines of culture of which he was a past master, his presence and opinion at the floral committee meetings of the society—a member of which body he was for so many years—were of deserved value; opinion always expressed in a quiet, unassuming manner characteristic of the man. The Gardeners' Orphan Fund loses in him a most generous supporter. In association with Mr. Barron, Mr. George Deal (its first chairman), and others too well known to need mention, he did effective work at its foundation; work—for the real love of it—that continued as long as his health permitted. The last issued annual report (1904) of the fund (page 31) gives eloquent testimony as to his practical and hearty interest in it. This splendid charity can ill afford to lose such a warm supporter; rather does it sorely need the addition of many another as generously minded as Hermann Herbst. QUO.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—To the kindly and sympathetic notice of the death of Mr. Herbst, on page 229, allow me, as one who was associated with him for many years, to add a few words. At first the business was carried on as Herbst and Stenger, but the partnership did not last long, and Mr. Herbst soon had the entire business on his hands. Although, as stated, Mr. Herbst was a most energetic man, with a keen business instinct, he was, moreover, extremely fortunate in taking up the culture of plants for market at a time when far higher prices were realised than is the case at the present day, and with the cost of production practically the same the profits were consequently much larger. This applies to plant growing all round; indeed, the decade from 1870 to 1880 was a particularly favourable period for the growers of indoor plants. To his foresight much of Mr. Herbst's success was undoubtedly due, for with the taste for Palms once established he (who had his houses filled with these plants) was able to take them into the market, whereas others less fortunate were obliged to wait two or three years before they could compete with him. This foresight was partly due to a knowledge of the Continent, where Palms were at that time more popular than with us, and the success attending it owed something at least to the Franco-German War, which drove many wealthy people from the Continent to this country, and with them their taste for Palms. Again, the sale of Palms referred to in the article in question, including 6,000 of the then rare *Cocos weddelliana*, yielded most gratifying results, buyers coming from all parts of the country and the Continent, hence competition was keen. Having sown all the

seeds and potted the plants afterwards, I was, of course, greatly interested in the matter, though not in a pecuniary sense. The Lily of the Valley with which Mr. Herbst was so successful realised a shilling a spike throughout the Christmas season, and at times well into January, a price that the retarding process has entirely revolutionised.

Though so successful in anticipating the public demand for Palms, the same measure of success did not fall to his share when the culture of Bromeliads was taken in hand, for, though favourites on the Continent, the British public would have none of them, and the greater part were thrown away. Other subjects besides those mentioned that were first sent to market from the Kew Road nursery were Marguerites, for which as cut flowers large bushes of the typical *Chrysanthemum frutescens* were grown. These proved so remunerative as to soon oust the Camellias which shared the structure with them. Major Clarke's *Begonia weltoniensis* is another that comes back to my memory, and among the many Ferns the major type of *Pteris serrulata* was a great success. Among those who spent a time at the nursery may be mentioned the late Mr. C. F. Bause, who went from thence to Chiswick, where, as propagator, he raised some new garden varieties of *Coleus* (which were so striking that six of them realised £250 at Stevens's rooms), golden-leaved *Caladiums*, *Dieffenbachia Bausei*, &c. After a time at Messrs. Veitch's and then with Mr. Wills at Anerley, he started on his own account at the Morland Road Nurseries, where he died, and the business is now carried on by his sons. T.

## THE INDOOR GARDEN.

### GARDENIAS FAILING.

**I**NOW send you the roots of an old plant that you will see better the cause. The plant in question is three years old, and up to this last winter it grew well, but about Christmas the foliage began to flag. The treatment has been as follows: Soil, peat, turf, and leaf-mould; water, sometimes tap water from the limestone and rain water; temperature, summer 60° to 80°, and in winter 50° to 65°. As to the cause of this disease, I am at a loss.—H.

[The specimen sent is evidently that of a plant that has been hitherto thriving well. Having perused the letter describing the treatment given the plants, we cannot find any cause therein save in the record of temperatures, that given as the minimum in winter being lower than we ourselves should like to risk our plants in. We are very much disposed to think that this is the cause of failure. On a close investigation we can discern that the lower part of the stem where it came into contact with the soil (and that next the roots) is in a worse state of decay than higher up where severed from the branches. This is just what we should expect to see if the plants had been in too low a temperature, more especially if in any way over-watered during that period. The roots and parts contiguous to them would first feel the effects of cold, the soil being relatively cooler than the atmosphere. When 50° is given as the minimum, it is just possible that during the severe frosts the temperature fell even lower than that without "H.'s" knowledge. We remember in the case of some plants of our own that the same thing occurred when they were subjected to too low a temperature, the foliage flagging through the supply of sap being cut off, the wood growth in the branches showing no actual disease. We have a shrewd suspicion that this is the cause of the mischief. Water taken from the limestone would not, in our opinion, be at all favourable to the health of the plants. Gardenias thrive naturally in alluvial deposits wherein there is an absence of lime to a great extent, if not entirely. Rain water, on the other hand, would be congenial to them. It is not stated if artificial manurial stimulants have been applied; if so, and that too liberally, there again is a source of mischief.

Another source of injury would be in the use of strong insecticides to kill the mealy bug. Supposing, for instance, that paraffin oil had been mixed with water and applied to eradicate this plant pest, this mixture would largely run down the stems and enter the soil at the base of the plants; the water there, when coming into contact with the soil, would be separated from the paraffin, leaving the latter strong enough probably to work the injury of itself alone. Without a personal investigation it is not possible to arrive at more precise decisions than those now sketched out as probable causes. In starting afresh we would advise 55° as the minimum temperature most certainly, the other suggested items being at the same time avoided.—ED.]

## THE KITCHEN GARDEN.

### BROCCOLI.

**V**AST strides have been made during recent years in the improvement of this important vegetable. Though it generally lacks the delicacy of the better varieties of Cauliflowers, it forms a splendid substitute, and by making a careful selection a well-managed garden should maintain an unbroken supply of one or the other during the whole year. Nevertheless, to ensure this a proper system of management must be insisted upon; and as we have once more arrived at the season for beginning, I will endeavour to give my experience for the benefit of those who may be anxious to obtain the best results. It must be perplexing to know the sorts to select from the large number catalogued, and to make an attempt to grow only a fair percentage would require more space and labour than are generally allowed. If this could be accomplished little or nothing would be gained, as many so-called varieties are distinct in name only. The great point is to choose those sorts which develop their heads at various seasons, say from October to June, and three sowings at least should be made, varying from the last week in March till the first week in May.

A small sowing of the earliest sorts should be made under glass in a cool house. Scatter the seed thinly in boxes, and in due course prick off the seedlings either in cold frames or in a sheltered position where protection can be given during inclement weather. A second sowing of all the sorts to be grown should be made about April 10 on well-prepared seed beds in an open position; sow the seed thinly broadcast, and thoroughly protect against birds. Where clubbing exists apply a good dressing of finely sifted cinder ashes. The final sowing should be made the first week in May under similar conditions. I never think it is necessary to prick off these, providing the plants are not overcrowded, as generally at such a busy season there is better work to do.

### PLANTING.

Immediately the plants are large enough no time should be lost in planting them in their permanent quarters, and except for the early sorts, which come in during October and November, the ground should not be dug, as the firmer the land the sturdier and harder the growth, and so much safer the crop in severe winters. Always allow plenty of space between the plants so that light and air can reach them. At least 2 feet 6 inches should be given between the rows and 2 feet 3 inches from plant to plant. Select, if possible, an open site, and it is always a good plan to plant these in quarters that have been occupied with mid-season Peas. Holes should be bored with an iron bar, using a little fine soil on heavy ground, and give a

thorough watering in. If the work is done before the Peas are removed all the better, as during hot weather these will give the plants just sufficient shade to allow them to recover quickly from the transplanting. After the Peas are taken away fork over the surface to the depth of about 3 inches, and hoe frequently, when the plants will grow away apace, and require no further attention till about the middle of November. At that time means must be adopted to protect them. I know of no more simple or effective plan when properly performed than laying them down, which will render them secure during any ordinary winter, and in any localities, but, as before stated, the work must be thoroughly done. A good trench should be opened and the heads carefully turned over, inclining them to the north. The stems should be well covered close up to the top growth, breaking up the soil finely and treading it thoroughly firm about them. It is well to remember that the softer part of the stem suffers, consequently extra care should be taken to make this secure; and if this is efficiently done one may rest content that in all ordinary winters the crop is practically ensured; but in case of unusual

other sorts are past their best and early Cauliflowers are not plentiful. The quality is excellent, and the heads are wonderfully protected naturally by foliage. Late Queen is also a very useful variety. E. BECKETT.

*Aldenham House Gardens, Elstree.*

### LITTLE GROWN VEGETABLES.

VEGETABLES that are grown far less than their merits deserve are the following:

#### COUVE TRONCHUDA,

also known as the Portugal Cabbage, comes into use at the close of the summer months, and proves most useful. All that is needed is to raise the plants early, treating them similarly to autumn Cauliflowers. Not being hardy, this must have attention, so as to get the plants forward enough to enable their being set out early. In favourable districts the sowing may take place early in April in a warm and sheltered border, taking care that the soil is in a rich and friable state. This vegetable is of large growth, and when cooked it is of a very delicate flavour. It is the midrib of the large outer leaves



BROCCOLI PROTECTED IN WINTER AND EARLY SPRING. (A photograph taken in the gardens of Aldenham House, Elstree.)

severity, or even after a sunless season like the last, some light material should be placed over the tops, and even then during severe frosts the heads will go on developing.

### VARIETIES.

Sutton's Michaelmas White is unquestionably a valuable addition, and very nearly allied to the Cauliflower both in foliage and head; it should be grown in every garden. Webb's Vanguard is likewise a first-rate kind, and very distinct. Sutton's Christmas White I have grown since its first introduction, and it has never once failed to produce its crop at or about the season which it takes its name from. Snow's Winter White still holds its position, when a true stock can be obtained, as one of the best winter Broccoli. Leamington is a very old but still a most reliable variety, which we always depend upon to follow the last-named. Carter's Summer Broccoli, a very distinct and useful sort, is one of the very best. Webb's May Queen is also a splendid late variety. Veitch's Model I regard as the finest late type in cultivation. It comes in at a season when many

which is parted and then cooked as Seakale. After all the outer leaves have been taken and used, the centre heart may be cut and boiled as a Cabbage. As it is very essential that the growth be rapid and vigorous, plant out on a deep and rich soil well exposed to the sun, allowing ample space for development. It is best cultivated in a single row, setting the plants 3 feet apart, taking care that they are not smothered up with other crops. The plants should be ready for the ground at the time the autumn Cauliflowers are planted. In a dry season copious supplies of water and an occasional soaking of liquid manure must be given or the midribs will not be so tender as they ought to be.

### CELERIAC

can never be expected to take the place of Celery as a vegetable in this country, although it proves useful as a change, and a few dozen in any garden of the smallest size do not take up much room. The seeds if sown now in a gentle heat will produce plants fit for planting at the same time as Celery. But while Celery is planted in trenches of rich soil and earthed up to blanch the stems, Celeriac must

be planted on the level. The soil must also be rich and light, as on sandy soils the growth is more satisfactory. At the time of planting all sucker growths must be carefully removed; if allowed to remain they branch out and form divided roots, instead of one main central root or root-stock, whichever may be the correct term. The plants are set out with the base just resting on the surface, care being taken to plant firmly. It is best to form a separate bed, setting out the plants 15 inches or 18 inches apart. To keep them growing freely, water must be as plentifully supplied as for Celery. After planting, and when they are growing freely, go over them and press the soil quite down to the base of the plant, also removing any sucker growths which may appear throughout the growing season. At the end of the season, or when frost is likely to appear, the roots may be either lifted and stored in sand, or heavily moulded up with soil, the whole being surfaced with dry leaves. The roots protected in this manner retain their flavour and also winter better than when taken up.

#### SALSIFY AND SCORZONERA

when well grown are highly appreciated by many people, although, as is very often the case, the roots are not forthcoming in good condition. They must be clean and straight and devoid of flower-stem. The latter is on account of too early sowing, the first or second week in May being quite time enough. Soil that will grow good and clean Carrots will suit the two vegetables under notice. Soil with manure near the surface will result in forked roots. If the soil is not sufficiently fertile to grow good and clean roots, take out a trench 15 inches or 18 inches in depth, putting the manure in the bottom and filling up with the soil taken out, adding some burned refuse and old potting soil if the staple should be at all heavy, as this latter is the worst kind for growing good roots. Of course, trenches need only be formed in exceptional cases, but it is much better to do this and grow roots worthy the name than the poor and forked ones so often seen. A couple of rows, each about 25 yards in length, will give sufficient produce for any ordinary establishment. A.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### HARDY CACTI.

**D**URING the resting period damp is a far greater enemy than a low temperature to these. Although the winds have been cold and we have had some sharp frosts, these interesting plants have shown a marked improvement since the recent spell of dry weather set in. The surface soil should be frequently stirred; any pieces of sandstone that are discoloured with moisture should be replaced with freshly broken stone. A few pieces of charcoal around the stems will absorb a lot of moisture. Any decaying portions of the plants must be carefully removed. All coverings, lights, &c., should be taken off as often as the weather permits. The collection of hardy Cacti growing around the Palm House at Kew is an admirable object-lesson in the successful culture of these plants. There the well-drained, raised beds of loam and pieces of sandstone are sheltered in the recesses between the buttresses of the building, and no doubt there is an appreciable warmth from the heat in the Palm house. At Kew during severe weather a garden net is thrown over the plants. If detachable lights could be arranged so as to throw off the rains and afford protection during cold weather the plants would be more quickly established. There is an increasing number of species and varieties to select from. Several nurserymen who specialise the rarer hardy and half-hardy plants have imported collections from the mountains of Colorado, New Mexico, &c.

#### THE FERNERY.

Hardy Ferns will soon be pushing up their new fronds. Last year's fronds may now be removed.

If there are no bulbs growing among the Ferns the surface soil should be very lightly pricked over and a good dressing applied. Most Ferns delight in a heavy mulch of half-decayed leaves, which not only conserves the moisture, but also provides a good rooting medium. In making a new fernery it is advisable to select, as far as possible, a fairly moist and partially shaded spot. For the majority of Ferns a good loam mixed with a little leaf-mould and some broken soft brick or sandstone to keep the soil porous will prove a suitable compost. Ample room should be given to allow the strong growers to develop. The Osmundas will want plenty of moisture, and a shady recess will suit such genera as *Hymenophyllum* and *Trichomanes*. The smaller growing kinds should be kept well to the front. The Maidenhair Spleenwort (*Asplenium Trichomanes*) grows freely in a rough wall facing north or north-east. A collection of all the kinds found growing locally will add greatly to the interest of the fernery. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

### INDOOR GARDEN.

#### DISA GRANDIFLORA.

THIS, the Table Mountain Orchid, is not one of the easiest plants to cultivate successfully. Sometimes, however, they are found thriving favourably, but only when the treatment they receive is such as to imitate very closely the conditions under which the plants are situated naturally. Avoid high temperatures and cold draughts, but admit fresh air in abundance. It matters not whether they are grown in pots or planted out; a sweet compost and an efficient drainage are important. The plants are now growing freely, and while their surroundings must be kept cool and moist by syringing, avoid wetting them overhead, or the water will lodge in the crowns of the growing shoots and probably cause them to decay. Afford them all the light possible, with shade from strong sun, and keep a keen look out for green fly and thrips, with which these plants frequently get infested. Destroy the pests by fumigating lightly for two or three nights in succession with XL All Vaporiser.

#### MALMAISON CARNATIONS.

These plants, if the collection is healthy, are now making good growth, and to apply stimulating manures, especially such as are artificially prepared, to their roots with a view to making them grow strong is a mistake. Beyond an occasional dose of soot water, and, as the flower-buds begin to form, one, or not more than two, dressings with Clay's Fertilizer are sufficient for first year's plants, but two year old plants will derive much benefit if given a little cow or sheep manure liquid. One year old plants should not be allowed to carry more than one flower-spike, from which all side flower-buds should be removed. The second year's plants will require exactly the same attention in respect to disbudding, and also will require to be carefully staked and supported. The plants sometimes are affected by damp during foggy weather, but if the minimum temperature is 45° there need be no anxiety in this respect. Abundance of fresh air should be admitted at all times, and occasionally fumigate to prevent green fly.

#### CORDYLIN INDIVISA.

This is one of the most graceful as well as most useful green decorative plants in cultivation. They are easily raised from seeds, which should be sown at once and placed in a moist warm temperature to germinate. When once established they afford very little trouble, and can be maintained in a perfectly healthy condition in a greenhouse temperature.

#### STREPTOCARPUS.

Great improvement in colouring and floriferousness of these plants have been lately effected by Messrs. Veitch of Chelsea. The flowers, which are Gloxinia-like in character, are produced in great profusion and in many shades of colour, and are well adapted for decorative work. Young plants perhaps grow and flower the best, and especially so when raised from seeds, that should be sown

annually about this time or earlier. They germinate freely in a light sandy compost, and in a moist warm temperature of 65°. The plant is dwarf, and can be grown to a high state of perfection, with the assistance of stimulating manures, in very small pots. The only pest with which they are troubled is green fly, and this is easily kept in check by fumigation. J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

### KITCHEN GARDEN.

SLIGHT frosts still continue and retard work in the kitchen garden. I am writing this calendar while on a visit to the north of Scotland. Little difference is to be noticed, vegetation being advanced just as far sixty miles north of Aberdeen as near Edinburgh.

#### CARROTS.

Sow the main crop of this vegetable where the soil is in suitable condition. Intermediate or St. Valery are the most suitable for this sowing. The land for this crop should have been carefully prepared in the autumn, manure then put down at least 1 foot; a heavy dressing of fresh sea sand or seaweed will do much to ensure success with this crop. Before sowing give the soil a good dressing of soot and wood ashes. Sow rather thinly in drills 15 inches apart. If roots fit for exhibition are desired the dibber must be used, holes to the depth of 15 inches or 18 inches being made, and filled up with finely-sifted soil to which has been added soot and a sprinkling of salt, sowing a few seeds in the middle of each. To ensure good clean Carrots all through the summer sow every three weeks till about the beginning of August; make a larger sowing then, and this will carry one far into the winter, when the larger roots of the main crop sowing may be brought into use. Pay careful attention to Carrots growing in frames, admitting plenty of air in fine weather, and by not letting the soil get dry.

#### FRENCH BEANS.

Frequent sowings must still be made for fruiting in pots. Where a warm pit is available they may now be grown successfully. See that the soil is about 15 inches from the glass, and sow in rows about 18 inches apart, keeping the frame close till the seedlings appear. Also make a good sowing in boxes for planting out towards the end of April. Sow the seeds thickly, and avoid placing them in strong heat, but grow them sturdily in cool quarters.

#### BETROOT.

A small sowing may be made for early use of any variety, but the main crop sowing may be left for several weeks.

#### CELERY.

The main crop should now be sown. Sow not too thickly in boxes, place in genial warmth till the seedlings appear, then remove to slightly cooler quarters. Do not let the plants when pricked out suffer from want of water or overcrowding, these being the chief causes of Celery running prematurely to seed.

#### GENERAL REMARKS.

Ply the hoe among all growing crops on fine days, give liquid or other manure to Spinach, autumn-planted Cabbage, Rhubarb, and other crops that are in active growth. Carefully tend Onions, Leeks, Parsley, &c., that are being forwarded in heat. THOMAS HAY.

*Hopetoun House Gardens, Queensferry, N.B.*

### FRUIT GARDEN.

#### EARLY PERMANENT VINES.

WHERE the fruit has commenced to develop after stoning the border should be well watered with liquid manure. A temperature of 65° to 70° at night will be suitable, closing early in the day at 80°, with plenty of moisture. Go over the bunches to regulate them for the last time, and remove any seedless berries. See to the stopping of strong laterals, and allow the weaker ones a little more extension. As the Grapes approach ripening reduce the temperature gradually to about 60° at night, increasing the air a little, also keep the

atmosphere drier. If red spider makes its appearance carefully sponge the leaves with soft soap and sulphur before it spreads and becomes general, or paint over the pipes when hot with milk and sulphur.

#### SUCCESSION VINES.

Vines started early in February are now making rapid progress. Continue to regulate the shoots and stop the laterals, but avoid overcrowding the principal leaves. A temperature of 65° is suitable at night for the flowering season of most varieties

in light soils, should be mulched with short stable litter.

On heavy soils, if the weather continues wet and cold, the mulching must be delayed until the soil is warmer. Trees newly planted from the nurseries should have permanent labels fixed to them, as nursery labels do not last long, and much trouble and inconvenience are often caused by not doing so. Acme labels are cheap and easily fixed, and last as long as anything. Allow plenty of room when fixing the wires for the branches to

by some financial support from lovers of alpine flowers, two botanical gardens have been established—the older one (La Linnaea) at Bourg St. Pierre, on the road to the Great St. Bernard; the younger (La Rambertia) at the Rochers de Naye.

The latter place is the rendezvous of the August meeting. An alpine railway rises from Territet (between Montreux and Villeneuve), its mountain terminus being an hotel of the Gyon-Naye Company, which takes a hospitable part in the fête by giving a dinner to the assembled botanists. On the second day an excursion is planned to the garden at Bourg St. Pierre.

The meeting is in the interest of these and other such botanical stations and their relation to the botanical world generally, the object of the mountain stations being the testing and observation of plants from all mountain places, production of seed for interchange, &c.

We gather that the invitation to take part in this interesting meeting is extended not only to botanists, but to all who sympathise with the work of the committee. The modest sum of twelve francs covers all the expenses of the part relating to the Rochers de Naye. Those who wish to take tickets or to receive further information are requested to communicate with Mr. Correvon at Floraire, Chêne-Bourg, Geneva.

## ORCHIDS.

### CELOGYNE CRISTATA AT HATFIELD.

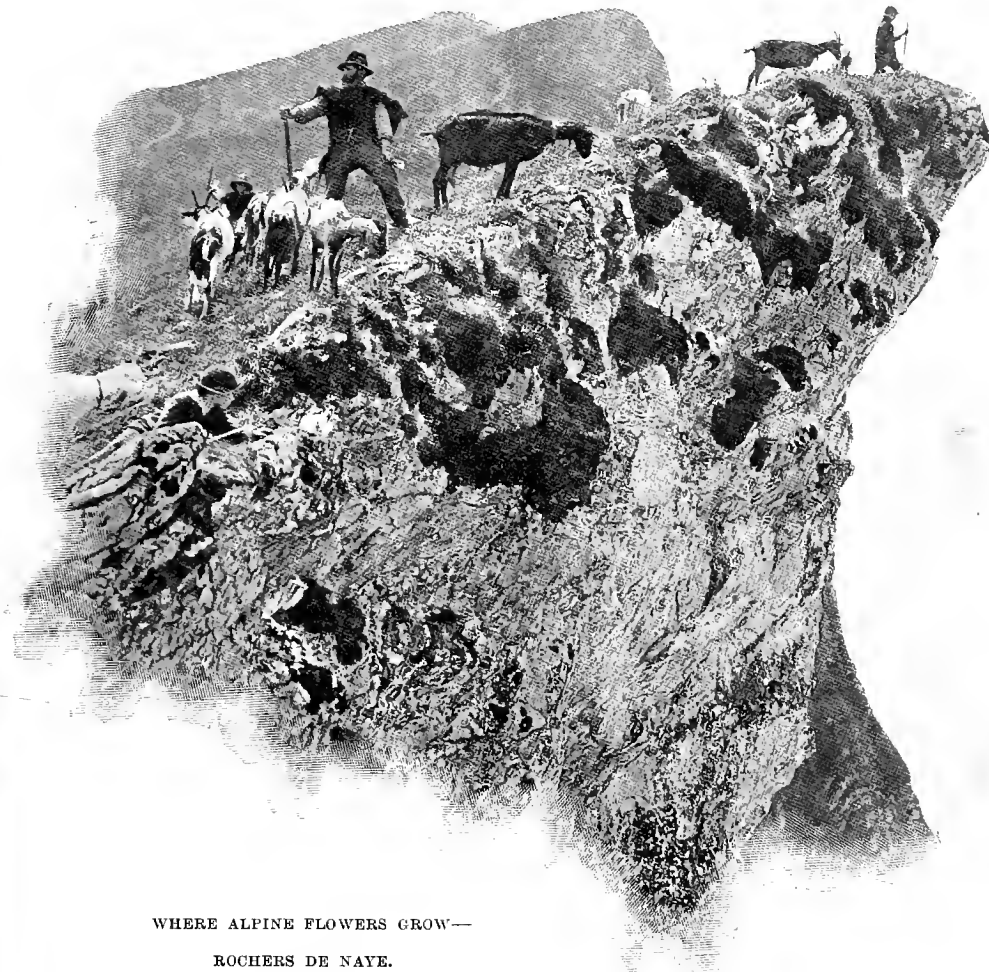
FOR culture in a private garden this is a particularly valuable Orchid. It is an Orchid that no gardener should be without, no matter how small his garden may be. The finest collections of *Ceologynes* are associated in one's mind with such gardens as Chatsworth, The Dell, Egham, and others; but in numerous places not so famous as these *Ceologyne cristata* has long been treasured as a most useful Orchid. During a recent visit to the gardens at Hatfield I was shown a house full of this Orchid. Most of them were growing in pans, these being quite close together, and the plants were literally cascades of flowers; they made a charming display. Besides *C. cristata* the best varieties are also grown, for instance, I noticed *lemoniana*, *Chatsworth* variety, and *maxima*. At this time of year, either for cut bloom or for a display in a house, nothing could be much more profitable than a number of well-grown *Ceologynes*; they could hardly fail to be appreciated by all who saw them. Mr. Norman has grown the large number of *Ceologynes* that he now has from two

plants given to him some years ago, surely a record in this direction. The fact of his having been able to grow sufficient plants to fill a fairly large span-roofed house from two plants originally, *ir*, I believe, fourteen years, speaks well for the satisfactory nature of the *Ceologyne* when given suitable culture. The conditions essential to its well-being seem to be a compost of sphagnum moss and fibrous peat, well drained pans or baskets, careful watering, and a cool temperature. A. P. H.

### WORK FOR THE WEEK.

#### DECIDUOUS CALANTHES.

THESE Orchids find a home in many gardens, and we have few plants that repay more fully the time



WHERE ALPINE FLOWERS GROW—

ROCHERS DE NAYE.

excepting Muscats. Maintain a moist atmosphere, ventilate freely early in the day, close early, and avoid a high night temperature. Commence to thin the bunches as soon as it can be seen which berries are swelling, remove all surplus bunches, and avoid overcrowding the Vines. Sprinkle the paths and borders at night with weak liquid manure water or weak guano water, 1oz. to a gallon.

#### LATE VINES.

Disbud and tie down these. Where young Vines are breaking regularly remove the shoots to 15 inches or 18 inches apart. Do not keep too close an atmosphere in these houses, but secure strong, healthy foliage by free ventilation and low night temperatures.

#### MULCHING FRUIT TREES.

Any fruit trees recently planted which are worked on surface-rooting stocks, and especially if

swell. Older trees should be examined and the wires untied if they are cutting the bark.

*Impney Gardens, Droitwich.* F. JORDAN.

## ALPINE FETE AT THE ROCHERS DE NAYE.

WE receive from Mr. Correvon an invitation to take part in a botanical fête and conference on August 16 and 17 at the Rochers de Naye, a very beautiful mountain place at an elevation of 6,000 feet above the Lake of Geneva. Our readers already know that, thanks to Mr. Correvon's indefatigable industry, aided

spent on them. Flowering during the dullest portion of the year, they make a grand show in the houses staged among Ferns, &c., or, if required for decoration in the dwelling-house, they can be used without any harm accruing. New growth is now in evidence, so they should be potted up forthwith in a mixture of two-thirds fibrous loam and one-third Oak leaf-soil, well mixed together with a liberal sprinkling of coarse sand and small crocks. A thorough drainage should be afforded. I prefer potting them all singly in 4-inch, 5-inch, and 6-inch pots, according to the size of the pseudo-bulbs. They require potting firmly, the soil should be kept below the rim of the pot, and the base of the new growth just below the surface of the compost. Large pseudo-bulbs should be secured to a small stake to keep them rigid till the new roots have taken hold of the compost. At first a sunny position should be afforded in a humid house where the night temperature does not fall below 65°. Until the young growths are from 4 inches to 6 inches high they should only be watered when the soil has become quite dry. By allowing a certain amount of sunshine to the plants when they are starting into growth, gradually reducing it as they develop,

#### A HARDER GROWTH

is produced. This, together with keeping the compost dry during the early stages of growth, is very helpful in warding off the spot which so often infests the foliage. I do not advocate the use of any manure either in the compost or given in liquid form. Without manure the flowers are produced much closer together on the spike, are more effective, and, above all, there is much less fear of the black rot setting in, which often ruins the entire stock. I know there are many who would no more think of growing their *Calanthes* without dried cow manure in the compost, and applied in liquid form during growth, than they would of growing *Chrysanthemums* without the aid of manure. To those I say "Try some," and I am sure the whole stock would soon be treated likewise.

#### ODONTOGLOSSUM CRISPUM.

The question "When should they be potted?" often crops up. My opinion is that they want potting when the new growth is 1 inch or 2 inches high, irrespective of any season. Some plants are more or less in flower every month, consequently the growth must likewise be very irregular, so when a plant wants potting the right time to do it is when it is ready. It is a great mistake to confine the potting seasons to autumn and spring. The compost should be made up of two-fifths fibrous peat, two-fifths chopped sphagnum, and one-fifth leaf-soil, well mixed together with some coarse sand. A moderate drainage of rhizomes should be afforded, and pot rather lightly, keeping the compost below the rim of the pot to allow of a good surfacing of sphagnum. Old pseudo-bulbs should be removed or nearly cut through, retaining not more than three behind each lead. Many spikes will now be in evidence, and they should be drawn to the desired position. Weakly plants should have the spike removed to allow the plants to recuperate; those making vigorous growth should be afforded water freely, keeping those that are dormant on the dry side. Admit air freely whenever the outside temperature is genial, and keep the entire surroundings well damped and syringe freely.

#### ODONTOGLOSSUM BICTONENSE.

This must now have attention. If it requires repotting this season use the same compost as advised for *O. crispum*. A rather warmer temperature should be given it than that of the cool house. A very suitable house is the cool intermediate, where plenty of fresh air is admitted.

#### ODONTOGLOSSUM CITROSUM.

These, having been given a thorough rest since the completion of last year's growth, will be starting again, and more water should now be given. Do not hasten the growth in any way till the flower-spikes are visible. A light position is beneficial, gradually reducing the amount of sunshine as the spikes develop, and increase the supply of water. After the flowering season is over is the

best time to do any necessary repotting in the same compost as previously advised. Give an ample drainage of rhizomes. Pans without side perforation, or ordinary pots that have three small holes by which to suspend them, provide suitable receptacles. They must be suspended on account of the pendulous spikes. During active growth they will take water freely, and overhead syringing is beneficial on bright days. The temperature of the intermediate house is well suited to their requirements at all seasons. W. P. BOUND.

Gasston Park Gardens, Reigate.

## THE LILIES.

(Continued from page 217.)

**LILIIUM JANKÆ** (Kern), the yellow Turncap Lily.—A very rare plant of the Martagon type, but little, if at all, known to general cultivation. It inhabits the lower reaches of the Julian Alps of Carniola, and proves exceedingly difficult to import in good order. The bulbs, leaves, and stems are identical with *L. Martagon*, and the flowers are yellow. The plant generally grown in Europe as *L. Jankæ* is *L. albanum* of Griesbach, a plant of carnioleum type. Culture and uses, see *L. Martagon*.

*L. japonicum* (Thunb.), the Beautiful Pink Japan Lily.—A variable species from the Japanese mountains, and widely known as *L. Krameri*. Its colouring varies somewhat, but all the forms are beautiful. Bulbs like those of small *L. auratum*, very tender, and easily damaged; roots distinctly perennial. Stems slender, 2 feet to 3 feet high, dotted purplish low down, glaucous, and rooting freely from their bases. Leaves mere scales of short duration below, narrowly lance-shaped above, broadest and longest near the inflorescences, pale green, five-nerved, scattered. Flowers one to five in a lax umbel, and varying in colour from white to pink, the darkest forms few-flowered, the white forms four to five-flowered and broadly funnel-shaped, 4 inches across, like *L. candidum* in outline, but more wavy; the petals of delicate texture and excellent finish; colour pale rose-pink, silvery pink, or white, the low-level plants palest, those occurring at elevations of 3,000 feet to 5,000 feet the richest, darkest, and dwarfest forms; anthers small and daintily poised, red. Common in cultivation. Flowers in July and August. Inhabits rocky plateaux of the Senano Mountains, Island of Nippon, Japan, in association with low-growing scrub and herbs.

CULTURE AND USES.—This beautiful Lily is difficult to manage. There are, however, thriving colonies in various parts of the country, all of which owe their well-being to association with shrubs; indeed, we are fully assured that this is the only way in which this Lily can be well grown. The fibrous nature of its outer scales indicates conditions approaching the alpine, and we would suggest beds of *Ericas*, hybrid *Azaleas*, or any planting of peat-loving shrubs as suitable homes for *L. japonicum*. It is almost hopeless to attempt its cultivation in the plant border; semi-wild conditions, where the bulbs can be planted in a tangle of roots and the stems can find their way through the protective plants, appear in our judgment to form ideal positions. Even in pot culture that specimen with a few weeds about its base thrives better than the others. In all cases shade should be afforded to the young shoots. Once the plants have become strong they enjoy full sunshine overhead. Avoid manure or very rich soil. All the help the plants require will be a slight mulch of leaf-soil when a few inches high. This species grows well in pots under cool house

treatment. It needs abundant drainage and gentle forcing.

*Var. Alexandra* (Hort. Wallace), Queen Alexandra's Lily.—A very beautiful form, unknown, so far as we are aware, as a wildling, and, in our judgment, a hybrid that originated in Japanese gardens between *L. longiflorum* and *L. japonicum*, the plant showing exactly intermediate characters. Bulbs as in *longiflorum*, small, milk white, very tender, and apt to get injured by rough handling and exposure. Roots stout and freely produced, as in *longiflorum*. Stems green, stout, stiffly erect, 18 inches high, rooting freely from their bases as in *longiflorum*. Leaves five-nerved, deeply-channelled, pale green, 4 inches to 6 inches long below, smaller above, resembling those of wild *L. longiflorum*. Flowers openly funnel-shaped as in *L. japonicum*, one to five on each stem, white, tinged with green internally and externally low down, 6 inches long and wide, poised sub-erect if one-flowered, horizontally if more than one, the inner petals broadest, all are undulating, little or much recurved. Filaments and styles as in *longiflorum*. Anthers ruddy brown as in *japonicum*. Common in cultivation. Flowers in July. Habitat unknown, but the Lily is widely cultivated in Japan. A very beautiful plant, but difficult to grow and flower for many years in succession in this country. We have seedling hybrids between *L. japonicum* and *longiflorum* in the course of development, which, we hope, will settle the disputed hybrid origin.

CULTURE AND USES.—This Lily requires the same culture as *L. longiflorum*. A cool shady border will grow it well, choosing as associates for it *Aubrietias* or the common Woodruff in the form of a protective carpet. It must have a light soil, for the bulbs are very susceptible to decay, and in early spring a few Fir boughs should be placed over the site, otherwise the young shoots may be injured by frost. We have grown it well in a cool frame, but have seen it even better in a Midlothian garden, there almost equalling normally-grown *L. longiflorum* in stature. It grows exceedingly well under pot culture, and provided the specimens are not unduly forced, and are carefully tended after flowering, they do well for several seasons, better than plants in the open, and we think this is the best way to grow them. G. B. MALLETT.

(To be continued.)

## NOTES FROM THE MARKETS.

### EASTER TRADE.

**S**UPPLIES in Covent Garden Flower Market were fully equal to all demands. Altogether there was a brisk trade, and on Saturday morning, in addition to the ordinary trade buyers, there were many private people in the market, and at one time it was quite crowded. There was a very brisk trade early in the morning, and a slight advance in prices in most things, but it could scarcely be said that anything went much above ordinary prices. *Lilium longiflorum* was perhaps an exception, these making 10s. to 12s. per dozen blooms. There were a few *Madonna Lilies*, which also made good prices. *L. speciosum rubrum* was very fine, but did not sell so well. *L. tigrinum* was also good. Callas were fairly plentiful; there is always a good demand for these at Easter time, and prices went up to 8s. per dozen blooms for best. These also sold well in pots. Most white flowers sold readily. *Azaleas* were very plentiful, and sold fairly well. Some beautifully flowered plants of *Deutsche Perle* were in; also the



newer white Niobe. Good bright colours were also plentiful. Azalea mollis was very good, but did not sell so well. Some good Rhododendrons were also seen; some large plants, well flowered, did not find purchasers. Crimson Rambler Roses were much better flowered than those previously seen. There were also a few other Roses in pots; and cut Roses were plentiful and very good; for the next week or two they will be better than later on. They generally fall a little short after the first crop is off.

Daffodils were in great abundance, but the demand was also large, and they sold freely at slightly advanced prices. In all cut flowers there was a better trade than for pots. Marguerites were very good and plentiful. The same might be said of Genistas, beautiful plants selling at 6s. per dozen. Cyclamens were also good, and sold fairly well. Among Heaths there are now a few Cavendishi and candidissima coming in. The wilmoreana and persoluta alba continue good and plentiful. We find the last-named is now a favourite for cutting; it works in well among large flowers for wreath work and other designs. White intermediate Stocks, the Wallflower-leaved variety, in pots are now coming in. There is also a good supply of cut double Stocks in several colours. These are now much used for a groundwork for wreaths, &c. We have seen the purple, pink, and white used as a cushion for other flowers to stand above.

Hyacinths and Tulips continue plentiful. On Saturday there were splendid white Hyacinths three in a pot. They were realising 10s. per dozen pots, but some were left over at closing time. Good Lily of the Valley in pots were plentiful. Hydrangeas are now coming in from several growers, the white Thomas Hogg very good, and sells well, but the pink Hortensia is hardly good enough in colour yet. Cinerarias continue plentiful. Pelargoniums are not yet plentiful, but a few very good plants are coming in. Zonals are more abundant, and among them the white-stemmed sport from H. Jacoby, King Edward, is well worthy of note, and will make one of the best for early work. Well-flowered plants were making 8s. per dozen.

For Palms and Ferns there was only a moderate demand, and other foliage did not go much better. Acer Negundo variegatum was seen on some stands, well-furnished plants, but they did not sell very readily. At Easter the greatest demand is for cut flowers and well-flowered plants in pots, of the ordinary 4½-inch size.

## THE HAMMOCK UNDER THE OAKS.

### A BANK OF BLUE FLOWERS.

OF all the wild blossoms that bloom by pond or stream, in shady woodland, along green pastures, or on mountain slopes, none are so appealing to the flower lover as those of cerulean hue. Perhaps this is because Nature is so much more lavish in the use of all the other colours on her palette to make her floral pictures.

Here, in Eastern America, for instance, there is no tree or shrub of any size that bears blue blossoms. To be sure there is *Caryopteris Mastacanthus* in our gardens, but that is not a native. It flourishes in our gardens, however, and is almost the only shrub having blue flowers that can endure our climate. In our garden here the *Caryopteris* makes quite a large, spreading bush, about 4 feet in height, but it is not absolutely hardy, and has to be protected in winter. Then, too, the flowers of *Caryopteris* are not a true sky blue, but are tinged with lavender.

Ceanothuses and shrub Veronicas are not hardy here. Our native *Ceanothus americanus* is a small shrub having tiny white flowers in clusters. The species that have blue flowers are all more or less tender. The same may be

said of shrubby Veronicas. Besides the *Caryopteris*, the only bush that we have here at Rose Brake that produces blue flowers is *Vitex Agnus-castus*, a very old shrub from South Europe, with small lavender-blue flowers in clusters late in the summer. This shrub is not very hardy in this climate, and its flowers are few and inconspicuous—so chary is Nature in the use of blue for mere terrestrial purposes. A French writer speaks of "the little blue flower of romance," and one of our American writers has embodied almost the same idea in a volume of stories called "The Blue Flower," only in his case the blue flower diligently sought for by his characters typifies the search for happiness. Many of the poets have attached ideas of romance and of tenderness to blossoms of celestial colouring. Witness the legend of the Forget-me-not, and Tennyson's delicate reference to the "little Speedwell's darling blue." It is with peculiar affection that I have come to regard the flowers of this colour that I can coax into bloom in my garden. So greatly do I prize blue flowers that I have even tried to induce Viper's Bugloss and wild Chicory to content themselves in shrubby beds. Do English readers know Viper's Bugloss? It came to us gratuitously as an emigrant from Europe or Asia, and belongs to the Borage family, which furnishes us with so many blue flowers, such as *Myosotis*, *Lithospermum*, *Mertensia*, *Verbena*, and *Symphytum* or *Comfrey*. Its full name is *Echium vulgare*, and although it is a coarse and prickly plant, there is no doubt about the beautiful colour of its flowers. Sometimes in this neighbourhood one sees neglected pastures overrun with this plant, which farmers consider a pest.

It was not until last autumn that the idea occurred to me of clothing part of a gently sloping bank that we pass in the little journey from the dwelling-house to the hammock under the Oaks with some of my favourite plants with blue flowers. This bank, on a foundation of limestone rock, is composed of a very stiff red clay, much of which had to be removed, and a good compost of soil from the site of an old wood-pile, leaf-mould, and barn-yard manure well incorporated with the upper spit of the original soil of the bank. Some large stones dug out of it in process of preparing it for planting were replaced as nearly as possible according to the directions given in THE GARDEN for rockwork. As we wished the bank to begin to be beautiful as soon as possible, we did not here experiment with plants whose needs we did not understand from long experience, but selected, for the most part, those that were pretty sure to do well. Around the rocks we planted some blue and white-flowered Columbins. A part of the bank was devoted to a low-growing *Delphinium*—Queen of the Blues, which is a fine colour. We also put in some *Campanula glomerata* and one or two other species that do well here. Patches were formed of the native *Conoclinium cælestium*, and around some of the rocks we made colonies of our wild Hepaticas. The lovely blue European Anemones are scarce and almost impossible to procure in America, and such as I have tried have not done well. We succeed, however, with *Muscari*, *Scillas*, and *Chionodoxas*, and so we made groups of these in several places and filled up the interstices with mats of creeping Veronicas. These, in several species, do remarkably well in our dry soil and in a sunny situation. Of course, Forget-me-nots need more shade and moisture than we can supply, so we did not attempt them. Of the Veronicas we found *V. amethystoides* one of the first to bloom. It spreads quite rapidly, and took kindly to the bank at

once. But why is it called *amethystoides*? I am sure that I never saw an amethyst so blue as its blossoms.

DANSKE DANDRIDGE.

(To be continued.)

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

### WEBB'S SUPERB CINERARIA.

Cinerarias have long been finely grown, and a great improvement in varieties has been effected by Messrs. Webb and Sons, Wordsley, Stourbridge. We have received a selection of their Superb strain of these flowers, whose characteristics are large flowers, rich colouring, and distinct markings. The blue is a particularly handsome flower, the petals broad and thick, and of rich blue; a larger flower, with petals of deeper blue and white eye, is very effective, while finest of all, perhaps, is an unusually large bloom of true crimson colouring. Others worthy of note are the white variety with purple-black centre, blue with large white eye, deep purple, magenta, bright crimson with white eye, rich purple with large white eye, and brilliant crimson almost with a tinge of blue. Any of these would make a grand display in the greenhouse.

## BOOKS.

**Les Fleurs Nationales et les Fleurs Politiques** (par Georges Gibault).—This is a neat little paper-covered pamphlet, with several illustrations, recently published by the Librairie Horticole, 84, Rue de Grenelle, Paris. As its title implies it deals with flowers from purely a national or political standpoint. As emblems of parties we have often seen flowers chosen by the adherents of some royal house or political faction. The Rose of England, the Lily of France, and the Chrysanthemum of Japan are instances of the first-named, while the Primrose has more recently been adopted by a political party in England. Others, like the Thistle and the Shamrock, are well known floral emblems of our neighbours. Of these and others M. Gibault tells the story in his little treatise now under notice, which may have some interest for those of our readers who have any leaning towards the use of flowers in the direction indicated.

**Maladies et Parasites du Chrysanthème** (par J. Chiffot).—This handy manual, by Dr. Chiffot of Lyons, a well known authority on the subject of plant diseases and insect pests, is also published by the Librairie Horticole of Paris. At most of the annual conferences organised by the French National Chrysanthemum Society there has been a paper read by Dr. Chiffot on the subjects treated by him in this work, and, indeed, the work is practically issued under the auspices of the society, which has also published a large coloured plate to accompany the book, although both are sold quite separately. The preface is by M. R. Gérard, the directeur of the Botanical Garden at Lyons, of which Dr. Chiffot is the sub-director. The body of the work runs into about fifty pages or more, and is divided into three main divisions, viz., Parasites animaux, parasites végétaux, and maladies physiologiques. Further sub-divisions are made, such as parasites of the root, of the stem, of the foliage, of the buds, &c. Remedial measures are given, and the zealous culti-

vator of the Chrysanthemum who can read French ought to have but very little difficulty in recognising any ill that his plants are heir to and in treating them accordingly. Especially so if a copy of the coloured plate is obtained with the book. The author gives black and white illustrations in his treatise, which is certainly the first independent work that has yet been published on diseases of a popular favourite. The rust, of course, is not omitted, and by way of further information the author at the end gives a list of the principal works he has consulted in connexion with the matters under consideration.

## OBITUARY.

### M. BEDINGHAUS.

WE learn with regret of the death of M. E. J. Bedingham, a Belgian amateur, whose gardens at Wondelgem near Ghent contained such fine collections of rare and interesting plants. The splendid specimens of New Holland plants which he showed at the Ghent Quinquennial Exhibitions will be fresh in the minds of many. As examples of good culture they were probably unique. M. Bedingham was sixty-four years old.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

#### DRILL HALL MEETING.

THERE was not quite so large a display in the Drill Hall on Tuesday last as usual, neither was the hall so crowded, but the fact of the meeting being in Easter week was doubtless responsible. Hardy flowers, especially Narcissi, forced shrubs, indoor flowers, among which forced Roses were perhaps most attractive, and Orchids were all largely shown. The Orchid committee gave a gold medal to the group sent by Mr. H. T. Pitt, which included, among many other fine Odontoglossums, *O. crispum* Fred. K. Sander, probably the finest of all the varieties of *O. crispum*. One first-class certificate and four awards of merit were given by this committee. The floral committee gave awards of merit to a new Azalea and other plants, and a first-class certificate to *Clerodendron myrmecophilum*. The Narcissus committee recommended an award of merit to Narcissus Alert from Messrs. J. R. Pearson and Sons, while there were no exhibits at all before the fruit and vegetable committee.

#### ORCHID COMMITTEE.

Present: Messrs. Norman C. Cookson (chairman), James O'Brien, de B. Crawshaw, R. Brooman White, H. M. Pollett, H. Ballantine, Walter Cobb, J. Douglas, Francis Wellesley, W. A. Biley, R. G. Thwaites, H. T. Pitt, A. A. McBean, F. W. Ashton, M. Gleeson, W. Boxall, W. H. Young, H. A. Tracy, H. G. Morris, and H. Little.

In the group exhibited by H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. F. W. Thurgood), *Odontoglossums* figured largely; among them were *O. crispum* F. K. Sander, perhaps the finest variety, a large shapely flower heavily and regularly marked with reddish crimson; *O. c. Abner Hassall*, *O. Pescatorei* Pitt's variety, *O. andersonianum*, *O. c. King Richard*, *O. c. Maud Rochford*, *O. c. Prebendary Bevan*, and *O. c. Britou's Queen*, all finely marked varieties. Other Orchids were *Cypripedium bellatulum*, *Oncidium concolor*, *Cymbidium eburneum*, *Cypripedium lawrenceanum* hyanum, *Anguloa Clowesi*, *Epidendrum sceptrum*, *Sophronis grandiflora*, and others. Gold medal.

Messrs. Sander and Sons, St. Albans, exhibited a very bright group of Orchids, that contained, among others, *Oncidium concolor*, *Zygo-colax amesianum*, *Phaius Norman*, *Miltonia vexillaria* Empress Augusta (a splendid variety, rich rose, with yellow and white eye), *Masdevallia ignea*, *L. c. luminosa* var. *Fascinator*, some good *Odontoglossums*, *Angraecum sauderianum*, *Cattleya Schröderae*, *Chysis bracteescens*, *Cattleya elata*, &c. Silver Flora medal.

W. Thompson, Esq., Walton Grange, Stone, showed some very fine *Odontoglossums*. *O. crispum*, *O. Pescatorei*, *O. Adrianae*, *O. sceptrum aureum*, *O. s. nobilior*, and *O. triumphans* were the chief species represented, and the forms and variations of them were very beautiful. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, showed a pretty group of Orchids that included *Dendrobium Boxalli* (finely flowered), *Lycaste costata* (with eight flowers), *Miltonia Rezili*, *Odontoglossum cavendishianum*, *O. harryanocrispum*, *O. gloriosum*, *Cattleya intermedia superba*, *C. l. alba*, *C. Trianae alba*, a fine plant of *Cypripedium Roebelinii*, *Eria obesa*, *Cypripedium niveum*, and others. Silver Banksian medal.

H. Little, Esq., The Barons, Twickenham (gardener, Mr. A. Howard), showed *Cattleya Schröderae* Little's variety and *C. S. Miss Little*, white, except for the lilac-tinged lip and purple throat.

*Cypripedium Albertonense* Westfield var. and *Cattleya guttata* Prinzi were shown by F. Wellesley, Esq., Westfield Common, Woking (gardener, Mr. W. Hopkins).

J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. Whitelegge), exhibited *Cattleya Trianae* var. *Perfecta* (a large, handsome, well-formed flower), *Brasso-Cattleya Schröderae* alba, and *Odontoglossum excellens* var. *Lowi*.

Messrs. Linden and Co., Brussels, exhibited *Cypripedium Mme. Linden* (*C. grande* X *C. caudatum* Waller.) and

*Cymbidium Lowi* var. *Luciani*, bearing a raceme of seventeen flowers, the sepals and petals green, with brown lines, the lip crimson-brown and white.

*Eriopsis rutiloboulbon* and *Odontoglossum luteo-purpureum* var. were shown by W. C. Walker, Esq., Peru Lodge, Winchmore Hill (gardener, Mr. E. Bunney).

*Cypripedium hirsrianum* Excelsior was shown by F. C. Reider, Esq., The Avenue, Gipsy Hill, S.W. (gardener, Mr. Harris).

A cultural commendation was given W. J. Gurney Fowler, Esq., Glebeclands, South Woodford, for a finely-flowered plant of *Dendrobium wardianum* Fowleri.

Mr. James Douglas, Edenside, Great Bookham, showed *Cypripedium spicero-chamberlainianum*.

#### NEW ORCHIDS.

*Odontoglossum cirrhosum* Pitt's variety. — A large and striking form of *O. cirrhosum*, sepals and petals blotched with brown upon a white ground, with yellow lip. This variety was given an award of merit last year. From H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood). First-class certificate.

*Laelio-Cattleya Mona*. — A hybrid of very pleasing colouring, sepals and petals and lip are of an uniform deep primrose colour, while the throat is a richer yellow. The parents are *Cattleya Schröderae* and *Laelia flava*. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

*Brasso-Cattleya digbyana* - *Schröderae* alba. — An albino hybrid, the result of a cross between *Cattleya Schröderae* alba and *Brassavola digbyana*. There is a faint bluish tinge in the sepals, and the throat is greenish yellow, otherwise the flower is white. The large beautifully fringed lip with the greenish throat is very attractive. From J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. Whitelegge). Award of merit.

*Cymbidium Lowi* var. *Luciani*. — A flower of striking and distinct colouring, sepals and petals green marked with brown lines, the lip white below the column and marked with crimson-brown at the edge. The plant shown bore a raceme of seventeen flowers. From Messrs. Linden and Co., Brussels. Award of merit.

#### FLORAL COMMITTEE.

Messrs. Marshall (chairman), George Nicholson, James Walker, R. Dean, J. Green, J. F. McLeod, W. Howe, R. H. Pearson, J. Jennings, C. R. Fielder, Charles Dixon, George Reuthe, H. J. Cutbush, Charles E. Pearson, J. W. Barr, George Gordon, William Cuthbertson, H. J. Jones, W. P. Thomson, E. H. Jenkins, W. J. James, Charles E. Shea, George Paul, C. T. Drury, and R. W. Wallace.

Messrs. Veitch and Sons, Limited, Chelsea, showed some three dozen plants in flower of *Xanthoceras strobilifera*. The flowers are white with a stain of reddish hue at the base and produced in dense axillary clusters. Some of the plants had as many as a dozen flowering shoots. The effect in the mass was very fine. Silver Banksian medal.

Messrs. William Cutbush and Sons, Highgate, staged a good lot of early alpinies in flower for the most part. We were most struck with the mass of *Shortia galacifolia*, *Primrose* Miss Massey, *Anemone Pulsatilla*, *Puschkinia libanotica*, *Muscari botryoides* alba, very fine; *Epigaea repens*, very charming; *Gentiana verna*, double crimson *Primrose*, very fine, together with a group of *Oncoclytus* Irises. Tree *Præonies* in flower, *Weigelas*, and other flowering shrubs added to the bright appearance. Silver-gilt Flora medal.

Messrs. T. S. Ware, Limited, Feltham, exhibited a fine lot of Clematises, forced plants in flower in pots. A large number of sorts were shown, including *Nellie Moser*, red bar on white ground; *Lord Neville*, dark purple; *Mrs. Jackson*, white; *Beauty of Worcester*, deep blue; and many more.

A large exhibit of forced shrubs from Messrs. William Cutbush and Son included fine examples of *Magnolia stellata*, *M. Soulangeana*, *M. anabilis*, and others in strong force; these were associated with *Azalea mollis*, *Lilacs*, *Prunuses*, &c. Mr. E. Potten, Cranbrook, Kent, had a pot-grown group of *Rose Dorothy Perkins*, together with good examples of *Lady Battersea*, and cut blooms of *Corallina*, *The Bride*, *Innocence*, and others.

Messrs. George Jackman and Son, Woking, had groups of alpinies in boxes, such as *Shortia galacifolia*, *Androsace pyrenaica*, *Anemone Pulsatilla* alba, *Iris Buchanan*, *Megasea ciliata*, *Primula frondosa*, and *P. viscosa nivea* were among the most notable in a pretty lot. Silver Banksian medal.

A fine lot of cut zonal *Pelargoniums* came from Messrs. Cannell and Sons, Swanley, the trusses and the flowers as fine as could be desired. Silver Banksian medal.

Daffodils from Miss Currey, Lismore, Ireland, were quite representative, singles and doubles, bicolors and selfs, all were of good quality. Duke of Bedford, a fine bicolor; King Alfred, Victoria, and a seedling bicolor with strongly rimmed cup were prominent. Maclean, a miniature bicolor, was also noted. Silver Banksian medal.

Messrs. William Bull and Sons, Chelsea, had a group of *Crotons*, *Palms*, *Dracæna Victoria*, *Aralias*, *Dracæna goldiana*, with *Asparagus* and other things.

Mr. Amos Perry, Winchmore Hill, made his first appearance in 1904 with a capital lot of hardy things. Especially good were *Saxifraga oppositifolia*, *Iris reticulata*, *Primula denticulata* alba, *Sisyrinchium grandiflorum*, *Primula rosea*, *Abrietta Perry's blue*; *Scilla bifolia*, *Saxifraga apiculata*, *Tulipa kaufmanniana*, and others. Silver Banksian medal.

The Roses from Mr. George Mount of Canterbury were undoubtedly one of the features of the show. A large number of handsome blooms of a few sorts were displayed. The visitor was face to face with several dozens each of *Captain Hayward*, glowing crimson; *Mrs. Laing*, *Mrs. Sharman Crawford*, and lesser numbers of *Ulrich Brunner*, *Bessie Brown*, and others. Of those first-named we have never seen finer or better coloured flowers. Silver-gilt Flora medal.

Mr. Charles Turner, Slough, contributed a group of Azaleas in pots, one of which, *Temperance*, is of a unique lilac tone, very effective alone but difficult to arrange successfully with other shades, and those of red especially. A batch of *Rose Mme. N. Levasseur* was also shown in flower. The plant

is a capital one for pot culture, and blooms abundantly at 15 inches high.

Mr. C. Dawson, Gulval, Penzance, set up a very choice lot of Narcissi. *Puritan*, a chaste delicate bicolor; *Pilgrim*, a pale form after Katherine Spurrell type, *Weardale* *Perfection*, *Blackwell*, *Cardinal*, *Lucifer*, *Flambeau*, *Torch*, *Red Eagle*, *Blood Orange*, and *Sirius* are all of the rich cupped type, while *Homespun* is a soft pale shallow-cupped *Sir Watkin* and *Kitty Wake* an approach to *White Queen*. A very beautiful lot. Some fine *Primroses* were also shown. Silver Flora medal.

Boxes of alpinies and *Primroses* of various colours came from Messrs. J. Cheal and Sons, Crawley. Among other things *Anemone blanda* and *Omphalodes verna* were very beautiful. *Daphnes* and other shrubs in flower made a suitable background.

*Schizanthus Wistonenis* and *Rose Crimson Rambler* were the chief things from Messrs. Hugh Low and Co., Bush Hill Park, N. Of the former there were some two dozen well-flowered plants, showing much variety of colour.

Messrs. John Peed and Son, West Norwood, S.E., contributed *Auriculas* in variety, with many *Primulas*, *Squills*, *Saxifrages*, *Arabis*, and other things in boxes.

Messrs. Frank Cant and Co., Colchester, had a grand lot of *Roses* in the cut state, such, for example, as *Lady Roberts*, very rich in colour; *Felix Faure*, crimson maroon; *Liberty*, *Perle van Godesburgh*, large white; *Peace*, creamy; *Mme. Hoste*, *Lady Battersea*, *Sou. de W. Robinson*, coppery red, with orange tints internally; *Goldeste*, a finely-formed yellow; and others. *Silver-gilt Flora* medal.

Mr. George Reuthe, Keston, Kent, showed a large array of alpinies in pots, of which we noted *Soldanelles*, *Androsace carnea* in pretty masses, *Shortia galacifolia*, *Primula rosea*, the lovely *Tecophilæa cyanocrocus*, many pots of *Primulas*, and several pots of *Orchis* species. Silver Banksian medal.

Messrs. R. and G. Cuthbert, Southgate, again exhibited forced shrubs. *Azaleas*, *Guelder Roses*, *Lilacs*, and such things were plentiful. Silver Flora medal.

Messrs. B. R. Cant and Sons, the Old Rose Gardens, Colchester, exhibited large and profusely flowered specimens of *Rose Blush Rambler*. Also the new, large, semi-double climbing *Rose Maharajah*, which is not yet in commerce. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, in a large exhibit of forced Narcissi, had *Gloria Muodi*, *Victoria*, *C. J. Backhouse*, *Monarch*, *King Alfred*, *Peter Barr*, *Lord Roberts*, *Weardale*, *Mme. de Graaff*, and *Henry Yilmorin*. *Lucifer*, *Janet Image*, and *Triadurus albus* were also noted. A small exhibit of hardy alpinies was arranged beside the above. Silver Flora medal.

Messrs. Hogg and Robertson, Dublin, contributed a large assortment of Irish grown Narcissi, in which such as *Emperor*, *Sir Watkin*, *Mme. Plomp*, *King Alfred*, *Maximus*, *Princess Ida*, *Horsefield*, and others were seen in good condition. Silver Banksian medal.

Mr. John Russell, Richmond, staged a group of *Wistaria sinensis*, and by surrounding the plants with *Clematises* in pots in several colours, with a background of *Palms*, produced a pleasing effect. Silver Banksian medal.

*Azaleas* and *Clivias* were shown by A. Little, Esq., The Barons, Twickenham, and Messrs. Veitch and Son, Limited, Feltham, had several *Hippeastrums*, a group of *Begonia Agatha*, and a pretty new *Corydalis* (*C. Wilsoni*) from Central China, with glaucous leaves and golden yellow blossoms. *Freesia Armstrongi* was shown by M. C. G. Van Tubergen, Holland.

#### AWARDS.

*Clerodendron myrmecophilum*. — A striking and distinct species, with large, ovate-acuminate, glaucous leaves, oppositely disposed in pairs. The inflorescence is pyramidal in outline. The flowers, which are yellow or pale orange in colour, are abundantly produced in rather close, horizontal whorls on dark stems. As shown the plant was about 3 feet high. From Messrs. Sander and Sons, St. Albans. First-class certificate.

*Azalea Mme. Emile Eckhaute*. — One of the Indian *Azaleas*, with rose and pink, white-edged flowers of good size and substance. From Mr. Charles Turner, Slough. Award of merit.

*Cyrtanthus X Marian*. — This is a hybrid raised by Mr. J. O'Brien, Harrow-on-the-Hill. The parents are *C. lutescens* and *C. angustifolius*. It much resembles the latter in colour and form. The flowers are orange-red, tubular or nearly so, and rather crescent shaped in outline. We believe the stock has passed to Mr. George Reuthe, Keston, Kent. Award of merit.

*Iris Haynei*. — A new species from Palestine that may be likened to *I. atrofusca*, with the exception that the former is of better colour and superior altogether. The warm rosy purple standards are very fine. From Messrs. William Cutbush and Sons, Highgate. Award of merit.

*Clivia Lord Bathurst*. — This is perhaps the most shapely-flowered *Clivia* we have yet seen, both as regards the individual blossoms and the inflorescence. The flowers are pale orange. From Lady Bathurst, Cirencester (gardener, Mr. T. Arnold). Award of merit.

*Primula obconica*. — A white-flowered form, with fringed petals. An award of merit was given to the strain subject to the dispute of any Latin varietal term. From Mr. O. Schneider, Ifield Road, Fulham.

#### NARCISSUS COMMITTEE AWARD.

*Narcissus Alert*. — This is virtually an improved *N. obvallaris*. The flower is very sturdy and strong. It differs chiefly in the greater vigour of leafage and greater constancy. For these reasons it will prove valuable. From Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, Notts. Award of merit.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. T. W. Bates, S. Mortimer, Alex. Dean, Horace J. Wright, Edwin Beckett, H. Parr, G. Reynolds, J. Jaques, J. Willard, J. McIndoe, Thomas Arnold, James H. Veitch, and Owen Thomas.

There were no exhibits before this committee.

# THE GARDEN

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## FRUIT TREE PRUNING.

IT may be said that no work connected with the culture of fruit trees is of greater importance than pruning, since if this is carelessly or wrongly done all other labour may be counted as lost.

For some time past fruit tree pruning has been the occasion of numerous articles and notes in *THE GARDEN*. All our correspondents appear to agree that the desideratum is a tree of a size proportionate to the space at disposal, and that each branch should be "a perfect cordon of fruit-spurs from base to near the other extremity," but are at variance as to the methods best suited to obtain it. The chief point of difference appears to be whether shortening the shoots of an Apple tree (after the shape is assured) does or does not conduce to the formation of fruit-buds. We have lately seen shoots upon Apple trees, where the one year old shoots, *i.e.*, shoots made during the summer of 1903, were left intact, and the two year old wood carried a splendid lot of fruit-buds which will bear this year. On the other hand, however, we have also noticed trees with the shoots thus left unpruned, where two year old wood was almost destitute of flower-buds, and trees whose shoots were partially shortened had, on the contrary, plenty of flower-buds. This experience, then, goes to prove nothing, and we should be glad to hear from fruit growers upon the subject, which is one of great importance to all who cultivate fruit trees, whether in large or small numbers. Below is a letter from Mr. Crump, who is widely known as an experienced fruit grower. We hope shortly to have the opinion of Mr. Norman of Hatfield Gardens, where the Apple and Pear trees are of the finest.

"With pleasure I respond to my generous critic's questions (page 208), the first of which asks: 'How many branches should be retained on an average standard or bush tree?' To this I reply, unlimited, but the number entirely depends upon the variety and the superficial area of head-room at command, but, generally speaking, just as the annual radius of the young tree's branches increases, so in like proportion should the number of stout, strong, well-regulated branches, every one of which should ultimately become a perfect cordon of fruit-spurs from base to near the other extremity, averaging from 18 inches to 24 inches apart throughout. This distance apart of branches will allow the admission of sun, light, and air to the interior of the tree,

and thus preserve healthy foliage, which alone can develop and maintain the fruiting spurs and plump, well-ripened flower-buds year by year on every branch throughout, and which ought to be the most important object in skilful pruning. Any observer can see for himself the results of the opposite system in hundreds of orchards, for, when the interior of the tree is allowed to become crowded with lateral shoots and foliage, the fruiting spurs on the interior branches become choked, consequently die, leaving a lot of objectionable dead wood and lanky, unfruitful branches all through the middle part of the trees.

"The great point is thus to build up the tree by rational extension pruning, so that every leaf shall obtain proper air and light, adding more branches in number as required, and slightly shortened in accordance with the vigour of the specimen in hand and the particular habit of the several varieties considered. In small gardens space is naturally limited and the trees soon fill their allotted space, in which case the aforesaid method must be somewhat modified, and, in order to keep the said cordon branches furnished and healthy, the only way to do so is to run up a fresh shoot from as near the base as possible, periodically trimming away the old spur growth wherever it becomes in the way of the new shoot, removing the old shoot entirely in the course of time, something after the fashion of long rod pruning of Vines, this being in part extension pruning in a restricted space.

"It should be mentioned that no tree can remain healthy and fruitful for long without some extension of wood growth annually. We often see the results of tree pruning of this character where the jobbing gardener is the autocrat of the suburban garden, where the trees make a thicket of strong wood growth in the summer, every bit of which is so-called pruned off in the winter. Such treatment soon brings the trees operated upon into a state of unfruitfulness and chronic debility, with corresponding disappointment to the owner. Mr. J. H. Veitch tells, in that excellent book of his—'Traveller's Notes in Japan'—of the system the Japanese have of fixing a flat wood trellis covering the entire orchard, and laid 'beneath the heads of the trees, only a few feet high, and the branches tied down to the trellis.' This method doubtless gives them high quality, for we know how clever and ingenious the Japanese are and how cheap labour is, but such would not pay in this country for ordinary fruits.

"Question No. 2 asks: 'Why the refusal of certain trees to grow away kindly after careful planting?' I may say I have had similar experience, and in my case was able to trace the cause unmistakably, which was that the said trees had been taken up in the nursery that they had grown in, carried to the 'bays' near to the packing sheds, but where they had to wait for several days, until in the ordinary course of things other goods (part of the order) could be collected from other departments. Whilst thus waiting, and under probable exposure, a frost set in, which penetrated the exposed roots then above ground, and doubtless very serious injury ensued to the roots by this rapid freezing, drying, and thawing alternating.

"Of course, this injury was quite invisible at the time, as the roots all seemed moist and right in their apparent careful packing, but doubtless, as was seen from investigation afterwards as to this failure to grow kindly, the roots had died back some distance from their extremities, and had to push out small, weakly rootlets nearer to the base, but too late to support the earliest started growth of the head shoots and leaves. Hence the serious check to the tree and consequent loss and disappointment, caused solely by the retarded root action. The same thing happened to a larger consignment of English Yews, but at a different period.—W. CRUMP, *Madresfield Court.*"

## DAFFODIL NOTES.

### THE LATENESS OF THE SEASON.

IN spite of the fact that the winter proved remarkably mild—11° of frost being the highest which the exposed thermometer registered here between November 1 and the last day of February—Daffodils are unusually late, and on Easter Day *N. pallidus præcox*, *N. obvallaris*, and *N. Telemonius plenus* were the only ones available for cutting. Last season a clump of the Tenby Daffodil on a sunny bank in the rock garden came into bloom on February 23, while this year this same clump (which has not been disturbed in any way) had but one flower expanded on March 24, or exactly one month later. This tardiness is probably due to the fact that the bulbs were never properly ripened off last summer, and also because the ground during August and September was in such a cold, saturated condition that they did not start into growth as quickly as they would have done under more normal conditions. Varieties which were not lifted last season are not flowering as freely as those which were, and this goes to prove how important it is for most Daffodil bulbs to get a thorough ripening

There appears to be not the slightest doubt that the flowers will lack both colour and quality this season, and, although the trumpet section (as far as I can judge at present) promise to be of fair substance, yet I am rather afraid that the general run of flowers will be weak and flimsy. At the last Drill Hall meeting the Irish growers were complaining much about this.

#### THE NARCISSUS COMMITTEE.

So far there has not been much business for this committee to transact. At the meeting on the 5th inst. there was an interesting collection of flowers from Wisley, which included a gathering of the Hoop Petticoat (*N. corbularia*) varieties: they were interesting as showing how wonderfully these dainty little things thrive there.

#### DAFFODIL ALERT.

It is pleasing to record that an unanimous award of merit was given to an excellent little early Daffodil from Messrs. Pearson of Lowdham. The committee are fully aware of the importance of encouraging raisers to improve the early flowering section, and it is to be hoped that in years to come we may see some really first-class flowers a fortnight before the host of mid-season varieties. Alert, which is the name of this new variety, may be described as an improved form of *N. obvallaris*, with a lighter and firmer perianth and a wider and more reflexed trumpet than that variety. As most people are aware, *N. obvallaris* refuses to grow on some soils, and on the stiff soil at Lowdham Mr. J. D. Pearson informs me that it does not succeed nearly so well as Alert, which is a chance seedling of very strong constitution. Early flowers must necessarily be sturdy and possess petals of good texture, so as to be able to stand the rough weather which is generally associated with the month of March.

#### NEW DAFFODILS.

Notwithstanding the backwardness of the season some very fine flowers were staged at the Drill Hall on the 5th inst. Mr. Charles Dawson, of Gulval, near Penzance, had a highly meritorious collection, which included a number of flowers never previously exhibited. The following is a brief description of the best of these new varieties:—

*Puritan*.—A bicolor Ajax with large, deep lemon trumpet, widely expanded and reflexed at the mouth. Segments creamy white and incurved. A grand seedling from Mme. de Graaff, and opening about ten days earlier than that variety.

*Pilgrim*.—An exquisite Leedsii of the same shape as White Lady, with pointed segments, broad and overlapping, in colour creamy white. Crown longer than in White Lady, crinkled, and bright lemon in colour. A distinct variety.

*Cardinal*.—An incomparabilis of moderate size, with small, deep orange cup and creamy white segments, not overlapping, and tinged with lemon at their base.

*Phantom*.—A very pretty bicolor trumpet of triandrus origin, with wide, pointed, overlapping segments, and bright lemon trumpet, widely expanded, and frilled at the brim.

*Kittiwake*.—A magnificent white Leedsii of large size, raised from Minnie Hume. In this the long crown is of palest lemon and very daintily frilled, while the long white segments closely overlap.

*Northern Light*.—A remarkably beautiful incomparabilis, with wide overlapping segments, resembling those of Monarch both in colour and character. Crown of medium size, crinkled, and of a bright orange. Said to be a hybrid from Lulworth.

*Fair Ladye*.—A small Ajax, with short-spreading trumpet of drooping habit, and stiff, overlapping, pointed segments of a lemon-white colour. Probably a cross between triandrus and a yellow Ajax.

Other lovely things were Siren (Johnstoni), Silver Spray (Leedsii), and Homespun, which was exhibited in such splendid form at Truro last season. As showing how highly this latter variety is esteemed, during the meeting a well-known grower purchased a bulb of it for twelve guineas. One more variety calls for special mention, this being

*Osiris*, which was exhibited by Messrs. Barr and Sons. This is a very large Ajax, growing about 15 inches high, with broad, creamy white perianth, and handsome large bold canary-yellow trumpet, with mouth expanded and elegantly crinkled. It is quite distinct, and if three flowers had been exhibited no doubt it would have received an award.

*Küldermünster*. ARTHUR R. GOODWIN.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

April 19.—Royal Horticultural Society's Meeting (National Auricula and Primula Society's Show).

April 21.—Norwich Daffodil Show.

April 26.—Birmingham Auricula and Daffodil Show (two days).

April 27.—Chesterfield Spring Show.

**Royal Horticultural Society.**—The next show of this society has been fixed to be held at the Drill Hall on Tuesday next, when special prizes will be given by the society for Daffodils, and the annual show of the National Auricula and Primula Society will take place. Mr. George Masse will read a paper on "Diseases of the Potato" at the general meeting of the Fellows to be held that afternoon.

**National Chrysanthemum Society.**—The annual report of this society and schedule of prizes for 1904 is just to hand, and, all things considered, must be regarded as a satisfactory indication of the progress of the society. The contents are similar to those of preceding years, with a few variations, viz.: Report for 1903, financial statement, rules, report of classification committee, awards of floral committee, census of blooms staged at the November show, supplement to the society's catalogue of 1903, report of the deputation to the Lille show, lists of affiliated societies and members, &c.

**Primula megaseæfolia** (Boiss et Bal.). May I call your attention to the incorrect spelling in last Saturday's GARDEN of the name "*Primula megaseæfolia*," a plant which I introduced into England in 1901. Under its correct name I was given an award of merit by the Royal Horticultural Society at their March meeting of the same year. The reason for the spelling of "*megaseæfolia*" is obvious. — E. WILLMOTT, *Warley, Essex*.

**Lachenalia convallarioides.**—This plant, recently noted in THE GARDEN as being in flower in the Cape House at Kew, is an interesting addition to the cultivated Lachenalias, as it is distinct in its short, bell-shaped Lily of the Valley-like white flowers, combined with solitary leaves from 6 inches to 1 foot long, 1 inch broad at the base, narrowing gradually upwards to the apex, and in its delicious and penetrating Heather-like odour. The Kew plants were obtained from Grahamstown four years ago, where they were collected by Mr. C. A. Pym. The buds are of a purplish pink colour. The species is described by Baker as having a globose bulb, a solitary linear leaf, a slender peduncle 4 inches to 6 inches long, the raceme of flowers an inch long, the flowers white tinged with red. He also describes a variety *robusta*, with leaves 4 inches to 7 inches by a quarter of an inch to half an inch. The Kew plants are larger even than this robust variety, but

the difference is probably due to cultivation. They are still nicely in flower.—W. W.

**Windsor and Eton Rose Society.** Mr. W. Tut, Thames Street, Windsor, honorary secretary of the Windsor and Eton Rose and Horticultural Society, writes that the next exhibition will be held on Saturday, July 9, in the grounds of Windsor Castle, under the patronage of their Majesties the King and Queen and H.R.H. Princess Christian.

**Nurserymen's General Hailstorm Insurance Corporation.**—The ninth annual general meeting of The Nurserymen, Market Gardeners', and General Hailstorm Insurance Corporation, Limited, was held at the Registered Office, 41 and 42, King Street, Covent Garden, on Friday, the 8th inst. The chairman, Mr. Harry J. Veitch, presided over a good attendance of shareholders. The premium income for the year amounted to £2,391 2s. 6d. on 34,423,363 square feet of glass. The interest and ground rents from investments amounted to £542 18s. 1d. The business done by the Company in all its branches showed a satisfactory increase, whilst the working expenses were at the ratio of £19 13s. 4d. per cent., a very low one for an Accident Insurance Company. A dividend of 5 per cent. and a bonus of 2½ per cent. were declared, free of Income Tax; £1,480 was carried to the reserve fund, making the reserves £7,500; and £506 2s. 2d. was carried forward. The shareholders expressed their satisfaction at the continued progress and the economical management of the business. Seven claims were paid for damage done by hail during the year in six different counties.

**Saxifraga Elizabethæ.**—This new hybrid is a distinct addition to the number of rock plants already contained in this valuable genus. Forming cushion-like tufts of green foliage as dense and close as the smaller forms of *S. burseriana*, it is very free in growth, quickly forming good-sized plants. Mr. F. Sundermann, of Lindau, in Bavaria, from whom plants were first obtained in 1899, says that it is a hybrid between *S. sancta* × *burseriana*, and was raised by himself. Although it has grown freely, no flowers appeared on these plants till this spring, but now that it has commenced to flower it promises to be as free as either of its parents. With the close habit of *S. burseriana* it is not glaucous like that species, but has the green colour of *S. sancta*, with leafy flower-stems tinged with red-brown, as in the latter plant, 2 inches to 3 inches high. The flowers take the colour of *S. sancta*, but are much larger, approaching in size those of the other parent, three or four in each head. With the constitution of *S. sancta*, added to the size of flower obtained from *S. burseriana*, it should prove a useful and hardy plant. Slugs are fond of it, and many of the growing points were eaten out during the winter.—W. I.

**The National Potato Society and the New Hall.**—We regret to learn from the report made to the executive of this society by the secretary recently that should a Potato exhibition be organised in the autumn, it is not likely to take place in the New Horticultural Hall. Communications were entered into with the council of the Royal Horticultural Society and the directors of the Crystal Palace Company. The former replied that a scale of rates for letting the New Hall was under consideration. The latter made a clear, definite offer at once, which may or may not be accepted. The Crystal Palace offers many advantages to such societies as that devoted to the Potato, but, unfortunately, it is some distance from the metropolis, a matter which causes considerable inconvenience to exhibitors, although, as was seen in the days of the great international Potato shows, they made light of those difficulties, and remarkable exhibitions were held. But there can be no question as to the feeling of disappointment experienced by horticulturists generally, and subscribers to the New Hall fund particularly, in finding that their hopes of the New Hall being a real horticultural home for all special societies is not likely to be realised. If the Dahlia Society felt driven to Sydenham, the Potato Society will probably do the same.

**Royal Scottish Arboricultural Society.**—A meeting was held in Edinburgh on the 6th inst., Mr. Steuart Pothringham of Murthly, president, in the chair. Ten new members were elected. Dr. J. Nisbet was appointed honorary editor of the society's "Transactions," and Mr. A. D. Richardson, Sciennes Gardens, Edinburgh, assistant editor. It was agreed that the University of Edinburgh and the East of Scotland and West of Scotland Agricultural Colleges be invited to confer with the society regarding forestry education with a view to the submission of a scheme to the Scottish Education Department. The arrangements for the annual excursion were discussed, and it was decided that it take the form of an excursion to Perthshire on July 20 and 21, and that the general meeting and conference should be held at Perth on July 22, the members who purposed going to France leaving in the beginning of the succeeding week. The photographs for the St. Louis Exhibition were on view.

**Notes from Baden-Baden.**—Among *Anemone blanda* several distinct varieties have appeared. One has deep indigo-blue and the other purplish pale blue flowers. Both are desirable. A nice companion to *A. blanda* is the as yet rare *A. intermedia*, the citron-yellow flowers of which harmonise well with the deep blues of the former. *Hepatica angulosa nivea* is vigorous in growth, and has sturdy, well-formed flowers; it is superior to *H. angulosa alba*. *H. a. lilacina* is a new variety, which is extremely free. *Chionodoxa Lucilia* also shows variation in form, size, and colouring of the flowers, the latter being lilac, rose, and white. A superior variety is *C. Lucilia alba grandiflora*, the spikelets of this being richer and larger than those of the type; but by far the most remarkable is the lovely *C. amabilis Leichtlini* (Hort.), one of the prettiest spring-flowering bulbs ever seen. It is at least a fortnight later in bloom than the others. The flowers are  $1\frac{3}{4}$  inches across, having broad, full segments of a soft creamy white, with a shade of rosy purple, a colour difficult to describe. It is quite sure to become a favourite. — MAX LEICHTLIN, *Baden-Baden*.

**Countess of Warwick's Secondary and Agricultural School.**—In 1897 the Countess of Warwick, who had been much impressed with the need of scientific education in rural districts, and who saw that the only hope for the improved farming of the future was to begin with the young, bought from the Fitzgerald family the estate and hall of Bigods, a couple of miles outside Dunmow, and there established an unique school, designed to confer a higher grade of education on a district remote from urban centres. The idea of the Countess was, primarily, to benefit this portion of Essex; and, secondly, to give help towards the elevation of the status of farmers' sons and daughters generally. Coming as it did at a time when the educational facilities of towns and cities were being enormously developed, the experiment had wide approval. On the principle that the young sapling is more easily trained than the half-grown tree or old stock, a course of instruction was drawn up which would be suitable for boys and girls of ages varying from twelve to seventeen years. Whilst still so young it was considered undesirable to specialise in one particular subject, and it was therefore so planned that the pupils should receive instruction in the ordinary subjects which would be essential to every boy and girl, whatever path in life they might afterwards enter upon. Along with this, during the three years' course, the elements of the theory and practice of agriculture, horticulture, poultry, dairy work, and bee keeping are also taught, the work becoming more advanced as each succeeding year is entered upon, whilst for the benefit of those who have completed their three years, and for older boys who enter the school with more definite ideas as to their future, there is a special course, which deals almost exclusively with agriculture, horticulture, dairy, poultry, and wood and metal work. The school buildings comprise large, airy class and lecture rooms, completely equipped laboratories, wood and metal workshops, and a gymnasium. Adjoining the school is more than an acre of ground, divided

into experimental plots worked by pupils. One section is laid out as a miniature farm, where the principle of rotation in cropping is shown. Situated in this enclosure is a fully equipped meteorological station, where observations as to the state of the weather are daily taken and recorded by pupils.

**Experimental fruit farms in Sussex.**—It is possible that in time Sussex may prove as great a fruit-growing centre as its neighbouring county of Kent. With Mr. W. Goaring as their adviser the Education Committee of the East Sussex County Council have resolved to prove how easily the Sussex soil can be turned to profit. With the idea of creating and encouraging the cultivation of hardy fruit, the County Council have decided to establish in various parts of the county experimental fruit gardens, where, under the direction of a horticultural expert, cultivation may be made of commercial value. The County Council will obtain plots of land—each about a quarter of an acre in extent—in various parts of the county, and under exceptionally reasonable conditions the villagers will be invited to become holders. Arrangements will be made between the County Council and the property owner as to the supply of trees. But all the plots are to be under the direct control of Mr. Goaring, who holds that the secret of fruit growing is purely a question of treatment of the land and the pruning of the tree. The importance and value of these two points Mr. Goaring will practically demonstrate to the villagers, and, given fair conditions, it is held that a new industry may flourish in Sussex. The places in which the experiments are likely to be first tried are Rye, Hailsham, Mayfield, Groombridge, Frant, East Grinstead, and Heathfield. Much interest is centred in the scheme, which is exceptional in the way of county experiments.

**Sale of Orchids.**—The Warrenhurst collection of Orchids was sold at the Cross Key Room, Grosvenor Hotel, Manchester, by Mr. John Cowan, and the sale was well attended. Some very fine plants were offered of *Celoglyne pandurata*, which fetched  $6\frac{1}{2}$  guineas, 20 guineas, and 8 guineas; a plant with three growths of *Cypripedium insigne Sanderae*,  $4\frac{1}{2}$  guineas; *C. insigne Harefield Hall var.*, two growths, 15 guineas; *C. insigne Millie Don*, 4 guineas; *C. i. cobbianum*, 4 guineas; *C. Chapmani*, 3 guineas; *Odontoglossum crispum guttatum xanthoglossum*, 18 guineas; *O. c. Warrenhurst var.*, 10 guineas; *O. Loochristense Lord Kitchener*, 11 guineas; *O. harrystano-crispum*, 6 guineas; *Laelio-Cattleya Callistoglossa*, 6 guineas and 10 guineas; *L.-C. Henry Greenwood*, 5 guineas; *Cypripedium lawrenceanum hyeanum*, two growths, 29 guineas; *Cattleya Skinneri alba*,  $3\frac{1}{2}$  guineas; *C. intermedia alba*,  $5\frac{1}{2}$  guineas; *C. gaskelliana alba*, 5 guineas; *C. Mantinii inversa*, 15 guineas.

**Amaryllises at Liverpool.**—During the last few years the Parks and Gardens Committee of the City Council of Liverpool have done much to popularise the parks and open spaces under their charge by making special exhibits of various flowering plants arranged in quantity. Of these it appears that the *Amaryllis* is the most popular, for at Sefton Park and the Botanic Gardens the number of visitors exceeded 50,000 during the Easter holidays, the numbers at the Botanic Gardens being: Good Friday, 9,200; Saturday, 3,000; Easter Sunday, 5,300; and Easter Monday, 11,800, or a total of 29,300. A similar number would be present at Sefton Park, which would fully total the number given. The exhibition lasts six weeks, with an average number of bulbs in bloom of 500, being about equal in number at each place. The Palm house at Sefton Park is an admirable place for such an exhibition. There is plenty of room, an abundance of light, with a background of immense Palms and other foliage plants. The position allotted to them at the Botanic Gardens is not so satisfactory, a long, narrow, front stage in the stove being too limited and too formal. More room would be an acquisition, so that greenery could be more freely utilised and the individual flowers more clearly seen. The number of plants is about 2,000 at each place, and they are grown in pots of  $4\frac{1}{2}$  inches to  $5\frac{1}{2}$  inches.

The bulbs are above the average in size, and throw in some cases three spikes, with over a dozen blooms, although it is questionable if four blooms on one spike are not quite sufficient to be seen at their best. Undoubtedly the present exhibitions are the best yet seen, and are highly creditable to Mr. H. Herbert, Superintendent of the Liverpool Parks and Gardens, and Mr. J. Guttridge, superintendent of the Botanic Gardens. Many of the plants have flowers excellent in form, substance, and size, but, naturally, to raise such a large collection in four years must mean that many are lacking in quality. That will be gradually improved upon by selecting from the hundreds of seedlings raised each year, and discarding those that do not reach the proper standard. Alderman Ball, the chairman of the Parks and Gardens Committee, speaks in glowing terms of their magnificent display.—R. G. WATERMAN, *Woolton*.

**Asparagus and frost.**—Few vegetables are more quickly injured than Asparagus. Our forced beds of Asparagus are very much poorer this season than usual, and this I attribute to the severe frost last May, as at that date the growths were well advanced, and they were cut down to the level of the soil. Of course, permanent beds in the open would not suffer so much, owing to the growths being kept cut. In the beds referred to the plants were then completing their growth for another season's work, and I noticed that those from the base afterwards were stunted and poor. In the case of young plants for planting or forcing the same results are found—indeed, if anything, worse. I find some of the roots dead. They refused to make a second growth, but doubtless this was helped in a measure by the excessively wet season. I feel sure the early plants will fail this season to give the usual returns, as the crowns are weaker. This, of course, may only refer to this part of the country, and, I may add, our beds have several times been flooded, so that may have been equally injurious. Still, I think a great deal was due to the fearful weather we had last May.—G. WYTHES, *Syon, Middlesex*.

**Pæonia lutea.**—Though this beautiful Pæony has been known for over twenty years it is still very rare, and was only last season awarded a first-class certificate by the Royal Horticultural Society. There is at present no signs of its becoming plentiful, for in the recent catalogue of M. Lemoine of Nancy it is quoted at 50 francs each. As this Pæony promises to be of great value to the hybridist from its bright yellow colour, it is more than probable that M. Lemoine will employ it largely in this way, and some striking hybrids may in time emanate from the noted establishment at Nancy.—H. P.

**Protea cynaroides.**—The genus *Protea* is an extensive one, but is limited to the African continent, nearly all the species being natives of South Africa. In this country they are by no means popular, and outside a botanic garden are rarely seen. One of the most striking is *P. cynaroides*, which is well grown at Kew, where it is now in flower. It forms a sturdy-growing, sparsely-branched shrub, whose main stem is peculiarly thickened towards the base. The oblong leaves are of a firm leathery texture, while the flowers are particularly striking. They are pink, borne in a crowded terminal head, and surrounded by large bracts suggesting the Globe Artichoke, hence the specific name of *cynaroides*. The bracts are more or less silvery, and this character is particularly noticeable just before the flower opens, when the large unexpanded bud resembles a whitish cone. The treatment required by this *Protea*, and, indeed, all the other members of the genus, is the protection of a light airy greenhouse, little or no shading, and a soil composed principally of sandy peat, combined with thorough drainage, for it needs plenty of water during the growing season, and at the same time much dislikes stagnant moisture. A near relative of the above is the Cape Silver Tree (*Leucadendron argenteum*), whose leaves, especially when grown in the dry climate of South Africa, are intensely silvery, but in this country, even when it succeeds, which is not always the case, this character is less pronounced than in its native land.—H. P.

**The world's bird life passing away.**—The extent to which the slaughter for millinery purposes of beautiful birds is carried is instanced by the report just issued by the Bird Protection Society. At the first sale of the present year in the Commercial Sale Rooms—the central market of the plume trade in London—no fewer than 2,687 birds of paradise were sold. As these birds are restricted to a comparatively small area of the globe, it is almost safe to prophesy their early extinction if fashion continues to call for them. During the year probably 10,000 will come under the hammer. Impeyan pheasants suffered to the number of 1,828. 400 tiny Indian owls were sold for a farthing each. A large number of the Indian owl, Ketupa, a by no means common bird, realised threepence each. Humming birds have been mercilessly butchered to swell the list, 11,440 passing into the hands of the milliner. Despite the outcry against the wearing of osprey plumes, there has been a brisk demand for them, as much as £9 12s. 6d. per ounce being paid. In America feather millinery is not nearly so extensively used as in this country. The influence of bird protection societies and the stringency of laws passed to prohibit the destruction of birds have been so effective that the milliners of New York have pledged themselves not to trade in gulls, terns, egrets, grebes, herons, or humming birds. We have the laws here, but are they enforced?

**Poor quality Potatoes.**—Your correspondent "G. W. S." does not appear to be quite consistent in his note on page 213 on the above subject, for after suggesting that the National Potato Society should work in the direction of getting varieties of better quality, he goes on to say that "it is the cheap imported tubers that are of such wretched quality," so I take it that it is not so much the quality of home-grown Potatoes that "G. W. S." has to complain about after all. I think, however, that the chief aim of the English market grower is quantity, and in a shop the other day I noticed some Potatoes offered for sale of a most unprofitable character to the consumer. Many of the tubers were unwieldy, large, and furnished with such deep eyes that half the vegetable would be cut away in peeling, besides the chance of the huge specimens being hollow in the middle. Speaking from experience, I have no reason to think that last season had any ill-effect on the eating quality of tubers, and mine were all lifted by the middle of September.—G. H. H.

**Roses and Lobelias.**—There have lately been several notes in THE GARDEN upon combinations of various flowers and plants, and I venture to add another which, however, is probably well known to many of your readers, still to some it may not be familiar. The association is that of Roses and Lobelias. The appearance of beds planted with Roses is often considerably detracted from by the surface soil being bare and unsightly, with not a vestige of direct covering. Many, I believe, prefer to have Rose beds devoted to Roses alone, and in the case of some of the stronger growing sorts, which develop into a mass of growth and flowers, I am inclined to agree that this is preferable, but with many I think that a suitable ground covering adds much to the appearance of the display, and it is in this connexion that I venture to recommend Lobelia Erinus, the common blue bedding Lobelia. In the gardens at St. Fagan's, Lord Windsor's Glamorganshire seat, Roses in beds are largely grown, and one year many of the beds in the rosary were planted with Lobelia so as to hide the bare earth. Of course discretion must be used, it is more effective beneath Roses of light shades than associated with dark varieties; with the former I think it associates admirably, the Lobelia grows freely, and soon completely covers the surface of the bed and partially envelopes the stems of the Roses.—A. H. P.

**New Hydrangeas.**—In the catalogue of M. Lemoine of Nancy, just received, three varieties of Hydrangea are announced for distribution, and described as seedlings from the Japanese Hydrangea Mariesi, which has in this country attracted a good deal of attention by reason of its large sterile blossoms. The three new forms, with their descriptions, are as follow: H. Mariesi grandi-

flora, leaves medium, much toothed, large corymbs attaining a diameter of 30 centimètres, normal flowers violet-mauve, large sterile ones measuring 7 centimètres to 8 centimètres across, of a pale flesh colour, the reverse of the petals when fading being suffused with dull red. H. Mariesi lilacina, leaves deep green, paler on the undersides, branches terminated by large corymbiform inflorescences of 20 centimètres to 25 centimètres in diameter, the fertile flowers are of a sky blue colour, the sterile ones, seven or eight in number, are large, toothed, and bluish lilac. H. Mariesi perfecta has large handsome leaves, the centre of the corymb is composed of normal flowers of a bluish lilac tint, while the outside has sterile ones of a clear mauve shade. When one bears in mind the many beautiful plants that we have in years past received from M. Lemoine it arouses a desire to see these Hydrangeas in flower.—T.

## THE ALLIUMS.

(Continued from page 252.)

**ALLIUM PORRUM.**—The cultivated Leek, which is not met with in a wild state.

**A. roseum.**—A native of the Mediterranean region, this species was introduced in 1752. It grows from 12 inches to 18 inches high, and has pale lilac-rose coloured flowers in summer. *Botanical Magazine*, t. 978.

**A. sativum.**—The Garlic, with flat leaves and umbels of white flowers, attended by bulbils. A native of Sicily, and introduced in 1548.

**A. Schoenoprasum.**—Chives is found distributed over a great part of the Northern Hemisphere, including this country. It grows about 1 foot high, and has umbels of purple flowers, which are produced in June and July.

**A. Schuberti.**—This species is remarkable for the great length of the pedicels, which vary from 4 inches to 10 inches in one umbel. A very striking plant, and discovered in the Plain of Jesreel, near Nazareth, by the traveller whose name it bears. Bulbs were received at Kew from Messrs. Herb and Wulle, of Naples, in 1896, and it flowered in an open border in June, 1897. It grows about 2 feet high, has broad leaves, the umbels often attaining a diameter of more than 20 inches. All the numerous pedicels of various lengths bear perfect rose-red flowers of the same size. It has an extended geographical distribution in Western Asia, ranging from Syria to Turkestan. *Botanical Magazine*, t. 7587.

**A. siculum.**—This species has the distinction of having a more powerful and disagreeable scent than any other member of the genus. The leaves are narrow, and the scapes, 1 foot to 3 feet high, bear loose umbels of drooping, bell-shaped flowers. These are green, with purple tips. Also known as Nectaroscordum siculum. It is a native of shady valleys in Sicily and parts of Italy. Introduced in 1832.

**A. subhirsutum.**—A native of South Europe, with more or less hairy leaves and umbels of white flowers with a purplish nerve, on a scape 6 inches to 12 inches high.

**A. Suworowi.**—A tall-growing plant, closely allied to A. giganteum, and found in the Kirghis Desert and in the vicinity of Bokhara, in Central Asia. The leaves are produced six to seven to a bulb, are 1½ feet long by 1 inch broad, and the dense heads of mauve-purple flowers are borne on scapes 2 feet to 3 feet high. Introduced in 1887. *Botanical Magazine*, t. 6994.

**A. triquetrum.**—A free-growing species, rapidly spreading when once introduced, it is now naturalised in many parts of this country.

The stems are three-cornered, and the flowers, which are somewhat bell-shaped and white, have a green keel down the centre of each perianth segment. Frequently not more than two or three flowers are produced in an umbel, their place being filled by bulbils. A native of South Europe. It was introduced in 1789.

**A. ursinum** (Ramsons).—Also naturalised in many parts of this country, and succeeding well in shady woods, it is spread over Europe and Northern Asia, and grows about 1 foot high. The leaves are broad and lanceolate and on long stalks, and the umbels of flowers are pure white. A mass makes an effective display where little else will grow.

**A. Victorialis.**—A rare species, and conspicuous for its broad leaves. The flowers are greenish white in many flowered heads, and on scapes 1½ feet to 2 feet high. From Eastern Europe and Siberia, and introduced in 1739. *Botanical Magazine*, t. 1222.

**A. zebdanuse.**—A free-flowering species, with umbels of pure white flowers after the style of A. neapolitanum. A native of Syria and Armenia, and introduced in 1899.

W. IRVING.

## NOTES ON HARDY PLANTS

### CORYDALIS RUTÆFOLIA.

**R**ESEMBLING somewhat the Turkestan C. ledebouriana in the nature of its glaucous foliage, this pretty little species is more compact in habit, without the long, straggling flower-stems of the former. Other points of difference are the longer pedicels of C. rutæfolia, with a more lax inflorescence and more slender spurs to the flowers. It is seldom more than 3 inches high, and one of the smallest representatives of this genus; it is more adapted for culture in pans than in the rock garden, where, although it is quite hardy, it has not proved satisfactory. The flowers are borne in a raceme, and they are light in colour at first, gradually changing to a rich rose and eventually chocolate-brown with age. A native of the alpine regions of Asia Minor, Syria, and Northern Persia, it has been considered sufficiently distinct to be raised to generic rank under the name of *Cryptoceras pulchellum*. There are, however, no satisfactory reasons for its separation from the genus *Corydalis*. It blooms at the end of February, and the flowers last for a considerable time. W. IRVING.

### CROCUS CANDIDUS.

A few bright days, too long delayed for a lover of the Crocus, have induced many Crocus species to open their flowers. One of the most attractive of the Crocus species now in bloom is C. candidus, which, planted in clumps, along with C. imperati and some of the yellow forms of C. aureus, have a fine effect in the garden. It is a fair-sized and beautifully-formed species, with lovely white flowers when open; the anthers and filaments are orange. When closed the flowers are either white, white suffused with purple, or feathered with the same colour. Mr. Maw figures both the forms suffused and feathered with purple. The former was first found by Dr. E. D. Clark on Mount Gargarus in 1806, but the specimens were lost for more than half a century. The latter was figured by Mr. Maw from specimens collected by Dr. Kirk at Renkioi, near the Dardanelles, which were seen by Mr. Maw in the herbarium of the Edinburgh Botanic Gardens.

The form in my garden, obtained from two different sources, is that of Dr. Clark, and, in my opinion, the most beautiful of all. "Suffusion" hardly describes the graining of the colour on the exterior of the flower, while "purple" hardly seems to give an idea of the delicacy of the tint on the outer segments. It is a lovely Crocus, and one

which should be secured by all who are admirers of this flower. There can be no question about the hardiness of *Crocus candidus*. S. ARNOTT.

### ANEMONE BLANDA FLORIZEL.

THE Greek Windflower is one of the most delightful of early flowers, and we rejoice when we see it open its starry blossoms above its prettily cut leaves. There are many forms of this flower, and, as is well known, some are much superior to others. We owe Florizel to Mr. James Allen of Shepton Mallet, who selected this variety. In a note which accompanied the plant Mr. Allen so kindly sent me, he says it is "the finest I have seen," and one can only quote his words and express agreement with them. The flowers are both large and beautifully formed, while in respect of colour they are superb, being of a rich and deep blue. I have had it since August, 1902, so that it has flowered with me for the second time this season. Compared with all the forms of *A. blanda* I have grown it possesses qualities which mark it as superior to any other of its colour. S. ARNOTT.

### IRIS STYLOSA.

THIS has been in flower since November; it grows like a weed here, but if planted in rich soil it makes too much foliage. In a bed of several hundred plants there is considerable variation in colour and marking of the flowers.

*Killerton Gardens, Exeter.*

J. COUTTS.

## THE ROSE GARDEN.

### ROSE ARCHES AND THEIR MANAGEMENT.

(Continued from page 251.)

LOOKED at from almost any point of view, there can be no gainsaying the fact that liquid manure is the cleanest, quickest, and most advantageous form of feeding Roses. By its use we do away with all the dirtiness and unsightliness of stable or foal yard manure, and as Rose arches are usually placed in conspicuous positions, this is a great consideration. Of course, I do not intend to say that climbing and all other Roses are not benefited

by a mulch of manure, but there can be no real beauty in gardens as long as people will insist in coating the ground around their Roses just like they treat their Strawberry beds. One does not object to the use of well-decomposed manure in autumn for mulching purposes, and in the spring this may be hidden by a light carpet of *Violas* or other low-growing flowers, which will keep the ground beneath cool and open and in no way interfere with the practice of giving liquid manure. May and June are the months I generally choose to feed my climbers in this way, selecting a cool evening and as soon as possible after rain. The application of liquid manure after July is a mistake, as it generally results in causing the plants to make shoots which do not have time to ripen unless the autumn is a particularly favourable one.

#### ANOTHER MISTAKE

is to give liquid manure while the plants are at rest. I am well aware that this is recommended by several high authorities, but my own experience is against it. My chief objections are, firstly, because the plan is a wasteful one; and, secondly, it is apt to cause injury to the plants by stimulating them into growth too early. Dealing with the first objection, I cannot do better than quote Mr. Foster-Melliar, who, in his "Book of the Rose," strongly advocates the use of liquid manure, and remarks that "Roses drink but cannot eat." Liquid manure is the most efficacious and quick acting of all manures, simply because the roots, instead of having to go in search of their food, have it brought to them in a condition best suited to their requirements. When, therefore, this mode of manuring is adopted, it should only be carried out either just before the plants start into activity or when growth has already commenced. By means of an autumn mulch, the soluble part of which is gradually washed into the ground by rain, we can supply the roots with all the sustenance they require through the winter. But if instead we apply liquid manure about Christmas, as I have seen advised, most of it, especially on light soils, is lost, because the roots are only in a semi-active condition and cannot absorb it. As to the second objection, it is, from my point of view, a more serious one. I live in a valley where

#### SPRING FROSTS

are very prevalent, and every rosarian knows what irreparable damage is wrought by these to all kinds

of Roses, and more especially to the summer-flowering climbing Roses, most of which form their buds very early. *Aglaia*, *The Dawson*, and such-like Roses frequently get damaged here, and my one object, therefore, is to avoid pushing them into growth too early. On that account I avoid giving any liquid manure until the last ten days of May, and except for those who are fortunate enough to live in a district where spring frosts do not often occur, this method is undoubtedly the safest to pursue. In connexion with this subject there is one more point about which enquiry is frequently made to which I wish to refer. This is as to whether it is advisable to give liquid manure the first year after planting or not. Well, here again there exists a slight difference of opinion. The reply generally given to this question is "No, it is unnecessary." I cannot, however, quite fall in with this view, because there are very often times when it proves wrong. For instance, where an arch has been planted with identical varieties, both of which are of equal size and have been given the same soil and treatment, we frequently find that one plant will outstrip the other. It may be, perhaps, that this is caused by position and the fact that it gets more sun than the other. But whatever the cause this is annoying, because half the beauty of an arch depends upon the way it is clothed, and any unevenness of growth will cause it to look lop-sided. The great point, then, is to ensure

#### REGULARITY OF GROWTH,

and if one plant is found to be lagging behind the other the first season after planting there should be no hesitation in encouraging it with a little *weak* liquid manure. A great deal depends upon the way the plants are treated the first year, and unless they grow freely there is not much likelihood of success afterwards. I have known cases where, in spite of every care in cultivation, one individual plant will have a stunted and unhealthy appearance, and when this occurs the best thing is not to waste time tinkering with it, but to replace with a healthy one as soon as possible.

#### PRUNING.

Provided this is not thoroughly understood, all the labour of soil preparation may be counted as lost. The subject is a never-ending one, but I will do my best to make it clear in as brief a manner as possible. The first trap that the unwary amateur usually falls into is in buying those selected 3 feet to 6 feet plants from the open ground, which my nurserymen friends tell me are those most sought after. I have nothing whatever to say against these—in fact, I always choose them myself—but at the same time they are frequently the source of much disappointment. The temptation to tie their long shoots up to the arch is irresistible to the beginner, who fondly imagines that by so doing he is scoring over a friend who has only purchased small, young plants. I know that this was my idea when first starting Rose growing, and how I scorned the advice of a friend to "Cut those climbers down to the ground the first year!" But we all have to learn, and although this warning will be needless to the "old hands," yet there may, perhaps, be among readers of *THE GARDEN* beginners as "green" as I once was, and to them I would say by all means buy these strong plants, but cut them down to 1 foot from the ground the first season. This will strengthen the plants by equalising the balance of growth between root and stem, and some good, strong, sturdy shoots from the base of the plants will be the result. As regards ordinary pruning, avoid it as much as possible. Cut out old worn-out or frost-injured wood, and always make a practice of trying to lay in some new shoots from the base of the plants every year. Of course, some varieties, such as *Mme. Bérard*, cannot be induced to break from



AIMEE VIBERT AND OTHER ROSES OVER GARDEN ARCH.

the bottom. Such Roses should be avoided on arches or grown in conjunction with another variety which has not got this bad habit. Never hesitate when a variety looks worn out and leggy to cut it right down to the ground. A season's bloom or more may be lost, but the plant will be healthier and produce more flowers afterwards. Unripe shoots should also be cut hard back. Many established climbing Roses are ruined by being overpruned, and Mr. William Paul, in "The Rose Garden," tells us that "when a climbing Rose is full grown close pruning is not advisable, for the object here, as in pillar Roses, is masses of bloom." It is impossible to lay too much emphasis on this point.

A. R. GOODWIN.

(To be continued.)

## THE FLOWER GARDEN.

### THE CACTUS DAHLIA FOR EXHIBITION.

**H**AVING considered the propagation of the cuttings right through till ready for planting out, we now give our attention to

#### THE OLD TUBERS.

Although in many ways not so suitable for the production of exhibition flowers as plants from cuttings, there are some qualities to be found in them which for certain purposes, and in conjunction with young plants, make a few of them, when well grown, of considerable value. One of the most useful features of old roots is their early flowering, and, in fact, very often it is only the early blooms which are really first class; and so where a large number of Dahlias are grown, and especially if one wishes to compete at both early and late shows, there is no better plan than relying on the old roots for the first shows and the plants for the later ones. If it is thought too tedious to pot them, they may with equally good results be placed in their permanent quarters at once. Our usual course is to let the tubers get well started, so that we can see the situation of the eyes, and then part them, always getting at least two or more tubers with fibrous tufts of roots at the end, with a shoot or two well connected to the tubers. These may remain a day or so to heal, and then be planted. Holes should be dug out and well rotted manure mixed in, say two gallons to each, and, having filled in some of the ordinary garden soil for the root to rest on, fill in round it and leave the crown about 2 inches below the surface. If time is precious and work pressing the tubers may be put in as above in practically unworked ground, and the soil made suitable later on. On the other hand, the old roots may be parted and potted. I have more than once seen cutting off of the tubers advocated, or rather trimmed off to fit the pot. In my opinion this is a very bad plan indeed. It is far better to cut off the old root in such a way as to ensure each strong shoot having one or more whole tubers attached, and then when potted the young roots will sprout out in batches. At the same time any long ugly tubers or partially broken ones may be cut off. Almost any fairly good soil will do with which a fifth part of sifted coal ashes is added. The potted roots may be placed in a frame where they will make strong sturdy plants. One of the most frequent mistakes where Dahlias are divided and potted is getting them too early and letting the roots become matted. Leave them till later, and then plant them. Only those sorts which have flowers of good depth should be selected.

#### THE BEST VARIETIES FOR EXHIBITION.

The best Cactus varieties for exhibition are as follows: Ajax, orange; Britannia, pale rose; Columbia, red, tipped white; Clara G. Stredwick, bright salmon; Iceberg, purest white; Etna, a shade of lilac; Florence, yellowish orange; F. H. Chapman, dark orange; Galliard, scarlet; H. J. Jones, yellow, shaded at tips with rose; H. F. Robertson, pure deep yellow; lanthe, buff,

blended rosy pink; Ida, yellow; J. H. Jackson, maroon; J. W. Wilkinson, crimson-purple; J. Weir Fife, purplish maroon; Lord Roberts, creamy white; Mrs. Crowe, light yellow; Mrs. Winstanley, orange-scarlet; Mr. Seagrave, rosy purple; Mrs. Carter Page, crimson; Mabel Tulloch, pink; Princess, violet, with suspicion of rose; P. W. Tulloch, light salmon-red; Phineas, crimson; Prince of Orange, orange, shaded; Richard Dean, red, tipped white; Raymond Parks, light crimson. In addition to these there are the new certificated varieties of this year, but of course it is impossible to say anything about these; but perhaps as many readers may not be members of the National Dahlia Society, I will give the names of those sorts which were awarded a first-class certificate by that body last year. These were—I quote from the National Dahlia Society's schedule: Comet, pink ground, striped and speckled crimson; Dainty, lemon yellow, shaded pink, tipped gold; Florence M. Stredwick, pure white; George Gordon, yellow base shading to orange; Hereward, white striped and speckled crimson; H. W. Tillem, vermilion-red; Mrs. H. L. Brousson, pale yellow ground, shaded salmon; Mrs. J. W. Wilkinson, deep rosy pink with lighter centre; Pearl, rich pink with lighter tips; Rainbow, light pink; Sirius, yellow ground, thickly striped, and speckled crimson; Sweet Mell, deep pink with paler centre.

It will be seen that in many cases the new sorts are of pink colouring, a fact which is worth the notice of exhibitors, as these are very telling in competition; but I am afraid the price is prohibitive to the majority of growers. This year the usual price for a plant is 7s. 6d. Still, some who wish to be cup winners will no doubt speculate in new ones more or less, and the first-class certificate of the National Dahlia Society is the hall-mark of merit.

#### THE QUANTITY TO GROW.

We must now decide the sorts to grow and the quantity of each, a most important question in exhibiting if one wishes to exhibit in the bunch classes, either threes or sixes. It is useless disguising the fact that a very large number of plants must be grown to cut even nine threes on any given morning, and at first sight probably the number of plants will appear out of all proportion to the blooms required. It is one thing to go round a Dahlia bed and casually inspect the flowers which hang in abundance, and another to cut three flowers of a sort fit to stand in competition at noon the following day. Taking, then, this fact into consideration, grow from sixteen to twenty sorts three or four of each, to ensure being in good trim for any show of importance. I give these numbers for nine threes, and, of course, anyone can add or otherwise in proportion. Whatever is grown, be sure to have sufficient of each sort, and not a large number of sorts one of each, or on the fateful show day it will be found that there is a bloom of this, and two of that, and so on, but barely a good three of one variety anywhere. Gardeners and amateurs should not aim at a big class, when the same energy expended intelligently on a smaller one would result in a first prize. If, in conjunction with the bunch classes, the grower tries to win in the single bloom division as well, a few additional sorts, one of each, may be grown, and here a few plants of the newer varieties are useful, and possibly with good cultivation there may at times be three flowers on a plant all first-class. Before leaving this portion of the work, I strongly advise the exhibitor to purchase the plants in good time, so as to set them strong before planting time, instead of leaving it till the minute they are wanted, and then find that flowers cannot appear in time for the exhibitions. Plants obtained in early May ought to be, with reasonable care, strong by planting time. As soon as the plants arrive from a nursery pot them into 4½-inch pots in a good fresh compost, and keep them somewhat warm and close for a few days until they have started, and then put them into the frame. As a rule, plants from a nursery have probably been earlier in the season in rather more heat than those at home, and must be treated accordingly.

EXHIBITOR.

### THE DOUBLE CRIMSON PRIMROSE.

PROBABLY the rarest double Primrose is the Double Crimson, or Pompadour, *i.e.*, *Primula acaulis rubra* fl.-pl. In the intense velvet crimson of its flowers, the latter attaining to the size of a crown piece under the highest cultivation, the variety has no equal, and is much prized when in good condition. In most English gardens the plant is short lived, yet it can be grown to the highest excellence if properly treated. In some parts of Ireland, and possibly also of Scotland, favoured localities have been found where this remarkable form will grow fairly well. It would appear, however, that even in the most favoured places no large tufts are to be found since frequent—*i.e.*, annual or biennial—division is necessary to vigorous growth, which is in no degree less than in others; indeed, the crimson form would appear to possess a greater vigour than some, and its unsatisfactory condition may be attributable to other things.

For some years I grew it in large numbers, and I have never seen such vigour, or even approaching it, as resulted from the special treatment I then adopted. My object was plant production, and in any fresh batch of plants received, beyond proving their identity, no flowers were in the first season permitted to open. As part of the special treatment given, a pit frame in a low-lying position, receiving the thin shade of distant trees, was selected, and old potting soil 1 foot deep, a free mixture into which peat, loam, and the general mixture from various departments entered, was thrown in. Before the soil a heavy layer of cow manure was placed in at 9 inches deep. The plants in March or early April were cut up into single crowns and replanted at 6 inches apart. A plant strongly enforced was the burying of the plants much deeper than before, to ensure bringing into active use the many roots issuing from the upper portion of the trunk-like root-stock. Spare lights were used to cover the plants, and were more strictly used for this purpose during summer. Watered liberally and freely when in growth, and in summer given a good shower bath each evening, a greater vigour was presently assured by watering the plants overhead with weak liquid manure and soot water combined; this was given twice weekly. During summer hardly a ray of sun reached the plants, and in their low-lying pit, often saturated by heavy rains, and with the treatment I have detailed an amazing vigour and growth resulted. The greater proof came in the spring ensuing when the huge and finely-coloured flowers, often larger than a crown piece and very full, appeared in such numbers. This may certainly appear a lot of trouble to take with a Primrose, yet the means I now advocate produced the richest display of flowers I have known. I have heard it stated that this plant especially dislikes manure. This must be mere fancy, however, when by the treatment I have cited above the plants may be made to develop so strong a vigour. It is so simple, too, that anyone may test its worth. Above all, it is one way of growing this exceptional plant to perfection.

Hampton Hill.

E. H. JENKINS.

## TREES AND SHRUBS.

### RHODODENDRON TRIFLORUM VAR.

**A** DISTINCT form of *R. triflorum* has recently flowered at Kew, the growth being quite different from that of the type, while the flowers are similar in size, shape, and colour. Seeds of it were sent to Kew in 1901 by Mr. Barr, who described it as a pretty hardy Rhododendron. *R. triflorum* is a Sikkim species 8 feet or more high, of somewhat loose growth, and with small twiggy branches. The leaves are broadly lanceolate, 2 inches long, deep green above and glaucous beneath, the flowers being pale yellow and nearly 2 inches across. The variety is very compact, and is at present from 2 inches to 4 inches high. The tiny plants have blossomed freely, and the flowers are quite as large as those of the type. At present it looks as if it will never grow higher



than a few inches, its flowering so freely when very young favouring that idea. If it should prove perfectly hardy it will be useful for the rock garden. W. D.

### PARROTIA PERSICA.

Two species of *Parrotia* are in cultivation in gardens—*P. jacquemontiana*, a native of Kashmir, still very rare; and *P. persica*, of Persian origin, which is more often met with. Like several other members of the order Hamamelidæ, the flowers are attractive though small, those of the Indian species being remarkable for the large bracts, and of the Persian plant for the bright red anthers. Though more inclined to form a bush, *P. persica* can with a little training be coaxed into attaining the dimensions of a small tree with a fair-sized trunk. The leaves are more or less ovate, and turn in autumn to rich orange and red tints. The flowers appear during March, each one being about 1 inch across, and containing upwards of 100 stamens, the red anthers of which are very effective, especially on a sunny day. When planting this species it is advisable to provide a place where it will not be injured by cold north or east winds. Light loamy soil suits it well, but it must not be expected to grow very fast when young. Near the main gate at Kew a specimen is now in flower. W. DALLMORE.

### ARALIA SPINOSA.

THIS shrub, which was illustrated in THE GARDEN (page 235), has always been somewhat of a puzzle to me, and I notice that the different writers are rather vague as to the points (if any) which separate it from its Chinese representative, known usually in gardens as *Dimorphanthus mandschuricus*. Turning to the "Kew Hand List" for elucidation, I see the Chinese plant is referred to as *Aralia chinensis elata*, with the synonyms of *Aralia mandschurica*, *Dimorphanthus elatus*, and *Dimorphanthus mandschuricus*. Three varieties are given, viz., *albo-marginata*, *canescens*, and *pyramidalis*. The North American *Aralia spinosa* has no synonyms in the list in question. There are numerous fine specimens scattered about the gardens at Kew which are each autumn of great beauty. Without being able to distinguish between *Aralia spinosa* and *Dimorphanthus mandschuricus* as usually grown in gardens and nurseries, I have noted the following distinct forms—*albo-marginata* or *variegata*, which has attracted much attention within the last two or three years. In this all the leaflets have a clearly defined edging of white. The variety *pyramidalis* is a curious dense-growing form, which originated in the nursery of MM. Barbier, Orleans, France, so long known as Transon's nursery. Besides these there is *canescens*, which I do not know. There is, however, a specimen at Kew in the dell near the flagstaff which is quite distinct from that generally grown. It has been suggested to me that it is probably the true *Aralia spinosa*, or it may be the variety *canescens* above mentioned. The individual in question is more compact in growth, which extends even to the flower panicles, and the leaves are somewhat glaucous. It is—at least, from my point of view—a very desirable *Aralia*, and in this respect I do not stand alone, for in a walk around the gardens of Holland House some time since I noticed a specimen of it there. Though Mr. Dixon, the gardener, could give me no distinctive varietal name, he concurred in the opinion that it was the best of its section.

Some years ago in THE GARDEN, Mr. Bean, in an article on "Hardy Shrubby Araliads," in reference to this group, said: "The true North American *Aralia spinosa* is not common in gardens, having given place to the Manchurian plant (here described as *Aralia chinensis*), which is hardier. *Aralia chinensis* (*Dimorphanthus mandschuricus*).—The leaves of this are bipinnate, like those of *A. spinosa*, and of the same or greater size. The leaflets, however, are broader and more coarsely serrate than those of the American plant, and also more glaucous and pubescent on the lower surface. These are the chief points of distinction." Though there may be differences of opinion as to the

correct nomenclature of this *Aralia*, there can be none as to its striking appearance when well grown and crowned with large, branching panicles of blossoms. A fairly sheltered position and a moist soil suit it best, but it will hold its own under very different conditions. T.

### ILEX AQUIFOLIUM VAR. HANDSWORTHENSIS.

In my notes on "Evergreen Hollies," on page 146 of the present volume, I described the variety *handsworthensis* as one of the "silver variegated varieties." The Holly I had in mind was the fine one known as "Handsworth New Silver." This was described as *handsworthensis* by the late Mr. Thomas Moore in the *Gardeners' Chronicle* for 1875, Vol. IV., page 741, and a figure was given. His name as there applied has been used in the Kew collection. I am indebted to Mr. Atkinson of the Handsworth Nurseries for pointing out to me that this is wrong. The true *handsworthensis* is a variety with small green leaves, not in the least like the variegated plant; it was raised in the Handsworth Nurseries, where the original specimen still stands. On looking over Moore's mono-

graph again I found, curiously enough, that he had called the true small green-leaved variety "handsworthensis," but, overlooking this in a later part of his monograph, had used the same name again for the variegated form. This, of course, explains the confusion. The "Handsworth New Silver Holly," if it requires any other name, may be known as "handsworthensis argentea." The green-leaved variety may be described as follows:

not whether in city or country, the growth is satisfactory. Its very good appearance near cities is in a great measure owing to its doing so much better than other varieties in similar situations, and this good doing is no doubt due to its thick leaves, enabling them to withstand the smoke and dust associated with such localities.

This Rose makes an admirable hedge for a boundary line; it is so hardy, so bushy, and so ornamental in leaf, flower, and fruit. It needs but little trimming, only enough to keep it in place, as the plant's habit is to grow bushy and not tall. As a hedge it becomes so broad and bushy in time that a wide space must be allowed it when set. The plants could be set red and white flowered alternately if desired, as both grow exactly alike.

Propagation of these plants is carried on by layering, by seed sowing, and by cuttings chiefly. Layering is always a sure way, but seed sowing is the best of all. Gather the large pods in winter, pound them until the pulp can be washed away from the seed. Then preserve the seed in damp soil in a cool place until spring, sowing it then outdoors as early as possible, and every seed should grow. It is true that *Rugosa* Roses give us their best display of flowers in June, but all through the



WAHLENBERGIA SAXICOLA.

summer at intervals there are blossoms appearing, even to the last day of autumn. JOSEPH MEEHAN, in *Florists' Exchange* (New York).

graph again I found, curiously enough, that he had called the true small green-leaved variety "handsworthensis," but, overlooking this in a later part of his monograph, had used the same name again for the variegated form. This, of course, explains the confusion. The "Handsworth New Silver Holly," if it requires any other name, may be known as "handsworthensis argentea." The green-leaved variety may be described as follows:

*Handsworthensis*.—A Holly of neat and rather dense habit, with small green, stiff foliage, rather closely set. The wood is purplish on the most exposed side. The leaves are 1 inch to 1½ inches long and three-quarters of an inch or so wide, of a dark and very lustrous green. The margins are set with numerous slender, but stiff, spines.

W. J. BEAN.

### RUGOSA ROSES.

ALTHOUGH the value of the *Rosa rugosa* has been recognised since its introduction, now a good many years ago, it is rarely that any introduction maintains its popularity to such a great degree as this has up to the present day. Its well doing everywhere is the main cause of this. It matters

### MOUNTAIN FLOWERS OF NEW ZEALAND.

I HAVE sometimes felt surprise when I observed that apparently none of our New Zealand *Celmisias* were in cultivation in Britain, where rock gardens are numerous and extensive. In the colony the taste for alpine is only beginning to develop, and rock gardens are few and small. Yet some of our mountain plants have been grown in gardens with more or less success for years. Many people have a plant or two of the Mountain Lily as it is called (*Ranunculus Lyallii*), or the yellow *R. insignis*, and several of the *Celmisias*, or Mountain Daisies, more particularly *C. verbascifolia*, *C. coriacea*, and *C. Holosericea* are not infrequently

to be met with, as are some of the *Ourisias*, such as *O. macrophylla*, with its handsome trusses of white flowers forming a spike 1 foot or 1 foot 6 inches in height, or the mossy-like *O. cæspitosa*, with its compact, bright green foliage studded with its pure white flowers, each on a separate stemlet just rising above the green cushion of the plant. Most of our mountain plants, if grown under suitable conditions, should be hardy in Britain. Damp is more fatal to them than frost, and when the two are combined the plants will be killed by the frost at a temperature much higher than they will stand in their native habitat, though perhaps, when the thermometer is at its lowest, they are there snugly tucked away under several feet of snow. As an illustration of the evil arising from a damp situation, which is well known, I may instance my plant of *Celmisia Hectori*, which was growing in a very dry situation on my rockery, the bright silvery rosettes of which came quite scathless through our recent severe winter, whilst a friend who had several of the same plants in the open ground lost them all. Some of the *Celmisias* are more amenable to cultivation than others, and so far as my experience goes I have found *C. petiolata* (formerly *C. Rakiura*) one of the easiest to grow. It has dark green, somewhat drooping leaves, covered on the under side with a thick brownish tomentum. The ray florets are rather short, but the plant is worth growing. *C. verbascifolia* is decidedly the handsomest of the genus, and is not difficult to grow. It is a very striking plant, with grey-green leaves about a foot or rather more in length, white on the lower surface, from amongst which rise the flower-stems, each crowned with as handsome a Daisy as one could desire to see, sometimes as much as over 3 inches across. The narrowness of the petals in proportion to their length renders it a distinct and pleasing flower. The number of species met with in New Zealand is legion, and the list is continually being added to. Some are very local, and one might almost say that every mountain range has its peculiar species, though others are of wide distribution. The habit of growth varies greatly. Most of them grow in a tuft or bunch, of which *C. coriacea* may be taken as an example. Its stiff, pointed silvery leaves growing regularly from a common centre render it a pleasing object, even when not in bloom. Its flowers, however, are not quite so handsome as those of some other species. Some of the *Celmisias* are of a trailing or creeping habit, as *C. Lindsayii*, which drapes the rocks at the Ruggets, on the south-eastern coast of this island. This species is easily grown, and as it roots along its trailing stems it soon forms a large mat. Others, such as *C. prorepens*, of which more anon, creep under ground. That such plants are not always obtainable without difficulty may be gleaned from the following short account of an expedition to gather mountain plants which I undertook in December last with two friends.

Our destination was the Rock and Sillar range, a mountain chain in Central Otago, which has an altitude of nearly 5,000 feet at its highest point. We were driven from the hamlet of Middlemarch to the base of the mountain in the early morning, and commenced the ascent before eight o'clock. A light mist hung halfway up the range, and everything promised a hot day, so some of us discarded our vests, which we left in the buggy before beginning our climb. We were soon amongst the flowers, though they were nearly all small and of dwarf growth. *Pratia angulata*, a plant named in English catalogues, was in flower amongst the tussocks on the lower slopes. We soon left it behind, but *Ranunculus Novæ Zealandiæ* accompanied us higher. Its flowers are not so large as those of the British Butter-

alone we found eight species, some of them insignificant, others very fine. Most of the plants in flower were low growing, but the base of the mountain was bright with the yellow spikes of *Anthericum Hookeri*, commonly called the Maori Onion. It is also known as *Chrysobactron Hookeri*; and "thereby hangs a tale." Once when sending a small order for plants to Holland I ordered amongst other things this *Chrysobactron*, which was described as "a fine, hardy herbaceous plant of recent introduction, rare, and exceedingly telling as an exhibition plant." When the plants arrived the majority of them were dead, but the *Chrysobactron* was alive and wore a familiar appearance. I carefully planted the survivors and watched them with interest, and at last the *Chrysobactron* developed into the common

Maori Onion. Another pretty little lilaceous plant we found in flower was *Arthropodium candidum*, which, with its grasslike leaves and delicate drooping bunches of flowers, is a little gem in its way. The yellow *Oxalis corniculata* and its white cousin *O. magellanica* were both in flower, as were the New Zealand Bluebells *Wahlenbergia saxicola* and *W. gracilis*. Though popularly so-called, they have only a faint bluish tinge, and are often pure white. The pretty little *Lagunea tetragonum* was past flowering.

Dunedin. A. BATHGATT.

(To be continued.)



LAGUNEA TETRAGONUM IN NEW ZEALAND.

cup, but are plentiful and quite sessile, so that in places the ground was begemmed with golden stars. The pretty little *Lobelia linneoides*, with its white flowers borne on thin little reddish stems, was tolerably plentiful, whilst ever and anon we came on large patches of that pretty little lilaceous plant *Herpolirion Novæ Zealandiæ* in full bloom. Its flowers, which are usually of a most exquisite shade of blue, were nearly all white. They may be described as absolutely destitute of stalk, but their little cups nestling among the grassy leaves had a peculiar beauty of their own. Space would not permit an enumeration of the various plants met with. Of *Celmisias*

age, and flushed externally with irregular patches of ruddy brown. It is never entirely brown, as in *L. Brownii*; when grown in shade the brown colouring is not developed, and patches of citron-yellow take its place. Very fragrant; a very beautiful Lily of sterling worth. Common in cultivation. Flowers in July.

CULTURE AND USES.—The treatment of this plant is the same as for *L. Brownii*.

*L. Kelloggii* (Hort. Purdy), Kellogg's Californian Martagon Lily.—A pretty and exceptionally dainty species from the Humboldt County, California, and newly introduced to cultivation. Bulbs small, laxly ovoid, the size

## THE LILIES.

(Continued from page 260.)

### LILIUM JAPONICUM.

VAR. COLCHESTER-ENSE (Hort. Wallace).—Another beautiful Lily allied to *L. japonicum*, with bulbs 6 inches to 10 inches in circumference, white, composed of thick fleshy scales almost rounded at their tips. The growing point of the bulbs is much depressed. Stems purplish below, 3 feet high, stout and erect, rooting freely from their thickened bases. Leaves broadly lance-shaped, broadest at the tips, edged brown, the brown lines continuing for some distance down the stems, 3 inches to 6 inches long. Flowers well shaped, 9 inches long, 6 inches across the funnel, of very stout substance, reflexing at the tips, coloured golden-yellow internally, changing to a rich cream with

of a hen's egg, white, forming a few very stout roots from below the new growths. Stems 3 feet to 5 feet high, pale green, slender, hollow, not rooting from the base in the specimens we have grown. Leaves in whorls, like a small *L. washingtonianum*, narrow, scattered above and below the middle. Flowers in an umbel of five to twelve, resembling those of *L. Martagon* in outline, coloured lilac-purple, with a median line of yellow running down each petal, minutely dotted claret on the margins of each petal in the basal half internally; very fragrant. Rare in cultivation. Flowers in July. Midway in shape, habit, and floral details between *L. rubescens* and *L. Martagon*.

#### CULTURE AND USES.

—This Lily is quite

new to cultivation, and as only imported bulbs have been available, and these in a more or less bruised condition incidental to travel, it is hardly possible to form a fair estimate of its garden value, but from its bulb formation, manner of rooting, and our two years' experience in its cultivation, we gather that it prefers conditions considered good for *L. columbianum*. It has not thriven in a plant border, but bulbs planted on sloping ground have established themselves. The dainty habit and pleasing colouring of this Lily are delightful features, and we hope it will prove easy to grow.

G. B. MALLETT.

### CORRECT PLANTING IN THE FLOWER GARDEN.—III.

**D**APHNE CNEORUM.—Many years ago I first saw this lovely dwarf shrub in full bloom in a round bed in front of a cottage at Beccles, in Suffolk, and though at that time I had no soul for gardening, nor the remotest idea what the flowers were, I have never forgotten the occasion, and have ever since patiently cherished the idea of eventually possessing just such another round bed of my own. But though I had meanwhile discovered the name of the much-admired plant, and formed some idea of how to grow it, it was not till my numerous wanderings from one hired house to another had ceased, and I found myself, a few years ago, comfortably settled here in Kent that I was able to carry out my deep-laid scheme.

Then one fine day, in 1898 I think it was, I removed about half the loam from a piece of warm border, replacing it with a similar amount of peat and a little sand, made up a delightful mixture for my six new *Daphnes*, and carefully planted them some 18 inches from the path. The fates, I may remark, were against me at the critical moment, and I could not manage the long-projected round bed, to my great regret. The result surprised myself, and my gardening friends too, for though I



RAOULIA EXIMIA (VEGETABLE SHEEP) IN NEW ZEALAND

have lost two of the plants and have had to put others in their places, the general growth has been strong and luxuriant ever since, and the vivid mass of sweet pink flowers an annual joy, the round bed at Beccles not being "in it."

I have been obliged to alter the footpath and give the encroaching *Daphnes* more room, for they grew all over the original path, and their delicate shoots were continually crushed under the Juggernaut of the passing wheelbarrow. The foliage does not, perhaps, look as healthy



NARCISSUS PALLIDUS PRÆCOX WITH THREE BLOOMS.

as usual this spring, but this may be the result of that miserable 1903. Anyhow, I do not think there is much the matter, and the flower-buds are as numerous as ever. I am going to try this species as an edging in my new "colour" border, and pray for similar success.

If I may be allowed to draw conclusions from my rather limited experience, I should be inclined to tabulate the requirements of this *Daphne* as follows: (1) Good bushy roots to start with, not a few weak fibres at the end of the layered shoot; (2) a sunny position at the ordinary ground level; and (3) a mixture of loam and peat in equal parts, with a little sand.

There is a larger-flowered variety known as major or

grandiflora, but I have not tried it, nor have I ever, to my knowledge, seen it. If it is an improvement on the type it is indeed worth growing. Can any reader of THE GARDEN tell us about it?

#### NARCISSUS PALLIDUS PRÆCOX.

I have not grown this beautiful early Daffodil in moist grass land, where it is said to flourish, but I have tried it in various parts of my garden with signal want of success, and it was not till I discovered what I take to be its peculiar requirements that I managed to keep it alive for more than a couple of years. Now I have it apparently quite at home in a peaty bed under the shelter of thin overhanging branches of *Rhododendrons*, and it blooms well every year, seeming to improve steadily the while. Some of the bulbs at the present moment are carrying from three to seven flowers, while in one case no less than three, and in another two, blooms are on one stalk, "fasciated," of course. Is not this fasciation very unusual among *Narcissi*? The accompanying illustration gives a very fair idea of the triple head. There was a note in THE GARDEN quite recently recommending a very similar situation for this Daffodil, so I think there must be something in it.

#### LITHOSPERMUM PROSTRATUM.

This does remarkably well with me here in Kent, so well that I have never lost a single plant or had a sickly one so far. *Absit omen!* My advice to those wishing to succeed with it is to begin with good, well-rooted specimens, plant them carefully in light, loamy soil, with sand and leaf-mould or peat, but no manure of any kind, in a warm, sunny, and well-drained position, the roots being close against the edging stones of the rockery or border. It is not necessary that they should be planted above the existing ground level, though those that have done best with me are raised a foot or two. I seldom water my plants, but in very dry weather in spring or summer I give them a good soaking with rain water occasionally.

At one time I was afraid that the lime in the Kentish ragstone would be bad for Lithospermums, but I do not suppose that much of this is dissolved out of the very hard compact stones I use. Anyhow, my plants look exceedingly well, and it is a pleasure to have such nice healthy specimens, never without a flower or two, even through the winter, and with no sickly yellow foliage to disfigure them.

#### TECOPHILEA CYANOCROCUS.

There are certain flowers that, when first seen in perfection, take one's breath away, so to speak, and go straight to one's inmost cultural soul. Just as the artist, at first sight of one of Nature's most enchanting scenes, thrills with the desire to transmit those wondrous effects to his canvas, so the enthusiastic gardener, in his delight and admiration when he first comes across a new and lovely flower, takes out pocket-book and pencil, reads the label or ascertains the name from the proud owner, makes a note of it, and then and there registers a solemn and silent vow that nothing short of death shall prevent his obtaining and growing the same beautiful thing himself.

Such a flower is the subject of these remarks. It is a thing of wondrous beauty, and I believe it will prove to be hardy in the British Islands, except in wet and cold districts, and flourish, if we can only ascertain its real requirements.

It seems to be universally accepted now that the corns must be planted deep, 9 inches or so beneath the surface, and that the soil must be light and well drained. I have grown it out of doors for some years, but I cannot say with much success, though a few of the corns have flowered annually. Perhaps I should have done better had I not so often moved them about from one "specially selected" position to another. Last autumn I dug them all up once more and replanted them in a warm, sunny, deep bed of peat and leaf-mould facing due south, where they are now sending up fairly promising tufts of leaves, but to my great disappointment I have lately been told by a neighbour, who is more successful with them than I am, that they do not like the hot roasting corners invariably recommended in the gardening books, preferring a westerly aspect with no sun till the afternoon. Shall I have to dig them up yet again? I suppose so, for I will not be beaten by any *Tecophilea* that ever was "corned!" This spring I shall get over the difficulty by putting in a few evergreen boughs to keep off the midday sun, and see what happens, but I am afraid I dare not do more here than suggest the conditions under which experiments should be carried out by intending growers. These appear to me to be (1) deep planting, (2) light peat and leaf-mould soil, and (3) a westerly aspect in a warm position.

I may add that I am trying the variety *Leichtlini* for the first time in the same peat bed, but with a more westerly outlook, and am looking forward anxiously to its performances, hoping at some future time to be allowed to report upon them.

In concluding this article, I would venture to express the hope that my various failures and successes may be of some use to brother and sister gardeners, and that they, in their turn, will further the good cause by making known their own experiences with some of our "difficult" plants and shrubs, so that we may all start, at any rate, with "correct planting."

*Yalding, Kent.*

S. G. R.

## THE FRUIT GARDEN.

### MAKING USE OF FORCED STRAWBERRY PLANTS.

**M**ANY forced Strawberry plants will soon have produced their crops of fruit, and will be cleared out of the fruit houses to make room for successional plants. Very often they are consigned to the rubbish heap after the fruit has been gathered from them, but some at least deserve a better fate, that is if a few Strawberries in early autumn are appreciated. As almost every one likes variety in dessert, it is safe to assume that Strawberries will not be despised in the month of September. When the plants are removed from the forcing houses, select a certain number of the best, say fifty or a hundred or more, as may be desired. As they will have been in a fairly cool house while the fruits were ripening, no harm will result by placing them directly out of doors. Choose a partially shaded position, however, for April is a treacherous month, and the plants having been in warm houses for some time they are all the more susceptible to bad weather. It is best to give them no more water than is absolutely necessary for a time, so as to allow them to enjoy a certain amount of rest after the hard forcing they have had. When they begin to make fresh growth, say in the middle of May, the surface soil to the depth of about 1 inch should be removed and replaced by fresh; use good loam with which a little bone-meal has been mixed. Some of the finest plants may be potted into larger pots if they appear to require it, say into those of 8 inches diameter; as a rule, however, it is better to leave them undisturbed, except for the top-dressing. Give each plant plenty of room so as to allow them to benefit fully from sun and air during the summer months. They must be in a sunny spot, otherwise the growth made will be sappy and the trusses of blossom will be weak.

They will give no trouble except that occasioned by watering, weeding, removing runners, and pricking up the surface soil sometimes. Watering, however, is an important item, the plants will need an abundance during hot weather, and they must not be allowed to suffer from the want of it or unsatisfactory results are almost sure to follow. If the runners are removed as they appear the plants gain a good deal in strength, and keeping the surface soil loose makes it more congenial to the roots than if it is allowed to get hard, besides which the soil is then more likely to keep moist. When the flowers open it is a good plan to place each plant upon a pot so as to raise it from the ground, a better "set" is thus obtained, and when the fruits are formed they will be more likely to keep clean than if the plants are on the ground. Manure water should be given several times a week after the fruits are formed. Under such treatment I have found that forced Strawberry plants will produce quite a satisfactory second crop of fruits in September.

A. P. H.

### STRAWBERRY LOUIS GAUTHIER.

HAVE any readers of *THE GARDEN* attempted to force this Strawberry? It has been recommended for this purpose, but I have had no experience with it so far as forcing is concerned. As to its value in the outdoor garden there can, I think, be no two opinions; it is a splendid cropper, and Mr. Bunyard says it resists hot weather well, and also gives a second crop of fruit in the autumn. It is hardy and a vigorous grower, so that those whose gardens are situated in an unfavourable neighbourhood, as in the vicinity of large towns, might grow this variety with every prospect of success. Not everyone cares for a white Strawberry, and this may, perhaps, account for the comparative neglect of *Louis Gauthier*; to say it is white, however, hardly conveys a correct idea of its colour, which may be more properly described as pale pink; the flesh is white, and the flavour very pleasant. If the public would only overcome a prejudice against the colour of this variety, I am sure so far as other qualities are concerned they would find nothing to complain of. But it seems to be with white Strawberries as with yellow Tomatoes, the public will have none of them.

A. P. H.

### WINDOW GARDENING.

#### HYACINTHS AND NARCISSI IN MOSS FIBRE.

MR. ROBERT SYDENHAM, of Tenby Street, Birmingham, kindly sends a photograph of *Hyacinths* and *Narcissi* grown in moss fibre mixed with ground shell. We reproduce this with pleasure, as it shows a very simple and



HYACINTHS AND NARCISSI IN MOSS FIBRE.

successful way of growing the early bulbous flowers of the year. The bulbs shown were grown by Mrs. E. H. Crossman, Willcotte, Nesscliffe, Shrewsbury, and they are in china jars without any drainage. It will be noticed that the receptacles are of various sizes and shapes. A most interesting way of growing flowers in the house.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### BOLTED CABBAGES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A spring never goes by without some of the Cabbages running to seed. I know of nothing more disappointing after one has gone to a lot of trouble over a bed of Cabbages which promise to turn in early to find the greater part of the plants bolt, but it seems to be a disappointment that most gardeners meet with at different times during their career. Too early sowing is often given as a cause of bolting, and there may be something in it, but it is more often a question of after conditions. I dare say I am only relating the experience of others when I say that I have sown Cabbage on a certain day and have never had a plant bolt; and another year, though sown on the same day of the month, quite three parts of the plants have run to seed. In consequence of these uncertainties there is no safeguard against bolting. Some people make a practice of nipping a piece off the end of the root-stem when planting, and have faith in it as a means of prevention, others make a slip through the root-stem above the ground and pass a little piece of wood through. If the plants do not happen to bolt they point to this as a reliable means of prevention, but forget that Cabbages do not always run to seed, and probably would not have done so if no such measures had been adopted.

To ensure against the bolting trouble so far as possible I like to make two sowings, one towards the end of July and another about the middle of August, and make a planting from each. My reason for this course is that I have noticed in mild autumns that the plants from the early sowing make too much growth before the winter and show a tendency to run to flower in the spring. In these cases plants from the second sowing are more to be relied on. On the other hand, if the autumn is not so favourable for growth, the plants from the first sowing are better than those obtained from the second. Generally speaking, spring Cabbages are late this year in spite of the mild winter, and with the exception of the case referred to I have not seen many instances of bolting. With regard to varieties, I think that some are more prone to bolting than others, and two which, according to my ideas, are not so liable, are Ellam's Early and Sutton's Flower of Spring. After all has been said, however, a good deal of uncertainty remains respecting the bolting problem, and as it is a matter which affects everybody at some period or other and is of general interest, I should like to hear the views of others as to the possibilities of prevention.

G. H. HOLLINGWORTH.

### CARNATIONS FROM SEED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was somewhat surprised to find "H. A. P." recommending the sowing of Carnation seed in September for the production of flowers the following year. I do not doubt that seedlings raised thus late in the year will produce some flowers, provided the young plants are thoroughly well grown during the winter, but a cold frame is not a suitable place for them if this is to be accomplished. The young plants must be kept growing throughout the winter, and in order to do this they must be provided with suitable temperature

and atmosphere, such as an airy house or heated pit, where plenty of warm, dry air is admitted. Surely this could not be given in cold frames, for there the damp will collect. Do what we may during damp, foggy weather, this will greatly interfere with the growth of the young plants, and growth they must make before they can develop flower-stems. At any rate, they cannot compare with those sown in spring. Of course, it will greatly depend on the kind of Carnations "H. A. P." has in mind as to the number of flowers he will get. If he is speaking of Marguerites the quantity of flowers will no doubt be greater, as these take much less time to form flowering plants. Supposing, however, these are the sorts meant, it is altogether too late to sow seeds for a good crop of flowers the following season. I have raised many thousands of seedling Carnations, and I have sown them as late as September, but not with the idea of securing many flowers the following season, but rather with the idea of perpetuating certain good sorts and for propagating purposes as far as possible.

This season I am raising some 3,000 or 4,000 from seed, but the seed is already sown, and, indeed, some of the seedlings are well advanced, while others are just showing through the soil. These I shall expect to form good bushy plants by the coming autumn, and I shall expect many thousands of flowers from them next year. More than this, they will require no coddling whatever, for I shall prick them off into nursery beds straight from the frames where they are sown, and from the nursery beds they will be transplanted to the flowering beds next October. It will need a hard winter to kill them, or my previous experience counts for little, for I have seldom lost many seedling Carnations through frost. What I most dread is damp, such as we have had the past two winters. The failures, however, among the seedlings are very few. I am very sorry to say this does not apply to layers. These have suffered very much indeed, and are still going off. I refer to those planted out last autumn, also those left on the parent plants. The safest way is to pot the layers early in autumn and winter them in cool, airy frames, where they can receive every attention in the way of watering, pricking off decayed leaves, &c. I also find that ashes do not provide the best material upon which to stand the pots. The best bottom for frames where Carnations are to be wintered is cement. I can very strongly recommend this. It dries very quickly indeed, and does not absorb moisture. I think those who have not already tried this will be very pleased with results if they will give it a trial for their Carnations during winter. It is equally bad for summer, but this is easily remedied by covering it with ashes or gravel, which can be taken off as required.

T. A.

### HARDY FLOWERING SHRUBS AND TREES FOR FORCING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have grown these very largely for several years, and have found most of the flowering shrubs—generally grown in the garden shrubbery—to force readily with a little variation in the treatment of a few sorts. They nearly all flower very freely, and it is not necessary to have a lot of glass room to keep up a good supply of cut flowers and plants to fill conservatory and rooms from Christmas until flowering takes place naturally. The glass here is very limited for the quantity of plants required to be grown. I am forced to economise space in every possible way, so that these plants are under glass as short a time as possible. I devote two small houses to their growth, No. 1 to force in, till they just begin to open their flowers; they are then placed in No. 2 house, which is kept only slightly warm. Here they harden a little before they are taken into the rooms and conservatory. By this means I keep up a good supply of cut bloom and plants. Instead of leaving these plants in warmth to make new growths, at the first signs of the flowers fading or dropping the plants are cut hard back and placed outdoors in sheltered places to make fresh buds to provide new

flowering growth for the next season's flowers. This practice saves me a large amount of glass room, and much care in hardening the new growths. For early forcing I have found the following do well, and stand the hard pruning back well: *Spiræa van Houttei*, *S. procumbens*, *S. Thunbergii*, and *S. prunifolia*; All the double-flowered Almonds, double and single-flowered Lilacs, *Staphylea colchica*, *Prunus triloba*, *P. Pissardi*, the different sorts of Ribes, *Forsythia suspensa*, *F. viridissima*, *Exochorda grandiflora*, *Viburnum plicatum*, *V. Opulus*, *V. tomentosa*, and the Weigelas. These can be forced early and hard cut back. For forcing later through the month of April: All the double-flowered Thorns, the varieties of Crabs (both fruiting and flowering), double-flowered Peaches, double-flowered Cherries, the deciduous Magnolias, *Mespilus canadensis*, *Cydonias*, *Berberis stenophylla*, *Laburnums*, *Wistaria sinensis*, *W. s. alba* and *multijuga*. These all flower freely through April with very gentle forcing. They can be had earlier if required, but I prefer to keep these later, as they cannot be cut back so hard as the former list. To be successful the plants must have plenty of attention during the summer, and be grown in the pots one summer before forcing is attempted. At the beginning of April I commence to pot up any new plants for forcing, and to repot or top-dress the plants that have been forced. I prefer to keep them in pots as small as they can be grown in, and the wood gets better ripened. A good compost is fibrous loam three parts, well-decayed leaf-soil one part; fine bone-meal and wood ashes with a sprinkling of soot can be added and well mixed in the soil. The pots should be carefully crocked with as few crocks as possible. My plants are rather roughly treated. I cut off a good deal of the outer roots, and take away quite half of the old soil, and generally pot them into the same sized pot again. Some of the plants have been growing in the same sized pots a number of years. The compost is well rammed in, but ample space is left for watering. After potting they are placed in a sunny position, and carefully watered till the roots have taken possession of the new soil. They then receive occasional waterings of guano and soot-water. About the middle of May they are plunged in ashes in an open sunny place, where they can be kept well watered till growth is finished and the leaves begin to fall. Before severe frost sets in the pots are covered with long litter, and the plants are taken to the forcing house as required.

W. J. TOWNSEND.

Sandhurst Lodge Gardens.

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

#### MELONS.

MELONS sown as advised in previous calendars will now be approaching maturity. The night temperature should be kept at 70° to 75° at night, with a steady bottom-heat of 80° to 85°. Keep the atmosphere of the house slightly drier, with a freer circulation of air on warm days. This will improve the flavour of the fruits. Do not water the plants at this stage with liquid manure, and slightly reduce the supply of water to the roots, but never allow the soil to become so dry as to cause the foliage to flag; these sudden changes often cause the fruits to split. Cut the fruits as soon as they crack round the stem, and place on some dry airy shelf thoroughly to ripen. Young plants should be in readiness to plant the house again as soon as it can be cleaned, and new beds made up as previously advised. If the bottom-heat can be kept steady it is only necessary to remove a portion of the soil. Attend to stopping and tying later plants, and as soon as the required number of fruits are large enough support them with nets to secure against accidents. Plants set out 1½ feet and 2 feet apart will mature four good fruits. Give liquid manure, also lightly top-dress the plants and give a sprinkling of Thompson's Manure. Now is a good time to commence operations for growing pit or frame

Melons to produce good fruits from July to September. Make beds of fresh stable manure and leaves in about equal parts, and turn two or three times. The beds should be about 4 feet deep at the back, sloping to the front, and made firm. Place turves grass side downwards, and make mounds of a compost of loam and wood ashes, with a sprinkling of bone-meal. Plant one or two plants to a light when the temperature of the bed is 85° to 90°. Do not use plants that have been starved in small pots, but rather sow seeds on the mounds and remove the weakest later. Hero of Lockinge is a good and reliable variety.

## CUCUMBERS.

Plants growing in houses will now be in full bearing, and if intended to remain long they should not be over-cropped or they soon become exhausted. Pinch the growths of vigorous plants, and do not crowd them; remove all old leaves as soon as they become discoloured. Give liberal supplies of liquid manure, with rich top-dressings, occasional sprinklings of Thompson's Manure, and a night temperature of 75°, with bottom-heat at 85°, and plenty of moisture. Plants grown in frames do not require such liberal feeding as those grown in houses, as the roots penetrate the manure. Place pieces of slate under the fruits in frames to prevent their being blanched.

*Impney Gardens, Droitwich.*

F. JORDAN.

## KITCHEN GARDEN.

## PEAS.

To ensure a constant and regular supply of Peas from the end of May till late September sowings ought to be made every fortnight. The large Marrow-fats are always most appreciated. These must be sown thinly; one quart should sow about 110 feet. These fine Peas are seen to best advantage when sown in trenches prepared as for Celery. This method, however, entails a good deal of labour, and in many gardens cannot be carried out. Whatever the method adopted the best land available should be chosen for this important crop. Make the soil firm before sowing; the drills should be flat at the bottom, 6 inches wide and 4 inches deep. It is not advisable to give a selection, as most gardeners have their own favourite. The varieties sent out by our firms are exceptionally fine.

## VEGETABLE MARROWS.

Seeds of these may now be sown in heat. Avoid watering till the seedlings appear, when they may be potted singly into 4-inch or 5-inch pots; harden off quickly, keeping the plants near to the glass as they are apt to get weakly, being of very rapid growth. Marrows will do well in any odd corner providing they have sunshine; they may be successfully grown on heaps of garden refuse or on prepared hotbeds. Make the beds firm and see that the soil on the top is not too rich. When planted out they will require a handlight or frame for a short time till the plants begin to grow.

## TOMATOES.

In many gardens it is quite useless to try these out of doors, even in the best of summers. In the south of Scotland (Dumfriesshire) I have seen splendid crops of Tomatoes grown on the wall of a plant-house. This seems to be a most suitable place for them. The plants chosen for planting out should be of the best and strongest, and ought to be sturdy and in 6-inch pots about the middle of May. If seed has not been sown it should be put in at once in heat. The variety referred to above was Challenger, but more suitable sorts for outdoor cultivation may now be obtained. It is advisable to stop the plants when several trusses of fruit are set, and then to feed the plants liberally. The fruit obtained may not be of the best quality, but will be useful in many ways in the kitchen.

## CUCUMBERS.

Seeds may now be sown for planting in frames. Cucumbers may be most successfully grown in cold frames if the airing is carefully attended to. Telegraph is a most suitable sort for this work. Plant at the top of the frame on mounds several inches higher than the surrounding soil. The

plants must be syringed regularly in the afternoon, and the frames closed, shutting in as much sun-heat as possible. Pinching must be attended to carefully if this crop is to be a success, the same method being adopted as for plants on a trellis in the Cucumber house.

THOMAS HAY.

*Hopetoun House Gardens, N. B.*

## INDOOR GARDEN.

## WORK AMONG ORCHIDS.

THESE plants require a little extra attention at this season, for while it is necessary to repot some and to resurface others, it is very desirable that the plants should first be cleansed. Good fibrous peat, fresh sphagnum moss, charcoal, and clean crocks are the ingredients in which the roots of Orchids like to ramble, and to these in some instances may be added good fibrous loam and dried cow manure. The supply of water to the roots, as well as the atmosphere, should be regulated according to weather conditions, for while during bright weather moisture in abundance is required, it would be unreasonable to apply it in quantity during cold and sunless periods. Regulate also the temperatures. Forcing the plants to make growth under circumstances altogether at variance to their requirements can have no other than an unsatisfactory result.

## FUCHSIAS.

Still a few of these plants are grown in pyramidal form as specimens for exhibition, but present-day requirements have so altered the style of culture that now the most useful plants are those propagated annually from cuttings inserted in March. These are quite ready for potting up singly into 3-inch pots in a compost of which leaf-mould forms the major part, with a very little sand added. Afterwards place them in a close but cool house or frame, and for a few days afford them a light shade from strong sunlight, after which they should be given full exposure to air, light, and sun. Their culture is simple, but to grow the plants well and to have them from 18 inches to 24 inches high and well flowered by August next necessitates strict attention to details, the most important of which are keeping the atmosphere moist during hot weather and nipping out the points of their shoots frequently to cause them to branch freely. The dark-flowered varieties are not quite so much in request as the lighter-flowered ones.

## GLADIOLUS.

The hardy nature of these plants makes them unsuitable for culture in pots. Place a few bulbs of Childsii, Lemoine's hybrids, and the newer Nanceianus, three in a 6-inch or five in an 8-inch pot, grow them well, and when in flower during the latter part of the summer they are admirable. For decorative work, either as plants for grouping or as cut flowers, they are excellent. Good rich loam, leaf-mould, and a little coarse sand form a capital compost. The plants may be encouraged to grow strongly and the size of the flowers increased by applying liquid manure to the roots.

J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*

## FLOWER GARDEN.

## KNIPHOFIAS.

IN many parts of the country it is necessary in autumn either to tie the leaves together over the crowns or to cover the crowns with ashes or leaves as a protection. These may now be dispensed with, and the plants will benefit by a good mulching of farmyard manure. Any Kniphofias which have wintered in cold pits should be planted out in their permanent positions. Groups of these showy plants are very effective when planted in such places as the banks of a stream or on the margin of a wood. They are also suitable for the mixed border, and a few of the dwarfier ones, including the *K. caulescens* and *K. Northiæ*, might be planted in the lower portion of the rockery. The two species named are somewhat tender, as compared with the common Flame Flower (*Kniphofia aloides*).

To propagate these arborescent species, it is necessary to cut off their heads, when the stems will produce a number of shoots which will root readily if inserted in sandy soil and kept close for a few weeks.

Without going in for the expensive novelties—which in some cases are of questionable merit—a good succession and display may be made with the older sorts, such as *Kniphofia Tuckii* and *K. Leichtlini* for the earliest flowers, followed by *K. Macowanii*, *K. grandis*, and *K. nobilis*. Abundant use should be made of the old *Tritoma Uvaria grandiflora*.

## CAMPANULA PYRAMIDALIS.

Too often in private gardens these stately flowers are confined to pot culture for the conservatory. Seeds should now be sown in gentle heat, and after the necessary pricking off the seedlings, when large enough, should be planted out in a moist soil. For borders which are exposed to rough winds the newer *Campanula pyramidalis compacta* is preferable to the taller type.

## VIOLETS.

If really good, presentable flowers are required it is not wise to allow the plants to occupy the same place for a longer period than three years. At the completion of flowering is the best time to make new beds and borders of Violets. The position will be determined by the soil and locality. In light soils the single sweet Violets thrive on a north border, but in a colder, heavy soil a more sunny position is desirable. The double varieties, especially *Lady Hume Campbell*, are deserving of a most extended cultivation on warm outside borders.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## RECENT PLANT PORTRAITS.

IN the April number of the *Botanical Magazine* are portraits of

*Arundinaria Falconeri*.—Native of the temperate Himalayas. This is also known as *A. falcata*, *A. nobilis*, and *Thamnocalamus Falconeri*. This is, perhaps, the most common and best known form of what are generally called Bamboos in our gardens, and was introduced into cultivation in 1847, when Captain Madden sent seed of it to Sir W. Hooker.

*Aloe Baumii*.—Native of South-West Africa. This is a handsome dwarf Aloe, with heavily marbled and very prickly foliage, and tall spikes of pale rose-coloured flowers. The specimen figured came from the garden of Sir T. Hanbury at La Mortola.

*Crossosoma californica*.—Native of California. This is a member of a small family of which only two other species are known, named, respectively, *C. Bigelowii* (a native of the mountains of the mainland of California) and *C. parviflora* (a native of Sonora, in North-West Mexico). The species figured is found only on the small islands of Santa Catalina and Guadalupe, and produces globular pure white flowers.

*Crotalaria capensis*.—Native of South Africa. This is also known under the synonyms of *C. arborescens* and *C. incanescens*. It is a handsome free-blooming plant, producing pendulous bunches of large yellow Pea-shaped flowers, with a reddish shaded under petal. It was introduced to Kew Gardens so far back as in 1774.

*Dipodium pictum*.—Native of Malaya. This is also known under the synonyms of *Wailesia picta*, *W. rosea*, *Lepardanthus scandens*, *Grammatophyllum scandens*, and *Hydranthus scandens*. A bright-flowered Orchid, with bunches of yellow flowers, deeply spotted with carmine. It is closely allied to the *Vandas*.

The first part of the *Revue Horticole* for April contains the portrait of a most beautiful hybrid *Cypripedium* named *Gaston Bultel*, raised in the Luxembourg Gardens, Paris, by crossing *C. Mme. Coffinet* with *C. fairieannum*.

The April number of the *Revue de l'Horticulture Belge* contains a double-plate portrait of a graceful stove Palm, *Arca Ilsemani*.

W. E. GUMBLETON.

## ORCHIDS.

ODONTOGLOSSUM CIRRHOSUM  
PITT'S VARIETY.

**O**N the 5th inst., this Orchid, which had received an award of merit on May 5, 1903, was given a first-class certificate by the Royal Horticultural Society. An ordinary form of *Odontoglossum cirrhosum* can be bought for a few shillings, but, as in the present case, when the variety is unusually fine the price may be very high. Mr. H. T. Pitt, who exhibited the form illustrated, gave a large sum for the plant in 1902; it is undoubtedly the finest *O. cirrhosum* yet seen. The flowers are large, white, the segments tapering to unusually long, undulating tails. The sepals are much broader than in the type, and beautifully spotted with chocolate-red. The basal part of the petals is more than an inch broad, with fewer spots of the same colour. The apical part of the lip is sparsely spotted with chocolate, the expanded basal portion being yellow, with purplish violet radiating lines

DENDROBIUMS AT  
WEYBRIDGE.

"COME and see my Dendrobiums," wrote Mr. Bilney, "you will be pleased." I went, I saw, and I was more than pleased—I was surprised. In my young days thousands of pounds' worth of Orchids passed through my hands, but never since I had *Cattleya Skinneri* with upwards of 300 blooms, and *Miltonias* and *Zygotalum*s equally good, have I seen anything that could equal the display of Dendrobiums at Fir Grange. One section of the Orchid house 20 feet long, with four rows of shelves, is simply crowded with the exquisitely formed, delicately tinted flowers, so numerous, indeed, that I should be sorry to have the task to count them. Very prominent are *nobile nobilius* and *wardianum*, and when I say that one plant of the former carries about 170 blooms, and that five plants average 130 flowers each, your readers will have a fair idea of the way in which Dendrobiums are managed at Fir Grange.

As regards these two Dendrobiums one scarcely knows which to admire most—the refined delicacy of *wardianum* or the soft brilliance of *nobilius*—but one may safely say that as grown at Fir Grange nothing in the way of floral life can surpass them. My notes were rather hurriedly made, so that it is impossible to accurately describe all the beautiful species and hybrids in bloom. *Ainsworthi* was conspicuous and in fine condition, as was also the *Hazelborne* variety, the plant carrying a spike of bloom 1 foot in length, and as solid and densely crowded as a *Hyacinth*. The delicate beauty of *nobile virginale* cannot be passed by, and the lovely hybrids *Hebe*, *Gwendolen*, and *Rainbow*, the latter having a large lip, with maroon throat and orange eye, a fascinating combination of colours. *Luna*, white, with yellow eye, is delightful, as is also a hybrid of *heterocarpum* and *Curtisi*, which is to be named *Nancy*. *Brymerianum*, with yellow, curiously fringed flowers, is very distinct, and *fimbriatum* contrasts well with the more chaste-flowered sorts. A plant of *thyrsiflorum* in a 7-inch pot carries thirteen trusses, and *Cooksoni* is bearing about 100 good blooms. It may surprise many when I say that the high development of these

Dendrobiums represents some seven years' labour only in the field of Orchid culture. Less than a decade ago neither Mr. Bilney nor his gardener (Mr. Whitlock) knew anything about Orchids, which he accepted with the remark that he knew nothing about them, but would try and grow them. Bit by bit master and man puzzled the thing out, gradually new plants were purchased, and now there is probably no better grown lot of Orchids in the country. This should be a lesson and an encouragement to those who have had no early training in Orchid culture. Get a good work on the subject, read *THE GARDEN* regularly, and you will in time achieve success. J. CORNHILL.

## WORK FOR THE WEEK.

## PHAIUS.

THANKS to the hybridist we have now some very beautiful *Phaius*, such as *P. Norman*, *P. amabilis*, *P. Cooksoni*, and *P. Marthæ*, that flower freely when well grown. Soon after the flowering season is over new growth will be emitted. Potting should then be done in a mixture of turfy loam, two parts,

soil. Mix the ingredients together with some coarse sand and small crocks, fill the pots to the depth of one-third with rhizomes, and pot rather firmly, leaving sufficient space for a top-dressing of sphagnum. When finished the base of the pseudo-bulbs and the surface of the compost should be on a level with the rim of the pot. This section of *Cattleya* should be afforded a position in the *Cattleya* house where they can be given more sunshine than most of the short-bulbed varieties require. At first water should only be given when the compost has become dry, but when the new pseudo-bulb is fast developing they will benefit by copious supplies, which should be continued till the flowering season is over. If the back bulbs are removed as I have often advised, preserving the young roots, there is no reason why they should not grow freely, and when well grown they are very beautiful and have proved most useful to the hybridiser.

## ANGULOAS.

These will now show renewed activity after having been practically dormant during winter. When the new growth is fairly started potting should be done. These Orchids benefit by being shaken out and given fresh material annually. They revel in a moderate retentive compost of fibrous loam two parts, and good leaf-soil two parts, well mixed with some coarse sand and small crocks to keep the compost porous. A drainage of clean crocks such as would be given to a *Croton* is ample. Pot rather firmly, keeping the compost below the rim of the pot. When the plants are growing freely, and until the completion of the new pseudo-bulb, water should be very freely given. The temperature of the intermediate house suits them, shading them well when growing freely. These are very interesting Orchids to cultivate on account of the cradle-like formation of their flowers. Among the best are *A. Clowesii*, *A. eburneum*, *A. uniflora*, and *A. Ruckerii*. W. P. BOUND.

Galton Park Gardens, Reigate.



ODONTOGLOSSUM CIRRHOSUM PITT'S VARIETY.

and one part each of peat and leaf-mould, with a good sprinkling of small crocks and coarse sand. A good drainage of clean crocks or pieces of soft red brick is essential, over which place some fibrous loam to keep the water passage clear. Keep the base of the plant below the rim of the pot, and surface with good chopped living sphagnum. *P. grandifolius*, *P. Blumei*, and *P. Humboldtii* may be treated in the same way, but in every case potting should be deferred till the new growth is well started. The hybrids obtained from *P. tuberosus* are very productive of basal growths. These should be taken away and potted up singly, and they will soon make strong flowering plants. A shady position in the stove Orchid house should be given them.

## LONG-BULBED CATTLEYSAS.

Many of these will now be starting into active growth, among them being *C. bicolor*, *C. granulosa*, and *C. velutina*, and potting should be taken in hand, using a compost of two parts fibrous peat and one part each of chopped sphagnum and leaf-

*stigma aurea* an award of merit was bestowed upon it by the Royal Horticultural Society. As shown it was pretty enough to merit that distinction, which falls to but few hard-wooded plants nowadays. While the above is the most fragrant member of the genus, the honour of being the showiest must, I think, be assigned to Miss North's *Boronia* (*B. heterophylla*), which first flowered at Kew in 1886 from seeds sent by this lady. It rapidly became popular, and splendid examples are now disposed of by some of our nurserymen who still grow hard-wooded plants. The flowers of this are bell-shaped, and of a rich rosy carmine colour. They are borne in such profusion that every twig is densely packed with them. Though light and air are very essential in the culture of this, as in all other *Boronias*, direct sunshine soon causes the blossoms to lose a good deal of their rich colour, hence shading is very necessary when in flower.

Next in popularity to the two above named comes *B. elatior*, a far more vigorous grower than

## INDOOR GARDEN.

## BORONIAS.

**T**HE delicious fragrance of *Boronia megastigma* renders it a general favourite, for very few, if any, of the occupants of the greenhouse in early spring can compare with it in this respect. Last year saw the advent of a distinct variety, in which the blossoms are yellow, and under the name of *B. megastigma aurea* an award of merit was bestowed upon it by the Royal Horticultural Society. As shown it was pretty enough to merit that distinction, which falls to but few hard-wooded plants nowadays. While the above is the most fragrant member of the genus, the honour of being the showiest must, I think, be assigned to Miss North's *Boronia* (*B. heterophylla*), which first flowered at Kew in 1886 from seeds sent by this lady. It rapidly became popular, and splendid examples are now disposed of by some of our nurserymen who still grow hard-wooded plants. The flowers of this are bell-shaped, and of a rich rosy carmine colour. They are borne in such profusion that every twig is densely packed with them. Though light and air are very essential in the culture of this, as in all other *Boronias*, direct sunshine soon causes the blossoms to lose a good deal of their rich colour, hence shading is very necessary when in flower.

Next in popularity to the two above named comes *B. elatior*, a far more vigorous grower than

either, and also later in flowering. The pinnate leaves of this are of a rich green tint, while the flowers are bright rosy red. It is one of Messrs. Veitch's introductions, having been sent out by them in 1874. In nurseries where *Boronias* are grown in quantity this species is generally included, as it affords a succession to the others. A singular species is *B. serrulata*, which is very particular in its cultural requirements, and on that account is not so generally grown. It is a low-growing plant, whose spreading shoots are clothed with curious trapeziform-shaped leaves, among which the bright rose flowers nestle in considerable numbers. It has been known in this country for nearly a century, and used to be considered a good test of the cultivator's skill, but this is a matter little considered at the present time. Other species are *B. crenulata*, *B. pinnata*, *B. polygalifolia*, and *B. pulchella*, but they are seldom met with. T.

## THE KITCHEN GARDEN.

### CULTIVATING AND EXHIBITING THE POTATO.

**A**LTHOUGH within the last fifteen or twenty years great strides have been made in the cultivation and selection of most vegetables for exhibition, the Potato seems to have been neglected in the matters of selecting, washing, staging, &c. How often one sees, especially at local shows, dish after dish of, say, six tubers all of different sizes, and frequently of different shapes too. Not only is this difference in size and shape most noticeable, but the careless washing of the tubers is a still greater drawback. For the benefit of those who are anxious to grow and show the Potato in its best form I propose to give a few practical hints.

I may say, to begin with, that I am a firm believer in deep cultivation for all kitchen garden crops, therefore the ground should be well trenched not later than December, and should at the same time, if manure is plentiful, have a good dressing of well-rotted farmyard manure, unless the Potatoes are following a crop for which the ground was heavily manured, in which case manuring may be deferred till planting time, and a fair dressing may then be put in the bottom of the trenches as planting proceeds. In trenching heavy, clayey soils I would advise the use of plenty of road scrapings, sand, leaf-mould, and burnt garden refuse, or anything that will help to aerate and lighten the soil, providing that it is not likely to be deleterious to the tubers; and this would certainly be the case with coalashes and newly-slaked lime. To secure clean, perfect tubers I attach more importance to the free use at planting time of plenty of leaf-mould (preferably Oak and Beech), burnt vegetable refuse, and soot, than to any other medium. Although our natural soil is a good Potato soil for ordinary purposes, we should not get the results we do were we to neglect the use of the materials I have just mentioned. If the soil is heavy old potting soil should be saved, and, after passing it through a quarter-inch sieve, mix it with the leaf-mould, sand, and soot, the latter to be in the proportion of about one in ten or twelve of the other ingredients, and the whole to be thoroughly well mixed together. Before planting the sets this compost should be spread 2 inches deep in the bottom of the trench—over the manure if any is used—and after planting the sets must be covered with the compost to a depth of another inch or two, finishing off to the level of the natural soil. Another point to which I attach great importance is the deep forking over of the soil a few days before planting, selecting for this operation a dry day; in fact, all operations such as digging, forking, hoeing, earthing up, &c., for Potatoes should be done when the soil is dry.

I may here say that I am not an advocate for the use of any kind of artificial manures in the cultivation of Potatoes providing the land is fairly good in quality. On poor soils a light dressing of kainit, in addition to a good coating of well-rotted farm-

yard manure, might be beneficial; or kainit and superphosphate together form, perhaps, one of the best stimulants to healthy growth and abundance of fine tubers. Apply at the rate, say, of 5 cwt. per statute acre. The cultivator who knows his soil fairly well will, however, be the best judge as to whether any artificial manure is likely to be required or not. In growing for exhibition it is absolutely necessary to have sprouted sets to obtain the best results. If this has not already been done they should be set up at once in shallow boxes and put into any such place as a Mushroom house for a time until the sprouts are, say, an inch long, being afterwards gradually inured to light and air to harden the sprouts, or "sprints," as they are termed in Lancashire. A day or two before planting (I usually plant about April 20) the Potatoes should be cut up to allow of the cut portion healing. Only one sprout should be allowed to each set, all others being taken out with the point of a knife. By following this method much finer tubers are secured, though, of course, less of them. On heavy soils it is perhaps advisable to follow the ridge system of planting; on medium and light soils I prefer planting on the flat. When the Potatoes are about 6 inches high they should be earthed up, but a few hours previous to earthing I would advise that the ground between the rows be forked over to a depth of 4 inches or 5 inches or even a little more. This operation dries and sweetens the soil. After earthing up little more is necessary except weeding.

I am afraid that many Potato growers make a great mistake in planting too thickly. This is, I am sure, one of the greatest mistakes in Potato cultivation, especially with strong-growing varieties, which, if too closely planted, become such a tangled mass of growth that if disease appears ruin is certain. If given sufficient room to develop strong, sturdy growth, among which some light and air can play, there is much less chance of disease appearing. Strong-growing varieties should be planted 1 yard apart from row to row, and not less than 15 inches from set to set in the rows. When lifting Potatoes for exhibition very great care should be exercised to handle them so that the skins are not broken, and as the lifting proceeds only the very best-shaped tubers should be selected, all others being put on one side for ordinary use or for planting again the following year. In selecting tubers for planting choose the best remaining after the exhibition tubers have been selected.

When the tubers are lifted—and this should always be done the day before the show if possible—take them at once to the shed to be washed. This is one of the most important operations the exhibitor has to deal with, as if carelessly performed all his previous labour is wasted. Three vessels of water, preferably tepid, are necessary. In the first take off carefully all the rough dirt with a sponge, and as each tuber is washed pass it into the second vessel, which should contain water in which sufficient common soap has been rubbed to make a good lather. A soft brush should be used now, and the skin may by careful washing be made to look, as one individual said when viewing a collection of Potatoes of mine at a Liverpool show, as if they had been "sand-papered." I advised that individual to try sand-papering a few and note the results. After washing in this soapy water dip into clean water and dry by dapping, not rubbing, with a clean cloth. All tubers should be laid out on a clean bench, each variety together, and should be covered with paper or cloths until all have been washed, after which selecting the tubers for each dish may commence. In doing this select first a good typical example, and keep as near to it all through as possible. All dishes should contain tubers as nearly alike as possible. Do not on any account be tempted because you find a specially fine tuber to put it in, thinking it may gain you points; it is more likely to lose you one or two. When all are selected name every dish carefully, and at once proceed to wrap each tuber in a separate piece of clean paper and pack into your hampers, the last number first—that is to say, if you have twenty dishes commence at the bottom with No. 20, working backwards till you come to No. 1.

When unpacking at the show this helps one to stage quickly, and so keep on good terms with the staging stewards. The name of each variety should when packing be put with the last tuber as packing proceeds, these to be substituted by neatly written or printed tickets when placed on the dishes. As each dish is staged it should be carefully covered with paper, removing this at the last moment. Covering the tubers after staging may seem to beginners needless trouble, but such is not the case, as Potatoes, especially while the skins are tender, when exposed to light and air quickly turn green and lose that freshness which is absolutely essential to success; and whatever is worth doing is worth doing well.

Varieties of Potatoes are almost innumerable. I will name a few that I consider first-class exhibition sorts. It must, however, be borne in mind that many Potatoes give both round and pebble or kidney-shaped tubers from the same root, so that the description round and kidney shaped is not always absolutely accurate. Of *coloured kidneys* the following are the best I know: Mr. Breeze, Kerr's Leda, Edgecote Purple, Edward VII., and Peerless Rose. *Coloured round*: Reading Russet, Lord Rosebery, Webb's Red King, Carter's King of Russets, Pink Perfection, Purple Perfection, Herd Laddie, The Dean, and Vicar of Laleham. *White kidneys*: Sir John Llewelyn, Snowdrop, Webb's New Guardian (grand for exhibition), Daniel's Duke of York, Royal Kidney, Sutton's Ideal, Ninetyfold, and Discovery, Webb's Progress, British Lion, Fylde Wonder, British Queen, General Buller, Kerr's General Roberts, and Sutton's Satisfaction; and I might add International Kidney, which has perhaps been awarded more prizes than any Potato ever grown, though its fine appearance is its only recommendation.

*Good round varieties are* (white): Webb's Goldfinder, Carltonian, Windsor Castle, Carter's Monarch and Snowball, Sutton's A1, Best of All, and Abundance, Northern Star, Daniel's Sensation, Kerr's Jubilee, and Bountiful. B. ASHTON.

*Latham Park Gardens, Ormskirk.*

## NOTES FROM THE MARKETS.

**L**ILIES.—Since Easter there has been a large increase in the supply, and *L. longiflorum* is now most plentiful, with a great fall in price. This is partly owing to the check from dull weather previous to Easter. One large grower had anticipated having a good supply for Easter, but failed to get them in time, and a week later saw them in full glory. There are few things which are more difficult to get just at any given time. Even the most experienced were a little behind for the Easter markets. *L. lancifolium album* and *L. candidum* are more plentiful, also *L. auratum*. A few fairly good pot Lilies are seen, but the longiflorums are rather tall, the dwarf variety *Harrisii* being very scarce.

*Ericas*.—Well-flowered plants of sorts previously referred to continue to be plentiful, and other spring sorts are now added. Of those Cavendishi, perspicua, and propendens are good.

*Marguerites*.—There continues to be an oversupply of these, many of the growers having well-flowered plants, some quite large. The best in 4½-inch pots are most in demand. A good many small plants in 3-inch pots are now coming in, also large supplies of rooted cuttings in store boxes.

*Cenistas*.—The whole market is perfumed with these. Owing to the few days of milder weather they have come on very rapidly, and it is a little too early for them to be used in large quantities for window boxes yet.

*Spiras*.—There is now a plentiful supply of these, and the quality has much improved. In addition to the old favourite "japonica," multiflora, compacta, and astilboidea floribunda are very good. Cinerarias continue good and very plentiful.

*Indian Acaelas* still make a bright show, and are seen all round the market. The bright colours are plentiful, and whites are beautifully flowered



*Hydrangea Thomas Hogg* is chiefly in 4½-inch pots, with several good heads of bloom on each, but there is not yet a very good demand for them. There are also some better-coloured pink *Hortensia* coming in now. Cyclamens are not so plentiful, but one or two growers still have them very good. Crimson Rambler Roses coming in now are much better flowered.

**Bedding plants.**—Already a good many growers have started sending the ordinary spring-bedding plants, zonal Pelargoniums in small pots, also in store boxes. Marguerites are also to be had in pots and store boxes, but mostly it is in store boxes that they are to be seen, and anyone having the convenience for potting off or otherwise preparing the various things for planting out later may secure good stuff at a small cost—Fuchsias, Calceolarias, Lobelia, Harrison's Musk, *Tropæolums*, Stocks, Asters, *Nicotiana affinis*, *Pyrethrum aureum*, and other things. Some are yet very soft, and would require carefully hardening off, and I am afraid a good deal that is sold never lives to flower. Some good Violas are coming in, and these are useful for immediate planting.

**Pansies.**—Some growers have now started with these, and every warm day will make a great difference to the quantity. It is surprising what quantities of these are sold in Covent Garden every season. At one time by far the largest portion of the trade was done by one firm, Messrs. Heath Brothers, whose strain has long been recognised as the very best for market. There are now several good growers, and Pansies will be coming in in van loads for several weeks. They are mostly put up in the small boxes as used for Lobelia, &c., about two dozen plants in each box, each plant having at least one bloom open. During the time they are most in demand the prices vary from 2s. 6d. to 3s. 6d. per box, or a few specials may make more, and, of course, there may be some cleared out at less.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

NARCISSUS PALLIDUS PRÆCOX AND N. CERNUUS PLENUS.

The Lord Kesteven sends flowers of these beautiful Narcissi. The former seedlings were raised at home, and the flowers sent are of very rich colour and the leaves strong in growth, but this Narcissi varies greatly from seed. We were pleased to see the charming double cernuus; it is a flower of dainty colouring, and is a great success with our correspondent in his garden at Stamford.

THE PASQUE-FLOWER.

Mr. Molyneux sends from Swanmore Park, Bishop's Waltham, flowers of *Anemone Pulsatilla*. A group of this wilding in the rock garden is always interesting. There is a great charm in the silky violet flowers that seem to shine in the sunlight of spring. We have always found a gritty, well-drained soil and full exposure bring out its full freedom both of growth and flower.

THE MAY-FLOWER AND CORNUS MAS.

Mr. Anthony Waterer sends from his nursery at Knaphill, Woking, many flowering stems of the May-flower or Ground Laurel of America (*Epigæa repens*), a delightful little evergreen found in sandy soil under the shade of Pines in the States. It was

at one time seriously considered whether the *Epigæa* should not be chosen as the national flower of America; it is just one of those things to establish in peaty soil in the shade of trees, and at this time the pretty pink clusters of sweet smelling flowers are welcome. We are glad to be reminded of the golden beauty of *Cornus Mas*, or the Cornelian Cherry as it is called. When this flowers spring has come.

NEW AND RARE PLANTS.

A NEW SMILAX.

(MYRSIPHYLLUM ASPARAGOIDES MYRTIFOLIA.)

FEW plants are of more value to the gardener who has a good deal of decorative work to do than *Smilax*, and it is interesting, therefore, to chronicle the advent of a new one. For dinner-table decoration, draping vases of cut flowers, or for use in many other ways, *Smilax* (*Myrsiphyllum asparagoides*) is invaluable. Of the new variety, which is named *myrtifolia*, we give an illustration made from a photograph of a plant sent to us by Messrs. Hugh Low and Co., Bush Hill Park

Nurseries, Enfield, N., who hold the whole stock of the plant in this country. A writer in *American Gardening* recently gave the following particulars about the Myrtle-leaved *Smilax*: "It is a plant that appeals to the gardener as one that may be of exceptional value. It will prove as valuable as *Asparagus Sprengeri*, and is quite as beautiful, though of an entirely different type. It is very much more delicate and graceful than the common *Smilax*, the leaves being much smaller—only about one-sixth the size—and the young tendrils being much more pleasing than the stiff branches of the common *Smilax* make it a more beautiful green for decorative purposes. This new variety produces many more shoots than the type, and on this account it is advisable to carry it up on several strings, thus making it a more profitable plant to grow, especially for the house. It is a stronger and more vigorous grower than the common *Smilax*, and its hardness and durability are more remarkable, strings remaining fresh six to eight days after being cut, and eight to twelve days when placed in water. It will commend itself to every grower of cut flowers, as there is so little variety in good greenery for cut-flower work. This *Smilax* originated in Europe about six years ago, and has proved constant since. Thus far no seed has been obtained, propagation being effected by division of the bulbs only, which are produced very rapidly."



A NEW SMILAX (MYRSIPHYLLUM ASPARAGOIDES MYRTIFOLIA).

KEW NOTES.

INTERESTING PLANTS IN FLOWER.

Temperate House.

*ULIANTHUS PUNICEUS*, *Coriaria nepalensis*, *Hypocalymma robustum*, *Lobelia nicotianæfolia*, *Mucuna sempervirens*, *Olearia stellulata*, *Rhododendron arboreum*, *R. Beauty of Tremough*, *R. Cunninghamii*, *R. Dalhousiæ*, *R. Falconeri*, *R. formosum*, *R. forsterianum*, *R. nilagiricum*, and *R. racemosum*.

Palm House.

*Barringtonia ramoensis* and *Sterculia neomexicana*.

Orchid Houses.

*Aerides houlletianum*, *Ansellia africana*, *A. humilis*, *A. nilotica*, *Arpophyllum spicatum*, *Bulbophyllum fuscum*, *Calanthe discolor*, *Catasetum macrocarpum*, *Cattleya lawrenceana*, *C. citrina*, *C. guatemalensis*, *Cirrhopetalum fimbriatum*, *C. picturatum*, *Cymbidium eburneum*, *Cynorchis kewensis*, *Cyrtopodium punctatum*, *Dendrobium brymerianum*, *D. crepidatum*, *D. devonianum*, *D. infundibulum*, *D. Loddigesii*, *D. Madonna*, *D. Pierardi*, *D. spathaceum*, *D. tortile*, *Epidendrum Allemanii*, *E. ciliare* var. *cuspidatum*, *E. o'brienianum*, *E. stamfordianum*, *Eria erubescens*, *E. stricta*, *Lælio-Cattleya highburiensis*, *Lycaste locusta*, *L. gigantea*, *Masdevallias* (various species), *Megaclinium falcatum*, *Miltonia Roezlii*, *Odonoglossum citrosium*, *O. triumphans* and others, *Oncidium altissimum*, *O. lamelligerum*, *O. leucochilum*, *O. phymatochilum*, *Ornithocephalus grandiflorus*, *Pelexia olivacea*, *Pholidota chinensis*, *Satyrium coriifolium*, *S. odorum*, *Scuticaria Hadweni*, *Selenipedium grandis*, *S. titanum*, *Spiranthes picta*, *Tetramicra bicolor*, *Trichopilia sanguinolenta*, and *Vanda suavis*.

T Range.

*Anoiganthus breviflorus*, *Babiana speciosa*, *Cephaelis Manni*, *Dracontium gigas*, *Dyschoriste Hildebrandtii*, *Eucomis Jacquini*, *Eranthemum graciliflorum*, *Gesnera cardinalis*, *G. Regime*, *Gothea kermesiana*, *Melasphearulea*

graminea, Sarracenia in variety, Scilla plumbea, Sparaxis plumbea, Tetranema mexicana, and Utricularia montana.

#### Greenhouse.

Acacia hastulata, Correa speciosa vars., Cytisus fragrans, Daphne oleoides, Darwinia hookeriana, Dicentra spectabilis, Hippeastrums in variety, Mignonette, Salvia Heerii, Xanthoceras sorbifolia, and many other things.

#### Alpine House.

Brodiaea uniflora, Cyclamen repandum, Dodecatheon ellipticum, Erythronium Johnsoni, Fritillaria Guicciardi, Muscari atlanticum, M. conicum, Primula frondosa, Trillium nivale, T. sessile var. album, Tulipa Lownei, T. præstans, T. pulchella and var. rosea, and Valeriana arizonica.

#### Rock Garden.

Anemone nemorosa var. bosniaca, A. Pulsatilla, Arabis Billardieri, Cardamine digitata, Corydalis cava and var. albiflora, C. bracteata, Draba bruniefolia, D. stellata, Daphne blagayana, Epimedium pinnatum, Lathyrus cyaneus, L. vernus var. carnea, Mertensia pulmonarioides, Primula clusiana, P. denticulata and vars., P. discolor, P. rosea, Saxifraga apiculata, Sisyrinchium grandiflorum, Thalictrum anemonoides, and Viola odorata var. sulphurea.

#### Arboretum.

Akebia lobata, A. quinata, Arcostaphylos glauca, Corylopsis spicata, Cydonia japonica, Forsythia intermedia, F. suspensa, F. viridissima, Magnolia conspicua, M. stellata, Prunus divaricata, P. Jacquemontii, P. subhirtella, P. tomentosa, P. triloba, Rhododendron ciliatum, Ribes aureum, R. sanguineum, R. speciosum, Stachyurus præcox, Xanthorrhiza apiifolia, and other things.

## OBITUARY.

### MR. WILLIAM CARMICHAEL.

WE regret to record the death of Mr. William Carmichael, for nearly ten years gardener at Sandringham, which took place at 14, Pitt Street, Edinburgh, on Wednesday, the 6th inst. Mr. Carmichael, who had reached the advanced age of eighty-eight, was a native of Comrie, Perthshire, and, after gradually working his way up in the ranks of gardeners, he was eventually appointed gardener to his present Majesty King Edward, then Prince of Wales, at Sandringham, for whom he laid out the grounds there, and in whose service he remained for nearly ten years until his retirement several years ago. Mr. Carmichael was perhaps the last of the men who were under the late Mr. William McNab, of the Edinburgh Botanic Gardens, and at one time occupied the position of foreman there. He afterwards went to Bath, and thence to Drummore, Stirling, where he had charge of both the garden and farm, from where he went to Sandringham. Mr. Carmichael was an able gardener, who cultivated particularly successfully many plants of various kinds. Fruit was one of his favourite departments, and in latter years he devoted much attention to the raising of new Strawberries, some of which have been put into commerce. He is also credited with having been the first to cross Azalea amena and A. indica, from which cross he raised some good hybrids. Although for a long time in a feeble state of health, Mr. Carmichael retained to the last his interest in horticulture, and only a few years ago exhibited a new Godetia of his own raising at one of the Royal Caledonian Society's shows. His remains were interred in Warriston Cemetery, Edinburgh, on the 9th inst., the funeral being a private one.

## SOCIETIES.

### TRURO DAFFODIL SHOW.

ON the 8th inst. the Cornwall Daffodil and Spring Flower Society held their annual show in the spacious Market Hall of Truro. The patroness of the society is Her Majesty the Queen, and the president is Her Royal Highness the Princess of Wales, while among the vice-presidents are the Earl of Mount Edgumbe, the Viscountess Falmouth, and Mr. T. A. Durrien-Smith of the Isles of Scilly. The season is undoubtedly a late one, and the majority of the Narcissi were perhaps scarcely so large as usual, though there were some notably fine examples of the better known varieties, and the show of recently-raised seedlings was particularly excellent and large. In the Hon. John Boscawen the society are fortunate in possessing a most capable and energetic hon. secretary, whose arrangements left nothing to be desired. The exhibits, though numerous, were given ample space, which added much to the comfort of visitors bent upon making a close inspection of the flowers staged, a process often rendered difficult at flower shows owing to overcrowding. Rhododendrons were exhibited in quantity, and added an effective display of bright colouring. Violets were present in quantity, and were of a high order of merit, while the competition for herbaceous spring flowers and for unforced, hard-wooded flowering shrubs was very keen, and brought together a remarkable assortment of outdoor flowering subjects such as would be impossible for any district but the south-west of England to produce at this season of the year. The day was fortunately fine, and the attendance was very large, including not only residents in Cornwall and the neighbouring county of Devon, but representatives of the Metropolis and other distant centres.

#### PRIZE LIST.

The best collection of not less than thirty or more than forty varieties of Daffodils: First, Mr. J. C. Williams, with an excellent stand containing King Alfred, very fine; Jacko, Monarch, Hector, Weardale Perfection, Homespun, a clear yellow, distinct in form; White Queen, Incognita, unique with its spreading buff cup; Buttercup, Cardinal, with white perianth and brilliant orange cup; Firework, with pale lemon perianth and wide scarlet-rimmed cup; Dante, a beautiful poeticus; Firebrand, pale canary perianth and orange-scarlet cup; Minor Poet, lemon-white perianth and spreading orange-scarlet cup, after the style of Will Scarlet; the delicately-beautiful White Lady, and seventeen unnamed seedlings, many of which were quite first-class, No. 300, a poeticus, having a wide central disc of bright yellow, edged with a broad band of scarlet, the petals, however, slightly lacking in breadth; second, Rev. A. T. Boscawen, with a very bright stand, containing, amongst others, Lucifer, still the most striking of all Daffodils, very fine; Flambeau, Oriflamme, and C. J. Lackhouse; third, Lady Margaret Boscawen.

In Classes 2 to 9, inclusive, only flowers from bulbs not exceeding 10s. in value were admitted.

Six distinct Magni-Coronati: First, Mr. E. H. Williams, with M. J. Berkeley, Emperor, Golden Bell, Victoria, Horsfield, and Mme. de Graaff; second, Miss Mabel Williams; third, Mr. Johnathan Rashleigh; fourth, Mrs. W. Tyacke.

Six distinct Medio-Coronati: First, Mrs. W. Tyacke, with Katharine Spurrell, Crown Prince, Lunworth, Mrs. Langtry, Frank Miles, and Princess Mary; second, Mr. R. J. Daniell; third, Miss Mabel Williams; fourth, Mr. Johnathan Rashleigh.

Six distinct Parvi-Coronati: First, Mrs. W. Tyacke, with Falstaff, John Bain, Ellen Barr, Poeticus ornatus, Baroness Heath, and Beatrice Heseltinge; second, Mr. W. N. Carne; third, Mrs. J. Nowell-Usticke.

Six distinct Polyanthus Narcissus: Second, Mr. W. N. Carne; third, Mrs. J. Nowell-Usticke.

Fifteen distinct varieties, any section: First, Mr. E. H. Williams, with Victoria, Mrs. Langtry, Emperor, Cassandra, Empress, Poeticus ornatus, Lunworth, Minnie Hume, Princess Mary, C. J. Backhouse, Autocrat, albicans, P. R. Barr, Ellen Barr, and Santa Maria; second, Mr. A. Blenkinsop; third, Mrs. W. Tyacke; fourth, Mrs. J. Nowell-Usticke.

Finest bloom of Magni-Coronati: First, Mrs. W. Tyacke, with Mme. de Graaff; second, Mr. C. Dawson, with Victoria; third, Miss Rhoda Williams, with Mme. Plemp.

Finest bloom of Medio-Coronati: First, Mr. E. H. Williams, with Lunworth; second, Mrs. J. Nowell-Usticke, with Fairy Queen; third, Mrs. W. Tyacke, with Mrs. Langtry.

Finest bloom of Parvi-Coronati: First, Mrs. W. Tyacke, with Almira; second, Mr. E. H. Williams, with Almira; third, Miss Rhoda Williams, with John Bain.

Nine distinct Magni-Coronati: First, Mr. P. D. Williams, with Tenby seedling, Mme. de Graaff, Emperor, J. B. M. Cann, P. R. Barr, Victoria, Maximus, fine; M. J. Berkeley, very good; and Empress; second, Lady Margaret Boscawen; third, Mr. A. P. Nix.

Nine distinct Medio-Coronati: First, Rev. A. T. Boscawen, with Albatross, Mrs. Langtry, Seagull, Bridemaid, Lucifer, Madge Matthew, perfect, which received an award of merit as the best incomparabilis in the show; Gloria Mundi, Ensign, and Peach; second, Mr. P. D. Williams, whose stand contained Tom Tit, Bullfinch, Kittiwake, Barri Sensation, and four unnamed seedlings.

Six distinct Parvi-Coronati: First, Mr. P. D. Williams, with Horace, undoubtedly the finest of the poeticus section; Chaucer, Incognita, Ptarmigan, Blood Orange, and Redbreast. Three distinct double Narcissi: First, Mrs. J. Nowell-Usticke; second, Miss Mabel Vivian.

Finest bloom of Magni-Coronati in commerce: First, Mr. A. Blenkinsop, with Weardale Perfection, very fine; second, Mr. P. D. Williams, with the same.

Finest bloom of Medio-Coronati in commerce: First, Rev. A. T. Boscawen, with Lady Margaret Boscawen; second, Mr. P. D. Williams, with Diana.

Finest bloom of Parvi-Coronati in commerce: First, Mr. P. D. Williams, with Horace, excellent; second, Mr. E. H. Williams, with Oriflamme; third, Mr. C. Dawson, with Dante.

Finest bloom of English-raised Magni-Coronati not in commerce: First, Mr. J. C. Williams, with a fine unnamed white; second, Mr. J. C. Williams, with an unnamed bicolor with pale yellow trumpet; third, Mr. P. D. Williams, with Averil, white perianth with pale yellow, narrow trumpet.

Finest bloom of English-raised Medio-Coronati not in commerce: First, Mr. P. D. Williams, with a large, unnamed flower having a white perianth and yellow cup edged with orange; second, Mr. J. C. Williams, with Pilgerin, an English heart seedling, pale yellow; third, Mr. J. C. Williams.

Finest bloom of English-raised Parvi-Coronati not in commerce: First, Mr. J. C. Williams, with an unnamed seedling having a white perianth and spreading cup brighter in tint than that of Incognita; second, Mr. P. D. Williams, with Chaffinch, an English heart seedling with white perianth and cup edged with deep border of brilliant orange-scarlet; third, Mr. J. C. Williams.

The classes for English-raised seedlings not in commerce were particularly interesting, thirty-five blooms being staged, the majority of which, to the credit of Cornish growers, were raised in the county. A clear golden-yellow with an unfringed trumpet, which was passed over by the judges, was very distinct and striking, and was thought by many experts to have deserved the premier award.

One class was confined to exhibitors who had never won a prize at the society's shows, and another to children under fifteen years of age.

Three bunches of Anemones (excluding A. fulgens): First, Hon. Mrs. Gilbert.

Three bunches of Anemone fulgens: First, Miss A. C. Williams; second, Mrs. W. Tyacke.

Six varieties Polyanthus: First, Mr. P. D. Williams, with an excellent exhibit; second, Mrs. E. H. Williams; third, Hon. Mrs. Gilbert.

Three varieties Primroses: First, Mrs. E. H. Williams, with very excellent flowers; second, Hon. Mrs. Gilbert.

Collection of hardy herbaceous spring flowers, not exceeding thirty varieties: First, Mr. P. D. Williams, with double blue Hepatica, Anemone blanda, A. b. scythica, A. apennina, Chionodoxa Lucilike, C. sardensis, C. gigantea, double Arabis, Muscari Heavenly Blue, M. szovizianum subcoruleum, Tulipa saxatilis, T. odorata major, Fritillaria Melegris alba, Iris tuberosa, I. Warleyensis, I. orchitoides, Primula rosea, P. denticulata, P. d. alba, P. d. pulcherrima, Cardamine trifoliata, Erythronium giganteum, Daisy Alice, Caltha palustris fl.-pl., Omphalodes verna, Triteteia uniflora, Doronicum Harpur Crewe, Trillium sessile californicum, and Ficaria grandiflora; second, Mr. D. H. Shilson.

Collection of twelve varieties of hardy, herbaceous spring flowers: First, Mrs. A. T. Boscawen, with Iris tingitana, very beautiful; Fritillaria imperialis, F. obliqua and F. latifolia major, both of which received an award of merit; F. verticillata alba, Helleborus colchicus, Muscari Heavenly Blue, Primula denticulata alba, Parochetus communis, Puschkinia scilloides, Mertensia virginica, and Iris tuberosa; second, Mr. D. H. Shilson.

Three bunches single Violets, distinct varieties: First, Mr. R. Fox, with Kaiser Wilhelm, La France, and Princess of Wales.

Three bunches double Violets, distinct varieties: First, Mr. R. Fox, with Comte de Brazza, Marie Louise, and Lady Hume Campbell; second, Colonel F. J. Hext; third, Mr. Johnathan Rashleigh.

Three bunches single Violets, one variety: First, Mr. R. Fox, with Kaiser Wilhelm; second, Mrs. J. C. Williams, with La France; third, Colonel F. J. Hext, with Princess of Wales.

Three bunches double Violets, one variety: First, Mr. R. Fox, with Comte de Brazza; second, Colonel F. J. Hext, with Lady Hume Campbell; third, Miss Rhoda Williams, with Marie Louise.

The best group of Rhododendron blooms: First, Mr. D. H. Shilson, with a splendid collection of 150 trusses, amongst which was the new seedling Duke of Cornwall, a fine crimson with large leaves, which was awarded a first-class certificate. The trusses exhibited of this variety, though handsome, were far from representing it at its best, as the earlier ones with much finer flowers had passed their best at the time of the show, and only the later with smaller blossoms were available for staging. Other varieties and species were argenteum, Thompsonii, Shilsonii, Dalhousie, barbatum, fulgens, Countess of Haddington, albescens, aesterianum, Edgworthii, fragrantissimum, racemosum, Veitchii, arboreum, a. album, a. roseum, and numerous seedlings; second, Mr. R. Fox; third, Mrs. J. Williams.

Six varieties outdoor Rhododendrons: First, Mr. E. Backhouse, with Aucklandi seedling, which obtained an award of merit; Shilsonii, and four arboreum seedlings; second, Mr. R. Fox.

Six varieties of Rhododendrons grown under glass: First, Mr. R. Fox; second, Mr. D. H. Shilson.

Finest truss of outdoor Rhododendron: First, Mr. Johnathan Rashleigh, with argenteum; second, Mr. J. C. Dautubz, with eximium.

Finest truss of Rhododendron under glass: First, Mrs. J. Williams, with Nuttalli, splendid; second, Mr. R. Fox, with Glory of Penjerick.

Six blooms of outdoor Camellias: First, Mrs. J. Williams. Six blooms of Camellias under glass: First, Mr. J. C. Dautubz.

Finest bloom of outdoor Camellia: First, Mrs. J. Williams, with C. reticulata well over 7 inches in diameter; second, Mrs. A. T. Boscawen.

Finest bloom of Camellia under glass: First, Mr. J. C. Dautubz; second, Mrs. J. Williams.

Twelve trusses of Azalea mollis: First, Mr. D. H. Shilson.

Collection of twenty varieties of unforced shrubs: First, Mr. R. Fox, with Berberis Darwinii, Acer rubrum, Pittosporum tenuifolium, Olearia Gunnii, Forsythia viridissima, Acacia verticillata, Magnolia conspicua, Drimys aromatica, Erica mediterranea, E. carnea, E. arborea, Pyrus japonica, P. j. alba, Andromeda japonica, Cytisus racemosus, Daphne indica, Skimmia japonica, Azalea amena, and Pittosporum Tobira; second, Sir A. Pendarves Vivian, in whose stand were Embotrium coccineum, Grevillea sulphurea, &c.

# THE GARDEN

No. 1692.—VOL. LXV.

[APRIL 23, 1904.]

## THE AURICULA SEASON.

**T**HE Auricula season of 1904 is distinctly a late one all round, and the lateness applies to plants in the open border as well as to those under glass in houses and frames. The spring movement in the growth of the plants, which in a favourable season will begin at the end of January and early in February, was, owing to the wetness and coldness which then prevailed and continued for so long a period, considerably retarded; the want of invigorating sunshine was generally experienced. The retarding character of the season was especially seen in the case of plants in the open, for it is from such a supply of seed the alpine Auricula has to be depended upon. Even by the third week in April few plants will be in full bloom in the open border unless in warm and snug spots. The border Auricula does best in a fairly heavy soil, and when it is constantly saturated with wet, as in the autumn of 1902 and the early part of 1904, the effect is distinctly retarding. But when more kindly conditions prevail and with a rising temperature there comes a drier soil, invigorated by helpful sunshine, progress becomes rapid, and in the absence of cutting frosts flowers in plenty may be confidently anticipated. Primrose and Polyanthus have been in flower since October last, yet, notwithstanding such a waste of floral energy, the plants in April are very free, and there is every probability of a great improvement upon the scant seed season of 1903. It may be presumed this will be equally true of the border Auriculas.

In these days the majority of those who cultivate choice collections of Auriculas prefer to have them in adaptable glass houses for the sake of having them under more perfect control, and also for inspecting the plants in unseasonable weather. As a rule such houses are artificially heated. It must not be supposed that there is any attempt to force the Auricula, as the plant is impatient of such treatment. But it is well generally, and especially so in the case of scarce and expensive varieties, not to have the soil frozen hard about the roots of the plants in midwinter, as sometimes happens when they are in an unheated house or frame. The Auricula appreciates an equable temperature at all seasons, and if therefore a little artificial warmth is given at night, when frost and cold winds occur, it is in order to preserve as nearly as possible the conditions of the day temperature that artificial heat is applied so

that there shall be no critical check. The plants are thus brought along evenly, their vigour and health being cared for by the admission of abundant ventilation. A check from a fall of temperature when the pips are unfolding will materially affect the quality of the developed truss.

A considerable impetus has been given to the cultivation of the choice varieties of alpine and show Auriculas in pots during the past fifteen years. The show varieties in particular are very fascinating, so that their increasing popularity is not to be wondered at. Auriculas can be grown under conditions which are at the command of those with quite small gardens. At no season of the year are the plants without interest to the cultivator. It compels a constant round of attention which is a delight to the grower, and there is no other plant which undergoes such quick deterioration when neglected.

## AMONG THE SWEET VIOLETS.

For many years the Russian Violet was the only one well known in gardens. Although the blooms are small and the stalks very short, it is welcome in the borders, as it flowers in midwinter, and is very hardy and neat in growth. The first break that I can recollect was The Czar, raised, I believe, by Mr. Lee of Clevedon, Somerset, a noted grower. After that came the larger-flowered Victoria Regina, also from Mr. Lee. We then seemed to have reached a climax. For many years no better varieties came to the fore, until Mr. Charles Turner introduced the massive sturdy-flowered Wellisiana. This is still in cultivation, but is rather uncertain, and does not flower so freely as many, and in the open is only a spring bloomer. The next to appear was a Continental variety, Princesse de Galles, which under its English name, Princess of Wales, at once took a foremost position, which its Pansy-like flowers, sweet perfume, and very long stalks entitle it to retain even now, when so many so-called new ones are offered.

California, which as a spring-flowering sort is one of the best, appeared soon afterwards. It is very free and good, but not equal to the varieties Kaiser Wilhelm and La France, which are very much alike, and with the King of Violets cannot be easily separated. The flowers of the trio are very large, on stout, long foot-stalks, and they rank among the best for spring flowering. But for bloom in the autumn and early winter Princess of Wales is the best for the open. Gloire de France is so like La France that it is not worth keeping distinct. The Italian varieties, Italia, Primavera, Bourg la Reine, and Edmond de Terte are very

spreading in growth, and have large white centres; they are the Violets which come in such large quantities from the Riviera during the winter and early spring months, but, as grown here, are deficient in perfume and wanting in colour. Luxonne, which has a white eye, is a very good Violet, but not distinct enough from California to make it worth culture. Lee's odoratissima is a fine spring flower of pale slate-blue, very sweet indeed, but not a very good grower. The most distinct new large Violet is Admiral Avellan. This is very free, and has rich violet-purple flowers on fairly long stems, sweet, and striking in colour.

To come to the sorts with smaller blossoms, Reine Augustine is very fine, of a blackish violet colour, on wiry, dark stems, very free and striking. As a contrast, the two red Violets, Perle Rose and odorata rubra, are both good and alike, and with Reine Augustine produce sheets of flowers which are conspicuous even from a distance. If contrasted with Rawson's White (a form of the wild white Violet), they would all be charming to form masses on banks or to front partially shaded shrubberies. The four are very sweet.

St. Helena is a perfectly distinct pale blue flower, very sweetly scented, vigorous in growth, and it flowers in autumn and spring too; Princess Beatrice is practically the same as Victoria Regina; Princess Soumonte is a sky blue striped flower, of no value except as a novelty; and the yellow Violet (odorata sulphurea) is pale orange-yellow, a botanical species or variety, but it has no scent to speak of, and is only a curiosity.

These are all the single varieties which I have grown and proved in the open fields. Where cultivated in the stronger soil of gardens the blossoms are much larger. For a continuous winter supply in frames Princess of Wales, La France, and California are the best, but the double sorts about to be named are special favourites for this purpose.

Amateurs frequently do not get full value from Violets, because they neglect to put out fresh plants each year in April. For winter flowers this is most essential, and the old beds can only be depended on for blossom in March and April, except in a warmer county than Kent. The past wet and "choppy" winter weather has been destructive of a crop, but since the end of March there have been fine long stalks and bold flowers.

## VIOLETS WITH DOUBLE FLOWERS.

The old double purple Violet, which at one time was kept to a single crown and sold as a Tree Violet in the market, is now represented by Chambers' Victoria, very double, and deliciously sweet, but too short in the stalk when grown outside. Speaking generally, the double Violets are only successful when placed in cold or slightly heated frames in September. They should be close to the glass, and have free ventilation on all fine days.

Marie Louise is perhaps the best of all; its grey-blue blossoms with white centres are very charming, it is very sweet, and flowers the whole winter. Comte de Brazza's White is a fitting companion for the above. The flowers are large and very sweet. This is also called Swanley White. The old Neapolitan is of a pretty mauve-blue, and rather later to flower. De Parme is practically the same. Mrs. Astor is a reddish-flowered Violet, which is hardiest with me in the open, and produces its flowers very freely. Like Marie Louise it has a white eye, and is very taking. Lady Campbell is in colour between the Neapolitan and Marie Louise.

Some years back a very large-flowered double white, with purple outside petals—Reine des Violettes—was introduced, but it has fallen out of culture. The blossoms are very fragrant. These notes may be very useful to planters at this time, when new beds should be made.

Maidstone.

GEORGE BUNYARD.

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 5, Southampton Street, Strand, London.

### CINERARIA STELLATA.

Now that the colours of these starry Cinerarias have been so greatly improved they are quite invaluable for the greenhouse in spring. Messrs. Webb and Sons, Wordsley, Stourbridge, have sent us some heads of flowers of their strain of *C. stellata*, and among the many bright and distinct shades of colour are the following: Palest lilac-pink (very charming), rich blue, pale blue, violet, magenta, purple, and lilac-rose. We have not seen the plants, but judging from the number of blooms in each spray we should imagine they must have been finely flowered. Messrs. Webb's strain is fully typical of the improvement that has been effected by the hybridiser in these flowers.

### PRIMROSES AND POLYANTHUSES FROM BRONWYLFA, ST. ASAPH.

Mr. W. A. Watts sends a superb gathering of Primroses and Polyanthuses, raised by the sender from carefully selected seed. The Primroses began to bloom in the autumn, and continued to do so during winter. The seed was sown in the autumn of 1902; the young plants were pricked out in boxes in the early spring, and planted out as soon as large enough about June. The soil in Mr. Watts' garden is a good loam inclined to be heavy, and this suits them admirably. The flowers were as fine as anything we think we have seen in the Primrose way; they were not only large in size, but varied in colouring, ranging from the purest white through crimson, reds, yellows, and other shades, and richly scented. A well-selected race of Primroses indeed.

### SEEDLING DOUBLE DAFFODILS.

Mr. Cornhill, Byfleet, Surrey, sends an interesting series of seedling Daffodils to show what can be done with the pollen of *Telamonius plenus*. We hope our correspondent will continue his work of hybridising, and instead of *Narcissus moschatus*, which has a weak growth, try *Mme. de Graaff*

or some other vigorous type. Rosette is a very pretty flower. Mr. Cornhill also sent the following note: "Flowers of seedling Daffodils which have been raised here during the past fifteen years; they are the result of crossing single sorts with *Telamonius plenus*. The small white is between *N. moschatus* and *N. Telamonius*. As you will see, it is even more double than the pollen parent, which in the matter of colour has exercised but small influence on the progeny, the blooms being almost white. Only three plants came from this cross, two of which have bloomed, the other being simply a glorified *moschatus*. That named Rosette was shown several years ago. It is between *obvalaris* and *Telamonius*, and is earlier than the latter by some days. It ought to be a good market sort."

### NARCISSUS CERNUUS VAR.

Mr. T. Smith sends from Daisy Hill Nursery, Newry, a very distinct, though not very beautiful, form of *N. cernuus*, and our correspondent writes that it "has now flowered for four seasons and never varies." The colour is that of the species, but the form is distinct and not without a certain quaintness; the segments are, as it were, divided, reminding one of those of a Honeysuckle flower, and notched at the apex.

### POLYANTHUSES FROM BATH.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Twerton-on-Avon, Bath, send a selection of Polyanthuses which are not only of very beautiful colours but remarkably strong. The whites and deep crimsons are especially fine, the shades very pure and telling.

### A REMARKABLY FINE DENDROBIUM.

Mr. Robert H. Measures, The Woodlands, Streatham, has sent us a flower of *Dendrobium wardianum* var. *Miss Measures*. Mr. Measures says: "I think you will agree with me that it is one among many thousands, and few people would believe it possible to have *D. wardianum* so fine." We do not remember to have seen a variety of this popular Orchid with such large flowers. From tip to tip of the petals the distance was just over 5 inches, the width of each petal was 1½ inches, and of the upper sepal 1 inch. Sepals and petals are waxy white, the ends tipped with purple; the lip is large, and has a centre of rich yellow.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- April 26.—Birmingham Auricula and Daffodil Show (two days).
- April 27.—Chesterfield Spring Show.
- May 1.—Düsseldorf International Horticultural Exhibition opens.
- May 3.—Royal Horticultural Society's Drill Hall Meeting; National Amateur Gardeners' Association's Meeting.
- May 11.—East Anglian Horticultural Club's Meeting; Royal Botanic Society's Horticultural Show.
- May 17.—Royal Horticultural Society's Drill Hall Meeting.
- May 19.—Bath and West of England Horticultural Show at Swansea (five days).
- May 25.—Edinburgh Spring Show (two days).

**New Fellows of the Royal Horticultural Society.**—At the general meeting held on Tuesday last fifty-one new candidates were elected Fellows, including the Marchioness of Winchester, Lady Brunnet, Hon. Mrs. Raymond White, Hon. Mrs. Warren Vernon, Mr. R. H. Adams, Mr. B. Lewis Day, and Mr. Arthur Greenstreet.

**Requests to gardening charities.**—We learn from Messrs. G. Nicholson and W. Botting Hemsley, the executors under the will of the late

Mr. H. Herbst, that the deceased bequeathed £100 each to the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund.

**Mr. S. T. Wright.**—The address of Mr. S. T. Wright, Garden Superintendent to the Royal Horticultural Society, after the 23rd inst. will be R.H.S. Gardens, Wisley, Ripley, Surrey.

**Tring Park Gardens.**—It is stated that Mr. Dyer, who has been foreman in the gardens at Tring Park for eleven years, has been appointed to succeed the late Mr. E. Hill as head gardener to Lord Rothschild.

**Belvoir Castle spring flowers.**—A few of the earliest flowers, such as *Rhododendrons altaclarensis* and *nobleannu*, *Saxifraga ligulata*, *Polyanthus* (white and yellow), and *Hyacinths* and *Narcissi* in variety are now at their best, but the greater part will not be in full flower until after May 2, owing to the lateness of the season. The flower gardens are open to the public.

**Abnormal flowering of Daffodils.**—Referring to "S. G. R.'s" note and the accompanying photograph of a *Narcissus pallidus præcox* with three blooms on one stem, I have once noted a flower-stem of this variety with two blooms, and amongst other unusual developments in Daffodils I have this season had a *Horsfieldii* bloom with eight stamens and another with seven, and have seen a Sir Watkin in a garden here with eight petals or perianth segments, and another with seven. I may say that my *pallidus præcox* has not again shown two blooms on one stem.—W. A. WATTS, *Bronwylfa, St. Asaph.*

**The proposed gardeners' association.**—I do not think that it is fully understood by many gardeners that a real and substantial effort is now being made to found a Professional Gardeners' Association, open to all properly qualified gardeners, and for the benefit of all. (1) Registration of gardeners, (2) regulation of wages, and (3) regulation of hours are what are set forth as the objects in view by the strong provisional committee which at present has the affairs of the proposed association in hand. What could be better? No one can deny that the above are urgent needs in the gardening world of to-day, and I have strong hopes that a realisation of the great benefits they will reap from No. 1 (registration) will induce many employers to meet pacifically the association's suggestions regarding Nos. 2 and 3. I will conclude by urging all gardeners to bestir themselves and actively aid this movement on their behalf. An excellent example has been set by the Kew gardeners, sixty of whom met last week, and practically signified their approval of what is being done by making a collection towards the cost of the pamphlet about to be distributed by the provisional committee. Donations to this end will be gladly received by the hon. secretary of the committee, W. Watson, Descanso House, Kew.

**Corylopsis himalayana.**—On a west wall at Kew an example of this rare species is now (early April) bearing a number of racemes of flowers. Like all the others, the flowers are often damaged by frost. Altogether there are four species in cultivation, all being Asiatic, China and Japan claiming three and India one. *C. himalayana* was first discovered by Mr. Griffith in Bhotan, at a height of from 5,000 feet to 8,000 feet. It was subsequently found in the Khasia Mountains at a lower elevation of 1,000 feet. According to the description of this plant given in the *Botanical Magazine*, it varies considerably in size, sometimes being met with assuming the proportions of a small tree 20 feet high, and at other times having the habit of a Hazel bush. It was first introduced into English gardens in 1879 by Dr. King, who sent seeds of it to Kew. The leaves are Hazel-like in appearance, broadly ovate, and 4 inches to 6 inches long with prominent nerves. The flowers are primrose-yellow, and in pendulous racemes 2 inches or so long. At the base of the flowers moderate-sized bracts are produced which are similar in colour to the flowers. As a wall plant it may be cultivated in the warmer parts of the country, and in Cornwall it will doubtless thrive in the open, but in the colder parts of this country a cold house should be given.—W. DALLIMORE.

**Spring flowers at Hampton Court.**

We have never seen this famous old garden so bright at this season of the year. A visit to the palace and gardens in the delightful spring weather which has so far prevailed will be well repaid. Hyacinths, Tulips, Narcissi, Grape Hyacinths, Scillas, Chionodoxas, Polyanthus, Arabis, Double Daisies, Primroses, and many other things are flowering in profusion.

**Bamboo flowering in a pot.**—A Bamboo (*Arundinaria Simoni*), an offshoot of one of my outdoor "tree Grasses," is now flowering in a 6-inch pot in the conservatory. It is a young, straggling, and rather weakly plant, 4½ feet in height. It will be curious to see whether the act of flowering either kills or disables the Bamboo.—F. C., *Erleigh, Reading.*

**Dusseldorf International Exhibition.**—The following is a list of all the shows which will form part of the above exhibition, which opens on May 1: May 1 to 9, general spring show; May 6 to 9, special display of French and Italian cut flowers; May 1 to 3, Orchid show; May 12 to 15, exhibition of vegetables, forced fruits, and floral decorations; June 12 to 23, displays of cactaceous plants; June 25 to 29, Rose show; September 3 to 11, general autumn exhibition; September 6 to 13, Dahlia show; September 17 to 20, exhibition of floral decorations; September 24 to October 2, vegetable show; October 8 to 16, fruit show; October 20 to 23, exhibition of Chrysanthemums, Orchids, and Cyclamens. Also from May 12 to the end of August there will be weekly exhibitions of various products.

**Belgrove, Queenstown.**—The *Revue Horticole* for April 16 contains an appreciative article by M. Edouard André upon Mr. W. E. Gumbleton's Irish garden. M. André writes: "It would be impossible to enumerate all the species and varieties of interest that Mr. Gumbleton showed to us during a hurried visit. Everywhere we saw evidence of careful selection; bad or indifferent plants are rigorously rejected. The result is a collection of plants quite out of the ordinary, charming to the amateur, and incomparable as an example of what ornamental plants should be. From Kew and other gardens plants are often sent to Mr. Gumbleton for experimental culture, as they grow better at Belgrove than near London, and enable a correct opinion to be formed of their decorative value." M. André gives a list of some of the rare plants to be found in Mr. Gumbleton's garden.

**Primroses at Hounslow.**—The strain of coloured Primroses now being grown in Mr. R. Dean's Primrose Nursery, Bath Road, Hounslow, has always been remarkable for the deep and even brilliant hues of rose-purple and crimson found among them. They are now in the full flush of their spring beauty, and the plants have been in bloom continuously since October last. Finding a demand for seeds of Primroses in colours, such as crimson, rose, purple, white, &c., they are grown in beds of distinct tints, though no one colour can be depended upon to reproduce itself in great proportion from seeds. The crimson shades are particularly brilliant in the sunshine. Mr. Dean endeavours to obtain broad, stout, well-rounded flowers, with pure yellow circular centres, such as are prized in the alpine Auricula. To this end seeds are saved only from the finest flowers of each colour; the seeds are sown either in the autumn or in early spring, pricked off into boxes, and, as soon as large enough, planted out in the open. A large batch of seedlings is thus raised every year. A bed of white varieties in full beauty shows considerable size of bloom and purity of colour. The finest results are from strong two year old plants; after that, with the exception of a few particularly fine varieties retained for pedigree purposes, the old plants give place to younger ones. Some selected yellows were bearing very large flowers. The blue varieties have done somewhat indifferently in the heavy loam owing to the rains of autumn and winter, but in a cold frame with the protection of glass they are very fine.

**A flower fete in Dublin.**—In another column will be found a report of a combined

bazaar and flower show which was organised by Lord and Lady Ardilaun on behalf of the Royal Horticultural Society of Ireland. Lord Ardilaun, who opened the floral fête, said: I have no doubt you all know that the society was in very deep water, and that there was some difficulty in avoiding its bankruptcy. The only way then that was open to us was to have this floral exhibition. We trust that most of the citizens of Dublin will come to see it, and thus aid the society which has done so much good in the cause of horticulture for many years, and that it will be re-established on a sure and firm basis. Mr. F. W. Moore said it devolved upon him as chairman of the council of the society to propose a vote of thanks to Lord and Lady Ardilaun for all that they had done for the society, and for the trouble they had taken in coming to open the show. Most of those present were aware that the idea of holding this show was inaugurated at a meeting convened by Lady Ardilaun a few months ago. Since that time Lady Ardilaun had gone to great trouble and inconvenience in order to be there. This floral fête was also made the

Kew a large bush may be seen in flower in the *Berberis dell.* In the open it grows about 6 feet high, but in the temperate house at Kew it is quite 4 feet higher. In growth it forms a dense bush composed of numerous reddish branches. The leaves are broadly lanceolate, 4 inches to 6 inches long, with serrated margins. The flowers are yellow, and in axillary, pendulous racemes, each of which contain a dozen or more flowers. It thrives in any good garden soil, and gives very little trouble.—W. D.

**Presentation to Mr. Hutcheson, of Messrs. Storrie and Storrie, Dundee.**—In honour of his approaching marriage, Mr. D. C. Hutcheson, of the firm of Messrs. Storrie and Storrie, nursery and seedsmen, Dundee, was entertained at a smoking concert held in Young's Rooms, Dundee, a few days ago, and was presented in the course of the evening with a valuable marble clock and ornaments, the gifts of a number of horticultural friends. Bailie Melville presided, and the presentation was made by Mr. William Grant, Fernhall Gardens, in an appro-



A TYPE OF BUNCH-FLOWERED PRIMROSE SHOWN AT THE NATIONAL AURICULA SOCIETY'S EXHIBITION ON TUESDAY LAST.

occasion of the annual spring show of the society, and there were many groups of flowers, fruits, and vegetables, besides the displays made by the flower stalls. Among the presidents of the stalls were Lady Ardilaun, the Countess of Mayo, the Countess of Leitrim, Lady Bellew, Viscountess Skerrin, Lady Holmpatrick, Hon. Misses Hamilton, Lady Arnott and Miss Arnott, Lady Talbot de Matahide, Lady Ashtown, Lady Castlerosse, and the Misses Plunkett. The first day of "La Floralie," as this fête was called, fully realised all the hopes of its promoters.

**Stachyurus præcox.**—Two species of *Stachyurus* have been introduced to our gardens, *S. præcox* from Japan and *S. himalaicus* from the Himalaya. Neither are largely grown, and *S. himalaicus* is rare. *S. præcox* is widely distributed about the mountains of Japan, and is also stated to be cultivated largely in Japanese gardens. At

priate speech. Mr. Hutcheson, in thanking the donors, made a feeling and snitable reply. Mr. David Storrie, who also spoke, assured those present that he felt that those who had subscribed were not only showing regard for Mr. Hutcheson, but were also doing an honour to the firm with which he was connected. Mr. Storrie also referred in high terms of appreciation to Mr. Hutcheson's work in connexion with the firm in the several positions he had occupied—of apprentice, journeyman, manager, and partner. Miss Brand, one of the employees of the firm, afterwards presented Mr. Hutcheson, on behalf of the staff of the nurseries and seed warehouse, with an easy chair and a shaving mirror, as a token of their regard and esteem and of their good wishes. Mr. Hutcheson briefly replied. The toast of the guest of the evening was proposed by the chairman and most heartily received.—S.

**Princes Street Gardens, Edinburgh.**—In consequence of some renewals rendered necessary by sewage works in the West Princes Street Gardens, Edinburgh, the gardens have been closed to the public for a short time. The opportunity is being seized to make some desirable improvements and renovations. It is probable, also, that the greenhouses will be removed to Inverleith Park, where the other glass structures used for the growth of the plants required for the parks stand. The Parks Committee have agreed to recommend that this should be done at a cost of about £1,300. In the East Princes Street Gardens there will shortly be a fine display of spring flowers. A number of the Narcissi are in bloom in the more sheltered parts, and Hyacinths, Tulips, and other flowers are coming on rapidly.

**Fruit Industry Government Committee.**—The departmental committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 13th, 14th, and 15th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Monro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, F.R.S., the Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). On the 13th inst. Mr. George Hughes, Mr. E. T. Field, and Mr. J. H. Wakeman-Best as Worcestershire growers; on the 14th Mr. W. Welchman, Mr. Collins Clayton, both representatives of the Wisbech district, and Mr. Kruse, a grower from Truro, Cornwall; and on the 15th Mr. G. Kerswell, Mr. J. Trevathan, as Devon growers, and Mr. P. Spencer Pickering, M.A., F.R.S., as a technical expert, gave evidence.

**A new early Onion.**—This is known as Yellow Globe. I am not certain if it has been put into commerce, but I saw it last season in the trial seed grounds of Messrs. W. W. Johnson and Son, Limited, seed growers, Boston. It is so quick in turning in that it ripens with the earliest of the Italian Queen Onions, which are soft and do not keep long. But this new type is a yellow-skinned Onion, quite hard and lasting, so much so that it has been known to keep perfectly sound and fit for table use for a year. It produces but very little top. Its prime characteristic is the quickness with which it turns in. It can be sown at the same time as the Early Queen type.—R. D.

**Auriculas at Slough.**—In the Auricula world there are few more honoured names than Turner of Slough. The firm has never lost its enthusiasm for a flower that is interesting to the florist and invaluable in the garden in spring, when the beautiful colourings and warm, rich fragrance seem to have a special delight. Perhaps it is the feeling of joy that spring is born and hedgerow and garden are bursting into flower or leaf; but there is another reason, the Auricula gives its flowers freely for small expense in seed and labour. We are not writing of the edged varieties but of the many beautiful seedlings selected from Mr. Turner's own seed, which fill one large house. We went carefully through this collection, being interested in the self and shaded flowers, and could not discover a seedling that was poor in form or in colour. The alpine Auriculas have always received special attention at Slough, and we have to thank this firm for many productions. Some are too familiar to the Auricula grower to describe, others are in bloom now for the first time, seedlings that will please the growers of the future. Some, too, are in pots, others in the open ground; but wherever they are the colours and fragrance are not lost. We urge those who have not yet grown the alpine Auriculas to do so. If the garden is too small to plant them out of doors grow a collection under glass, and study the flowers in comfort, for they are worth as much care in growing them in pots as anything else that requires glass protection. There is abundant choice, and with a good collection it will be possible to enter into rivalry at the exhibitions of Auriculas held in spring. The self varieties at Slough are exquisite. The blue sapphire colouring of the variety, named after the precious stone sapphire, is very beautiful, and one of the best things that has been raised by the

Rev. F. D. Horner, whose notes are always welcome in THE GARDEN. Then there is the rich red of Lord of Lorde, the sapphire shading of Elegance (Turner), and the dark marone of Black Bess. Mr. Turner excels in the other classes, those that require the education of a whole-hearted florist to thoroughly enjoy, we mean the edged varieties green, grey, and white. The flowers of these groups are a study of shades, and the collection here is complete. We noticed among the green-edged, Lovely Ann and the Rev. F. D. Horner; among the grey-edged Colonel Champneys (a flower of warm colouring), George Rudd, and William Brocklebank; and among the white-edged Acme, Rachel, and Smiling Beauty. Mr. Turner also has several seedlings. One is Lyric, a flower, we think, will surprise even the Auricula enthusiast when it is exhibited. The flower is of perfect shape, finely edged, and with a splendid paste or centre. But it is impossible to describe such a collection as this without introducing a list of names. Descriptions are not, as a rule, entertaining. The best way for those who intend to grow Auriculas is to visit a good show of them, or such a nursery as Mr. Turner's.

**Clerodendron myrmecophilum.**—The introduction of a thoroughly good flowering plant is always interesting, not only for its own intrinsic beauty, but also for the possibilities that may be in time developed by the hybridist. Whether this last-named will benefit by the introduction of the Clerodendron in question is at present problematical, but there can be no doubt that we were introduced to a thoroughly good flowering plant for the stove at the Drill Hall on the 5th inst., when Clerodendron myrmecophilum had a first-class certificate awarded it. About a year ago it flowered at Kew for, I believe, the first time in this country, and formed the subject of several notes in the horticultural papers. The numerous members of the genus Clerodendron differ considerably in their habits and cultural requirements, that under notice forming an erect-growing plant, clothed with long, ovate, lanceolate leaves of a glaucous hue, and terminated by a large pyramidal-shaped panicle of flowers, arranged in regular whorls. The individual blossoms are about 1½ inches across, and of a bright orange-amber colour. As in several other species, the long and slender stamens are very noticeable, their colour in this instance being bright red. This Clerodendron is a native of Singapore, where it is said by its discoverer—Mr. Ridley, of the Botanic Gardens there—to grow about 3 feet high, and as being an unbranched or few-branched shrub. Certainly its behaviour here suggests that, like the Aphelandras, it will be seen to the best advantage when confined to a single stem. From its native habitat the warmest part of the stove will be in all probability necessary to its well-doing. There is little doubt that this Clerodendron has a great future before it; at all events, if this does not prove to be the case I shall be much disappointed.—T.

**A way of growing the Forsythia.** Probably the finest effect at Kew annually is made by Forsythia suspensa. As a rule it is at its best about mid-April, and at that time it is a really glorious sight, the general outline of the plant being light and graceful, the branches, many of which are from 4 feet to 5 feet long, being laden from end to end with bright golden blossoms, as many as ten flowers often appearing from a single bud. Though a well known and common shrub it is rarely met with in such fine condition as at Kew, and visitors are repeatedly asking for information respecting the Kew method of culture. With this in view I am giving a few hints as to the necessary treatment required for obtaining the best results. Until the young plants—which by the way are raised from cuttings—are three years old they are kept in the nursery. At the end of the second year they are cut back fairly hard to encourage stout branches near the ground line. When three years old they are placed in permanent positions, beds of rich loamy soil 1½ feet to 2 feet deep being provided for them. As soon as the flowers are over the spring following the planting all the strongest growths are headed back to a height of 2½ feet or 3 feet above the ground, weak

branches being removed altogether. During summer a number of strong branches are made from these cut-back ones, while several strong shoots also spring from the base. These become well ripened and flower finely the following spring. After the flowers are over, pruning is done in a similar way to the previous year's, and the plants being well established very strong shoots are made, branches 4 feet to 5 feet in length being common. From this time onwards an annual top-dressing with manure is given, severe annual pruning being an exhaustive process. The points to be borne in mind in practising this method of culture are to prune as soon as the flowers are over, so as to give as long a growing season as possible, thin the spurs well, and substitute young for old branches when an opportunity occurs. When grown to cover a wall or trellis the main branches are allowed to extend as far as desirable, and all secondary branches are spurred back. When grown on this system of severe pruning it is not so long lived as when left to grow naturally; it will, however, go on well for at least ten or twelve years, and, as it is readily increased from cuttings, a bed can be easily renewed. There are two forms of *F. suspensa* in cultivation, one being of much weaker and more pendulous growth than the other; of the two the stronger one is best fitted for beds in the open, the other being more suitable for walls. Although this pruning has such favourable results with regard to *F. suspensa* it does not do with either *F. viridissima* or *F. intermedia*, a slight thinning at the most being all that is required by either of these.—W. DALLINORE.

**A rare double blue Hepatica.**—Those interested in the Hepaticas are to some extent aware that there are several forms of the favourite double blue form, which is rather difficult to keep in health in some gardens. There is some difference in the shade of blue, and also in the size of the blooms. It is not generally known, however, that there is in existence a very distinct form, which has its flowers with only the anthers in the centre converted into "petals" (if one may take the liberty of using this term to make the matter clear to the non-botanical reader). The outer portions of the flower are of the ordinary form of the single blue, so that the flower reminds one in its formation of the blooms of plants with what are commonly called "guard petals." I was indebted to Mr. Boyd of Faldonside for bringing it before my notice, and this season he has sent me flowers of this variety. He informs me that it has been in a Wiltshire garden for many years. The revived taste for the Hepaticas makes this form of great interest at the present time.—S. ARNOTT.

**A new hardy Calanthe.**—Although I am unable to say how many hardy species of Calanthe there are in cultivation, several works of reference I have consulted give none at all, and in the "Kew Hand List of Herbaceous Plants" only one is mentioned, namely, *Calanthe japonica* (Japan). Evidently then there are not many hardy species known in gardens. It is all the more interesting, therefore, to note the exhibition of a new one. At a show held in the Botanic Gardens, Regent's Park, last week, under the auspices of the Royal Botanic Society, Messrs. Cutbush and Son, Highgate Nurseries, N., sent *Calanthe discolor speciosa*, described as a new hardy plant from Northern Japan. The specimen shown was about 12 inches high, the small, dainty flowers having green and brown sepals and petals and pink lip. Judging from its appearance this Calanthe would seem to promise well either for culture in pots in a cold house or for planting in the rock garden. It is of neat habit of growth, and even out of flower would be noticeable by reason of the attractive leaves. At the same exhibition Messrs. Cutbush also showed *Daphne Genkwa* and *Megasea gigantea*, a vigorous plant with heads of large pale purple flowers, and newly introduced from Yunnan, China. Another new plant that attracted attention was *Verbena F. A. Bevan*, which has pink flowers with white centre. It was shown by Mr. Henry Parr, gardener to F. A. Bevan, Esq., Trent Park Gardens, Barnet.—A. H. P.

**Trees and shrubs in flower at Finsbury Park.**—Mr. John Melville, superintendent of Finsbury Park, writes that the trees and shrubs in flower in the conservatories there are now at their best, and make an excellent display. They are invaluable spring-flowering greenhouse plants, and a group of well-grown specimens is most instructive.

**Kew gardeners and organisation.** A meeting of gardeners employed in the Royal Botanic Gardens, Kew, was held on the 11th inst., sixty being present. Mr. J. Besant occupied the chair. After a lengthy and interesting discussion of the tendencies and results of associated effort, the following resolution was put to the meeting, and adopted with enthusiasm: "That this meeting of gardeners employed in the Royal Botanic Gardens, Kew, heartily supports the action of the provisional committee of the proposed British Gardeners' Association in its efforts to secure: 1, registration of gardeners; 2, regulation of wages;



STYLOPHORUM

DIPHYLLUM.

(Slightly reduced.)

Drawn by H. G. Moon.

3, regulation of working hours; and urges all gardeners and gardeners' societies to support the movement by every means in their power." Donations towards the initial expenses, amounting to several pounds, were subsequently collected.

**Judging Grapes by points.**—Probably the "Rules for Judging Grapes" will be well understood by intending exhibitors at Shrewsbury, but the point at issue is not the "Rules for Judging," but an explanation is wanted of the principle on which judging by points in Grapes is based, i.e., a correct definition of the eleven separate points which may be given as the maximum to a perfect bunch of Muscat Grapes. Further, is it possible to find nine points as the maximum that may be given to a perfect bunch of any other variety of Grape, and how are these individually defined?—J. P. LEADBETTER, *The Gardens, Tranby Croft, Hull.*

**Violet Dr. Jameson.**—Until recently this Violet was new to me, but it seems to be one that is well worth culture. The chief value lies in its earliness—now it is over—but it has been in bloom since Christmas time. The flowers are single, of good size, and there is nothing remarkable about the colouring, which is violet. However, on account of its freedom of flowering and earliness the variety Dr. Jameson is well worth a trial.—A. H. P.

**The Almond (*Amygdalus communis*).**—This is a beautiful tree for the shrubbery or lawn with a background of green foliage. Although common in Surrey, there are many gardens where this deciduous tree and its varieties have not yet found a place. Flowering as it does far in advance of other flowering trees and shrubs, it is worth a place in every garden. Sprays of the Almond are very useful for house decoration, a large vase of which looks quite as effective as many shrubs grown in pots, and the shrubs, of course, require attention all the year round.—F. W. PEARCE, *Templemere, Weybridge.*

**The Yellow Root (*Xanthorrhiza apiifolia*).**—A group of this curious shrub is at present in flower in the Berberis Dell at Kew, and though by no means so showy as many spring flowering shrubs, it is very interesting and worth looking after by those who like to grow out-of-the-way things. *Xanthorrhiza* is a genus of Ranunculaceae, the species under notice being a native of the southern United States and the only one grown. A distinctive feature about it is the bright yellow colour of the roots and stems, this colouring giving rise to the common name of "Yellow Root" by which the plant is known in America. It grows here to a height of from 1½ feet to 2 feet, and makes a spreading mass by reason of a large number of branches springing from one common root-stock. The leaves are bright green and pinnate, the lobes being again deeply divided. The flowers are small, star-shaped, dull purple in colour, and borne during late March and early April in loose, terminal panicles. According to the "Treasury of Botany" the American aborigines obtained a yellow dye from this plant, and American physicians of the present day use it medicinally as a tonic.—W. DALLIMORE.

## NOTES ON HARDY PLANTS

### GROWING THE BLUE PRIMROSES.

**W**ITH Miss A. Smallpiece, in her advocacy of cultivating blue Primroses in a cold house or frame in preference to the open ground, I am quite in agreement. The cold, wet winter has cost me many plants in the open, my soil being a heavy loam and retentive of moisture, but I had taken the precaution of growing all the best varieties planted out in a cold frame, and they are simply superb. Plenty of air has been given at all times, but they have been screened from the storms of rain so frequent in the early part of the year. Nor have they been hastened in any way. The soil about the plants was frozen hard on several occasions, and the lights drawn off on all favourable occasions. I think there is just a touch of delicacy in the constitution of the blue Primrose which makes it impatient of a retentive soil. Not only are the blooms freely produced on plants in the frame, but the blossoms are very fine and richly coloured. Few flowers produce such a variety of tints of blue as the Primrose; I have them from very deep blue to azure. I find that the blue Primrose seeds much less sparingly than the other coloured varieties, and, as there is every probability that seed will always be scarce, it is only reasonable to suppose that a better seed crop can be produced on plants under glass than on those in the open, exposed as they are to so many risks of climate and storm.

One of your contemporaries has taken me to task for stating that among the pale shades of blue are some approaching azure; but I feel justified in

using this term, for some of the flowers come very near to the clear azure blue of the sky. One requires to be a grower of blue Primroses and familiar with the varied tints of blue they furnish to understand something of the range of colours they present to view. I notice with some concern the tendency on the part of some of the blue Primroses to change to crimson the second year of flowering. It may be that the late Mr. G. F. Wilson developed the blue from the crimson, and that the act of changing colour is simply a reversion to an anterior form. It is well, therefore, to raise a batch of seedlings annually from seeds taken only from the very best flowers. That there is ample room for improvement in the blue Primrose was seen in the generally inferior character of those staged in various collections of plants in the Drill Hall on the 5th inst. Here and there was a large and well-formed variety, but many were small, washy, and ragged in outline. R. DEAN.

### STYLOPHORUM DIPHYLLUM.

THE genus to which this ornamental plant belongs is limited to two species, the present one being a native of the shady woods of the Western States of North America, and the other one, *S. japonicum*, is an inhabitant of Japan and a portion of North-Eastern Asia. A third species has been credited to this genus from the Himalayas under the name of *S. lactucoides*, the correct name of which is *Chelidonium franchetianum*, closely allied to the well-known *Meconopsis*. The chief difference between the two genera is in the dehiscence of the capsule, which in the present plant splits to the base into four valves. It was introduced into this country just fifty years ago. *S. diphyllum* somewhat resembles the common *Celandine* (*Chelidonium majus*) in general appearance; it grows from 1 foot to 2 feet high, with perennial rhizomes and glaucous, pubescent leaves, which are deeply pinnatifid, into five to seven oblong, sinuate lobed divisions. The bright yellow flowers remind one of those of the Welsh Poppy, and are about 2 inches in diameter, borne singly on short peduncles springing from the axils of the upper leaves. It is a free-flowering plant when placed in a suitable situation in strong loam and partial shade, where the flowers last longer than when it is planted in full sun, and is well worth a place in any but the most select border. The other species, *S. japonicum*, was not introduced into cultivation till nearly twenty years after *S. diphyllum*, and the true plant is seldom seen. It is of about the same size, both in habit and in the diameter of its yellow flowers, and differs in having pinnate leaves, the segments of which are evenly serrated. The whole plant is glabrous, not hairy, as in *S. diphyllum*.

W. IRVING.

## THE ROSE GARDEN.

### THREE NEW ROSES.

**A**T the exhibition of plants and flowers held in the Botanic Gardens, Regent's Park, recently Messrs. William Paul and Son, Waltham Cross, showed three new Roses in a group of these plants. They are named Agnes, Dora, and Warrior. Agnes is a Tea variety, with pale primrose-coloured flowers; Dora is a Hybrid Tea, which bears very large, silvery-pink blooms that should prove valuable for exhibition; Warrior is after the style of Papa Gontier, but the flowers, whose colour may perhaps best be described as deep cherry-red, are said to keep their colour better. The buds of this and of the pale yellow Agnes are of excellent form. Warrior is recommended as a first-class forcing variety. A. H. P.

### NEW HYBRID PERPETUAL ROSE.

(COMMANDANT FELIX FAURE.)

THE influx of Hybrid Teas—although it has enriched our gardens with a beautiful race of Roses—is directly responsible for the banishment of many of those gorgeous Hybrid Perpetuals which in

years gone by were the delight of all rosarians. Until, however, the great deficiency of good dark and vivid red varieties, which is the weak point of the Hybrid Tea class, is made good, it will be quite impossible to dispense with such magnificent flowers as A. K. Williams, Prince Camille de Rohan, Horace Vernet, and others of bright rich colouring. The variety under notice belongs to this latter class, and judging by its behaviour under glass I have no hesitation in pronouncing it to be a variety of the highest excellence, and one which will probably quite surpass Crown Prince and Duke of Edinburgh. Commandant Felix Faure was distributed for the first time in 1902 by a French nurseryman named Boutigny, who had previously gained several awards for it. The flowers are large, full, and well made, and from all appearances promise to be quite good enough for exhibition. The colour is a rich lake flushed with lurid crimson, and the fragrance is most delicious.

A. R. GOODWIN.

## ROSE ARCHES AND THEIR MANAGEMENT.

(Continued from page 268.)

ANOTHER point to remember is the thinning and training. Do not run too many shoots to a plant, or else instead of getting good growth it will become weak and puny, and, worst of all, immature. Take care also to tie the shoots which are left carefully in to the arch; a week's neglect may see them broken by wind or spoilt by chafing against one another. A bad plan, and one which is, unfortunately, sometimes seen, is to tie one shoot closely to another. Not only does this prevent both from getting the full benefit of sun and air, but they are rendered more liable to injury.

### FORMATION OF ARCHES.

I do not care much for the arches one usually sees in ironmongers' shops. Several are in use in the garden here, but their method of construction and fantastic design are against the Roses taking kindly to them. Simplicity never seems to appeal to the makers and designers of such garden ornaments as these, and as a rule little thought is given as to their suitability to the purpose they are made for. In this district Oak is easily obtainable, owing to the proximity of the Wyre Forest, and is very generally used for making pillars and arches. In order to make the uprights as durable as possible no better plan can be recommended than dipping them in the wood preservative which I referred to some time ago in the pages of THE GARDEN. Or another good plan is to procure ordinary drain-pipes slightly larger in circumference than the posts. These should be sunk in the ground to the soil level and the bottom of each filled up with cement. Then the posts should be inserted and the space between them and the pipes filled right up to the top with cement so as to exclude all moisture.

### IRON *versus* Wood.

For my own part I prefer arches made of iron and wire to those made of wood, simply because of their durability, and in our damp climate this is surely of some importance. Of course, I am well aware that many people have an objection to the use of iron, giving as their reason that the plants never do so well as when growing upon wood. However, I am not prepared to accept this statement, as some of the finest examples of Rose arches which it has been my good fortune to see were constructed of iron and wire. It is interesting to recall what Dean Hole says about wood *versus* iron: "The former commends itself to the eye (and the pocket) at once, and I well remember the satisfaction with which I surveyed an early experiment with Larch poles, the lower part well charred and tarred and driven deep into the ground, and looking from the first so rustic and natural. The Rose trees grew luxuriantly, and for three or four summers I esteemed myself invincible in the game of pyramids. Then one night there came heavy rain, attended by a hurricane, and when I went out next morning two of my best trees were lying flat upon the ground with their roots exposed (the poles,

having decayed, had snapped suddenly), and several others were leaning like the tower at Pisa or the spire of Chesterfield Church, some hopelessly displaced and others deformed and broken. Shortly afterwards I had another disaster, caused by a similar decay—the top of a pole, in which two iron arches met each other, giving way to a boisterous wind, and so causing a divorcement between Breunns and Adelaide d'Orléans, long and lovingly noited." Those who have gone through a similar experience will not be surprised therefore at my reiterating our veteran rosarian's advice to stick to iron. It is really wonderful what a neat and inexpensive arch can be made with old gas piping and wire tastefully arranged and painted. Where a greater outlay is possible a careful blacksmith will soon make the iron uprights and any other parts required, and by this means one can form one's own design and ensure that simplicity which is unobtainable in the ready-made arches. One of the best arches for Roses is made with four upright iron posts, two on either side of the walk, connected at the top with a cross-piece, and running parallel with the walk. The span is formed with two semi-circles of half-inch round iron, and the space between these should be trellised over with galvanised wire. This will make an arch of neat and light appearance, and quite strong enough for the purpose.

### POSITION AND ARRANGEMENT OF VARIETIES.

We are frequently and rightly told that a pergola should always lead somewhere, and that it should never have a dropped-from-the-sky appearance, as my friend Mr. Fitzherbert once expressed it. To a certain extent the same holds good for arches—at any rate, they should never be dotted about all over the place and allowed to obscure the view of more important objects. At the junction of walks or at intervals along a border of hardy flowers they look their best, more especially if care be taken to keep them in harmony with the other subjects they come in contact with. The best arches are generally those which have the same varieties planted on either side, but amateurs with limited space are not always willing to do this, and in that case a good plan is to plant a summer-blooming variety on one side and an autumnal bloomer on the other. There is no need for me to give a list of varieties suited to this work, as they have oftentimes been noted in THE GARDEN. Those who wish to have some arches and could not do the work last autumn should remember that there is yet plenty of time to carry it out by means of established pot plants, which are obtainable from any of our best Rose nurseries. May is quite soon enough to plant, and if the plants are well supplied with moisture they will soon make headway and catch up those which were planted in the autumn.

Worcestershire.

A. R. GOODWIN.

## THE HAMMOCK UNDER THE OAKS.

(Continued from page 261.)

**H**EPATICAS, so well protected by a woolly covering, which consists of silky hairs on stems, leaf-buds, and calyx, were the first plants to vouchsafe us a flower last spring. Sometimes they open on sunny banks in late February or early in March. The bank I am describing faces the south-east, and was covered lightly with dead Oak leaves through the winter. When this covering was removed late in March the Hepaticas were just ready to bloom. They were soon followed by colonies of Scillas, Blue-bells, and Chionodoxas. Then came the sheets of Mertensia virginica, which had been interesting for some days before they flowered for their dark plum-coloured, almost black, leaf-buds, peering above the mould, and growing lighter almost

every hour, until the expanded leaves change to a dull green, fall back, and disclose the scorpioid racemes of pink buds and light blue flowers within. Veronica amethystoides was a sheet of blue early in May, and was soon followed by the blossoms of a pretty and delicate species, *V. rupestris*, a charming trailer, fitted to hang over rock ledges, not nearly so rampant of growth as the species first named.

A patch of Veronica incana is doing very well on this bank, and bears out the theory that plants with grey foliage are especially well adapted to resist hot suns and drought. The flowers, however, are more purple than blue.

Veronica spicata is a late-blooming species which furnished us with a good patch of colour in July.

Some of our native wild Veronicas have quite pretty flowers. One of these that is quite abundant here is Veronica officinalis. I call it a native, but botanists are in doubt whether to class it as adventitious or indigenous. I believe it is common in Europe. I have just obtained from a plant dealer a species of Veronica that he calls *V. vulgaris*. It looks like one of our native Veronicas, but I do not recognise the name, which is probably a misnomer.

*V. gentianoides* and *V. longifolia* subsessilis are also established on this bank, and are no doubt well known to English gardeners.

The Delphiniums and Campanulas on the bank did unusually well last summer, owing, I suppose, to the unprecedented wet and cool weather we had. Indeed, the watering-pot has had a long vacation, and only now—October—has been brought again into use for our potted plants.

We sowed some seeds of annual Larkspurs on the bank in May, and these are now in flower. We also sowed annual mixed Collinsias, but these all turned out to be purple and white. There is a blue flowering wild Collinsia sometimes to be met with in our woods. It is Collinsia verna, but I have not yet had an opportunity to naturalise it. Just now Nature has supplied us with an unasked but acceptable drapery for the bank in the shape of light and dark blue-flowered Morning Glories, which are something of a nuisance in this garden. Just in this place, however, they are too pretty to be destroyed.

This is a meagre list of blue flowers, but the effect has been good. It is not necessary to have a large variety of flowers to produce a good mass of colour; indeed, it is best to use as few kinds as possible. In this instance plants that would keep up a succession of bloom throughout the flowering season had to be selected.

I am now making an edging to this bank, where the path borders it, of Plumbago Larpentæ. This Plumbago is hardy; is, with us, rather sparing of its deep blue flowers, which is its greatest fault, but it has the merit of changing in autumn to beautiful tints of salmon, red, and orange, so that it is a valuable plant to use as an edging.

On August 15 last I had occasion to pay a short visit to Washington, which is sixty miles from my home. The express train by which I travelled stopped at Weverton, a manufacturing town on the Potomac. The track at this point ran for some miles along the river-side, and there was a stretch of sloping bank alongside which was covered with some herbaceous plant with fresh green foliage, starred with pretty blossoms of azure blue. I was unable to determine what they were, as the train went by too fast for me to get more than an indistinct impression of their shape and size. They seemed, however, to be about



the size of an English shilling. They were not in clusters, but were dotted about the plants, and so freely produced as to make a pretty blending of green and blue. I have in vain ransacked my books on American wild flowers to try to give a name to this blue-eyed stranger. On the way back from the city, a week later, I armed myself with a good spy-glass. But, alas! the train went by at full speed and made no stop at Weverton, so I see nothing for it but to submit to the tantalising puzzle for nearly a year, until next August, when we can go on a botanising excursion to Weverton with trowels and lunch-baskets in quest of the "little blue flower." DANSE DANDRIDGE.

## THE FLOWER GARDEN.

### SOME REMINISCENCES OF THE HOLLYHOCK.

**Y**OU have done well to reproduce Mr. William Paul's essay on the Hollyhock. It was originally published in 1855, and I am sure the veteran author, who is still with us, will be gratified to find his work of half a century ago held in such honour. I think the golden age of the Hollyhock extended from the early fifties until the middle of the seventies, for the disease was at the later time devastating collections, and the veteran William Chater, at Saffron Walden, was bewailing the extinction from this cause of some of the finest varieties he had raised. Everything that it seemed possible for mortal to devise he applied to arresting the destructive disease, but with only partial success. Almost before the expiration of the fifties the culture of the Hollyhock had to be abandoned at the Royal Nursery, Slough, from this cause.

It is worthy of note that in 1848 complaints were being made that the Hollyhock was a neglected flower, and that few cared to busy themselves with its improvement. Two or three years after the work set in earnest, Paul (of Cheshunt), Rivers (of Sawbridgeworth), W. Chater, R. B. Bircham, Roake, and others were all busy improving on the work commenced by Charles Baron a few years previously. Mr. Chater once told me that neither Baron nor himself employed foreign seed; they simply selected from their very best flowers. Mr. Thomas Rivers raised a variety named *Aurantia* from foreign seed, and this Mr. Chater found of value in giving him certain tints of colour; but during the whole course of his career as a raiser he found the Hollyhock very sportive indeed from seed.

These early raisers were bent upon improving the double form. They got single varieties and also semi-doubles among their seedlings, but they were rejected; seed from them would mean reversion. They aimed at petals of thick substance, smooth and even on the edges and not jagged. They laid down the principle that the compact mass of florets forming the centre should be closely and symmetrically arranged, rising in the middle so as to assume a half globular form. Then there were the basal or guard petals, and these were prone to assume a width out of proportion with the centre; it was held that the guard petal should be flat and stiff and extending half an inch or so beyond the central ones. In this way was laid the foundation of the magnificent double Hollyhocks which William Chater and the Rev. Edward Hawke used to show against each other at Bishop Auckland in the early seventies. Will a time of revival of interest in the Hollyhock come in the near future, and collections of spikes of bloom averaging 3 feet in length be once more a striking feature at our late summer flower shows? What a feature they could be made to be at the Shrewsbury Flower Show in August!

Mr. Chater always controverted the opinions expressed by some that the fine double Hollyhocks deteriorated in course of time and became single. If the plants were neglected there would be

deterioration in the blooms, but it was only a transient condition. It would happen that when roots of Hollyhocks were divided the blooms would not be so fine the first year, but the second year, with proper cultivation, they came very perfect in development, and the Hollyhock has always been remarkable for its constancy of character.

R. DEAN.

### ROCKY STEPS IN THE GARDEN.

IN many gardens in hilly districts rock or stone steps are essential to enable one to get from one part to another, and however picturesque the garden it cannot be beautiful unless there are such pretty ways as these. Glaring bricks and the clean-struck joints of the finished bricklayer or mason are out of place and not suitable for the growth of alpine flowers. There are gardens in Surrey, Yorkshire, Derbyshire, and other places where these things have received proper attention, where crack or crevice has been made the home for some little plant that would be able to increase and spread as the days went on. In one garden of which I had charge some years ago there were about a dozen or fourteen different flights of garden steps; some with as many as a score of steps or treads to each flight, some passed through woodland and wild parts, others came into touch with rock, water, or bog garden, and, again, others were in closer touch with terrace or lawn. Needless to say, no one treatment suited all, and while oaken branches did well for the woodland portion, sandstone or other rocky substance did the same in those instances bordering on the rock garden or like places. While

*Vincas*, London Pride, and the like, with wild Violet or Primrose, were happy in woodland places, in the stony or rocky steps were such things as *Erinus*, the small *Linarias*, *Erysimum* or *Wallflowers*, *Armeria*, *Aubrietias*, *Sedums*, *Saxifragas*, and the like. What should be kept in view when gardening in such restricted areas is the established growth of the plant employed, so that nothing unduly vigorous is used. *Linaria alpina* and *L. hepaticifolia* and *Erinus* are most useful in a general way. On the other hand, the more carpeting subjects, as *Aubrietia*, should be cautiously employed, and then not on the tread of the step, but to drape the side wall. Corners may be occupied by *Corydalis lutea*, and the blue and white of *Campanula pumila* will be found among the most serviceable of plants. In all cases the original planting should be a thin one, as though seedlings had cropped up among the stones. In this way a more natural furnishing will result.

E. H. JENKINS.

### HARDY ORCHIDS.

IT is not for a moment my intention to compare the modest Orchid which grows in the fields and woods or by the margin of our marshes with the incomparable species indigenous to the New

World, yet many of the former are most interesting from their peculiar forms, their bizarre colours, and sweet perfume. The most striking peculiarity in our indigenous Orchids is their "mimicry," which few of our hot-house Orchids can equal. *Aceras anthropophora* simulates a hanging man, *Cypripedium Calceolus* is Venus' Slipper. The *Ophrys* are especially peculiar in their forms: *O. apifera* resembles a bee; *O. arachnites*, a hornet; *O. aranifera*, a spider; *O. bombilifera*, a silkworm; *O. muscifera*, a fly; *O. scolopax*, a woodcock; and *O. tenthredinifera*, a saw handle; in short, the resemblance of these flowers to insects is really most striking, the shapes are manifest, and the colours often well adapted to the shapes. The *Orchises* are not less peculiar, *O. galeata* resembles a helmet, and *O. papilionacea* a miniature butterfly. This brief enumeration can give but a very feeble idea of the oddities of these little flowers, many of which belong to our flora, and great bunches of which we often gather in the meadows, on the hill and woodsides, and on the brinks of the marshes. The area of their dispersion is very varied, and while some species will only grow in very dry places, others, on the contrary, require a moist and marshy soil. This is an important consideration of which we shall speak again when treating of their cultivation.

The number of Orchids which grow in the open air is extensive, but only a small number among them are worthy of a place in the garden; we will briefly mention them: *Aceras anthropophora* with its spike of little green flowers, representing a hanging man, is always a curiosity; *Anacamptis pyramidalis* loves dry situations, where in May and



STONE STEPS IN FLOWER GARDEN.

June it shows its spike of bright purple flowers; *Bletia hyacinthina*, or Japanese Hyacinth, has beautiful flesh-coloured pink flowers, it must be cultivated in pots; *Epipactis alba*, which resembles the May Lily, prefers a partly shaded and moist situation; *Cypripedium Calceolus* and others succeed under trees and in peaty soil; *Limodorum arbotivum* is a curious plant with upright bare stems, violet-coloured like the flowers; it is an inhabitant of ancient upland forests. The *Ophrys* with their fantastic forms ought to be included. *O. apifera*, *O. aranifera*, *O. arachnites*, and *O. myodes* are to be found in meadow lands at a slight elevation above the sea level or on the borders of woods; they are all interesting and worthy of cultivation. The same may be said of the *Orchis*. Who has not gathered in April and May the flowers of *O. mascula*, with its spikes of purple or white, and its leaves as prettily spotted with black as those of some of our exotic *Cypripediums*? This *Orchid* is met with everywhere in uncultivated lands. It is the same with *O. Morio*, which blossoms in May and June. On the other hand, *O. maculata*, whose leaves are similarly spotted, and its white flowers speckled with purple, loves the shelter of trees and humid meadows especially. *O. odoratissima* is an inhabitant of the meadow, where it betrays its presence in June and July as much by the colour of its purple flowers as by their sweet scent. *Orchis papilionacea*, of which there are many varieties with white or purple flowers, is a beautiful species, which, as well as *O. italica*, is worth cultivating in pots. *Serapias Lingua* is a beautiful Italian species with purple flowers; it likes sun and a light soil.

With hardy *Orchids*, especially those which are indigenous to the country, one may realise the dream of having a natural and apparently uncultivated garden by planting them in the turf or under the trees, for they must have the same conditions in our gardens as they have growing wild; the whole secret of success lies in this. The places where they may be planted are many. Every garden of any extent has its "wild" corner. In a small lawn some *Orchis* or *Ophrys* may be placed here and there; approaches to the undergrowth in woods are the favourite spots for many species, and in order to learn how to dispose them in these places a lesson must be taken from a forest glade, or from beneath an old forest tree, so that one may learn how Nature herself has planted them. The banks of a stream of water can in the same way be made bright with *Orchis maculata*. Thus then, if a situation approaching as closely as possible to that of Nature be given to our indigenous *Orchids*, one may hope to keep them; but when once planted they must not be disturbed. With time they will grow larger, form tufts, and increase in beauty.

It is not the same with the species of southern origin, which require shelter during the winter, and which, consequently, are better cultivated in pots. We may add that the indigenous species can be equally well grown in pots. The compost which appears best to suit most of these *Orchids* is an equal mixture of leaf-mould, loam, and sand, with good drainage. The pots are plunged in a half-shaded cold frame, and are covered with a little natural moss. During growth the soil should be kept more or less moist, according to the species, but after flowering watering is discontinued and the plants left exposed. These general conditions ought to be aided by other cultural care, but they are the chief requirements. One of the most important points is planting. Many people, attracted by the beauty of an *Orchid* which they meet with in a wood or field, carefully uproot it and place it in a pot or in a spot similar to that in which it naturally grew; but these plants, having no strong root-system, thus torn up while in full growth, always suffer, and sometimes die. This operation should only be effected during their period of repose, that is, in September, or October at the latest. At this time growth is suspended, new bulbs are formed, and they may be regarded as flowering bulbs, but they must be replanted immediately after being taken up, for they will not stand being kept a long time out of the ground.

JULES RUDOLPH, in *La Revue Horticole*.

## TREES AND SHRUBS.

### XANTHOCERAS SORBIFOLIA.

JUDGING by comments at the Drill Hall meeting on the 5th inst., when a fine group of this beautiful shrub (well showing its adaptability for flowering in pots) was contributed by Messrs. James Veitch and Sons, it is by no means generally known, yet it has been cultivated in our gardens for many years. The one drawback is that as a shrub in the open ground in this country it is liable to be injured by the sharp frosts and cutting winds of spring, though where it escapes it forms a delightful object, and one perfectly distinct from any other shrub in cultivation. The actual winter frosts have no effect whatever on it, and in this respect the *Xanthoceras* resembles many other natives of Eastern Asia, from where it was introduced by L'Abbé David in 1868, though it was, I believe, long known to botanists previous to that time, having been discovered by the German botanist Bunge, who accompanied a Russian mission which travelled overland from Russia to Peking. This *Xanthoceras*, which is the only member of the genus, belongs to the order Sapindaceae, and is therefore a near ally of the Horse Chestnut and of the Chinese *Kolreuteria paniculata*.

The *Xanthoceras* forms a sturdy-growing shrub or small tree, with stout, ascending branches, clothed with pinnate leaves of a bright glossy green tint. These leaves consist of seven to nine leaflets with serrated margins, bearing in general appearance a certain resemblance to those of the *Sorbus*, hence its specific name. The flowers, which make their appearance simultaneously with the leaves, are densely packed in shortish racemes produced from the terminal buds of the preceding year's growth. Individually the flowers are about 1 inch in diameter, and in colour white, with a coppery red centre, caused by the base of the petals being of that hue. The *Xanthoceras* must not be forced hard, but simply given glass protection; the flowers and foliage develop without a check in early spring. In particularly favoured districts the flowers are succeeded by comparatively large capsules, not unlike some of the smooth-fruited forms of *Eschulus*. The black, shining seeds are said to be edible. As illustrating the fact that this *Xanthoceras* is by no means a novelty, it may be mentioned that it formed the subject of one of the first coloured plates in *THE GARDEN*, having been illustrated nearly thirty years ago.

H. P.

## MOUNTAIN PLANTS OF NEW ZEALAND.

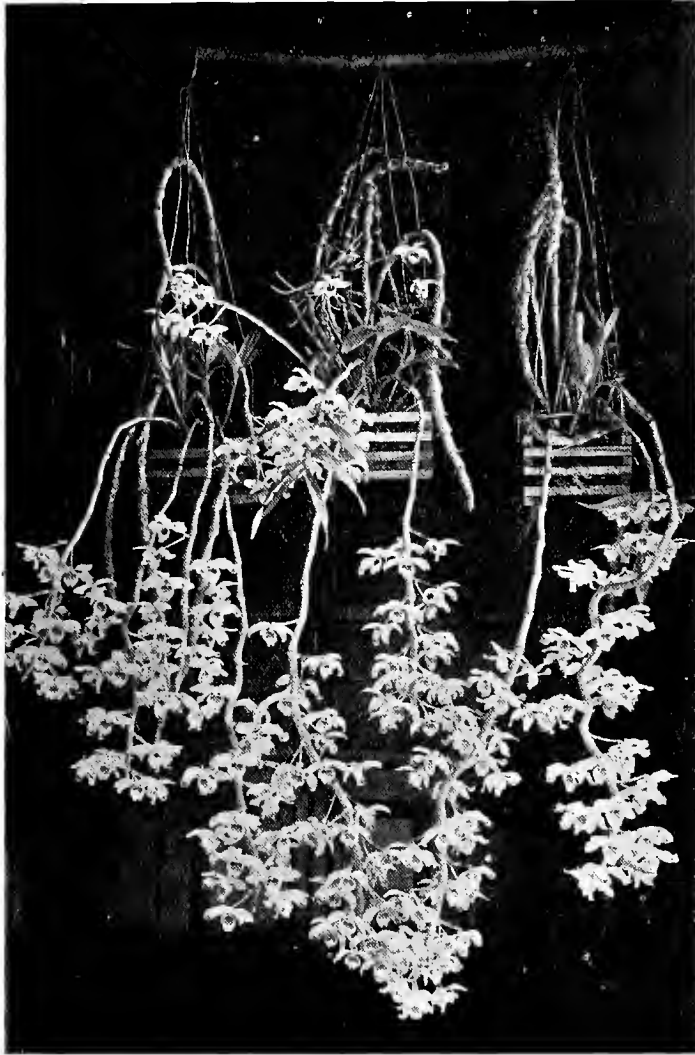
(Continued from page 270.)

WHEN near the summit we found on the side of a steep spur several large patches of the Bog Pine (*Dacrydium Bidwillii*) intermingled with a stunted growth of *Phyllocladus alpinus*. The former is always dwarf, but though the latter usually attains the stature of a small tree, here it was not more than a couple of feet in height. Further up in the same gully we found *Celmisia prosepens*, of which lower down we had seen several small plants growing in large patches in great profusion and flowering freely. It is a lovely form, for though its leaves are not showy, the flower-stems, unlike most of the *Celmisias*, are graceful, and the hillside on which they grew formed a delightful picture. Still further on, however, we saw the best sight we met with. It was an alpine meadow of two or three acres in extent, having a very gentle slope towards the stream, which was covered with *Celmisia viscosa*, growing in beds varying from a foot or two across to several yards. Most of them were covered with multitudes of flower buds, whilst a few were white

with the expanded blossoms. Though individually the flowers hardly equal those of *C. prosepens*, the effect produced by them in mass was very charming. On many of the plants the petals of the unopened buds were suffused on the outside with a delicate shade of pink, a colour I have never before observed in any of the genus. The rosettes formed by the short, thick, viscid leaves of a dark green were a better setting for the flowers than was the foliage of *C. prosepens* and the rather longer rayed and more graceful flowers, though really it was difficult to say which was the better plant.

In many of the moister places the pretty little *Viola Cunninghamii* displayed in abundance its white blossoms, whilst many boggy places were whitened by the flowers of *Euphrasia repens*, and among the rocks near the streams *Ourisia cespitosa* was in bloom. Several species of *Acaena* and *Aciphylla* were found. The former, which I see are grown at home in rock gardens, were fortunately only in flower, as when in seed they cling to the garments of those walking amongst them. The popular name of the genus is Bid-a-bid. Of the *Aciphyllas* the most interesting was perhaps *A. Traillii*, a small species, which suggests a young Palm by its habit. Near the crest of the range *Gentiana pleurogynoides* was abundant with its flower-stems rising about 6 inches in height, but not yet in flower. One of the most curious of the *Celmisias*, *C. sessiliflora*, and its variety minor, now elevated to specific rank as *C. argentea*, were found in abundance, but not in flower. They grow in large cushions formed of small rosettes of silvery grey narrow leaves, resembling somewhat those curious New Zealand composites the *Raoulia*s.

The most remarkable of these plants, the Vegetable Sheep (*R. eximia*) is to be found in the Central Otago District on Mount Ida, but it is a very local plant. It attains an enormous size, and is not infrequently nearer the dimensions of a bullock than a sheep. We found three species, *R. Hectori*, *R. glabra*, and *R. grandiflora*. The last-named was in flower, and some plants were covered with sluggish black beetles, but whether they were eating the plants or only extracting the nectar from the flowers I could not linger to determine, as a mist was beginning to gather about us. I saw a large weta, a brown cricket-like insect, carrying off one of the beetles in its mandibles. Life, however, except plant life, was scarce; even the usually ubiquitous rabbit was not numerous. We saw several of the pretty banded dotteril and numbers of the large black-backed seagull, which nests on the mountain, though what it feeds either itself or its young upon is puzzling. A pair of the handsome paradise ducks and a few English skylarks, two nests of which we found, complete the list of the fauna. The mist gathered quickly, and we proceeded to retrace our steps. We had left our lunch basket and some plants lower down, and though we had marked the place by its proximity to a patch of snow, we had considerable difficulty in locating it, but eventually, after wandering about for a time, we found it, and also another deposit of plants lower down. About four o'clock in the afternoon we called a halt and ate a few biscuits and an Apple remaining over from lunch, but as I had filled my vasculum early in the day, and had been putting plants in the basket, I threw away all the food that remained in case any of my plants should fall out by the way, a step which, like the leaving of our waistcoats, we deeply regretted afterwards. We then expected to reach Gladbrook Station on the Strath Taieri Plain at the foot of the mountain in



DENDROBIUM WARDIANUM IN THE GARDEN OF MR. W. A. MILNER, TOTLEY HALL, SHEFFIELD.

about a couple of hours' time, as we supposed we were in a gully leading right down to it. We little knew that we had struck a gully which, though starting in the right direction, gradually trended away to the south. The mist had grown very dense, and after clambering down the gully, which grew very rough and rocky till about seven o'clock, when we realised that we had lost our way. We scrambled out on to a sloping tableland, which we traversed downwards till, to our joy, we struck a fence. We supposed we could not go wrong in following this down hill, but, as we afterwards learned, if we had followed it up hill it would have joined another fence, which would have led us to the homestead.

The course we took led us still farther away from our destination. After a long tramp the fence ended in a deep gully with a considerable stream in the bottom, which we followed downwards till about nine o'clock, when it was too dark to make travelling wise in such rough country. We resigned ourselves to our fate and a "lodging on the cold ground." Our feet and legs to well above the knees were soaked through by the moisture which hung on every blade of the long snow-grass tussocks, but we made ourselves as comfortable as circumstances would permit under the shelter of an overhanging rock.

One of our party had a few Figs in his pocket, whilst another had an Apple, so we supped on one Fig and the third of an Apple each. Slowly, very slowly, the night wore away, and at dawn we breakfasted on a couple of Figs apiece and set out, as we hoped, on our homeward way.

A. BATHGATT.  
(To be continued.)

## ORCHIDS.

### DENDROBIUM WARDIANUM.

FROM Totley Hall, Sheffield, Mr. W. A. Milner writes: "You may perhaps be interested in seeing a photograph I have taken of three of my plants of *Dendrobium wardianum*. The three longest growths measure 47 inches, 43 inches, and 41½ inches respectively, and at the present time there are 221 flowers on the three plants." We reproduce with pleasure the photograph sent by Mr. Milner, as it shows this beautiful *Dendrobium* at its best. There are few more charming Orchids than this even among the numerous hybrids which have been raised during recent years. Mr. Milner has evidently correctly diagnosed the requirements of this *Dendrobium*, as the illustration well shows, and perhaps he will kindly give some particulars of the treatment of his plants.

### WORK FOR THE WEEK.

#### ONCIDIUM MACRANTHUM, O. MONACHIUM, AND O. SERRATUM.

THE new growth of these charming Orchids is very forward on those not producing flower this year, enabling potting to be done. That the thick fleshy roots may easily enter the pots the material used should be of a light nature, and pot so that when finished the compost is somewhat loose. If potting is done firmly most of the roots will be generally found outside the pots. Equal parts of peat, from which the fine particles have been removed, and clean chopped sphagnum with a little coarse sand will provide a good rooting medium, filling the pots quite one-third with rhizomes for drainage.

Slightly damping the surface to help the moss to grow will be enough for those newly potted; frequent dampings between the pots and overhead on favourable days will prove very beneficial. The *Odontoglossum* house is a suitable place for them. Plants that are carrying flower-spikes will not require attention as regards potting till the flowering season is over and the new growths are 6 inches high, then they should be treated likewise. I always prefer to pot the plants the year they flower. Owing to the long time taken by these species to develop their flowers the plants should

be in robust health before being allowed to bloom; we adopt the system of cutting away the back parts and potting the plant back after flowering, so that it may be grown on without a check till strong enough to carry another spike.

Those now about to flower will require a fair amount of water and plenty of overhead spraying, and I even advise the removal of the spikes at this season if the plant shows signs of distress.

#### ONCIDIUM ZEBRINUM.

This may also be grown under the same conditions, but on account of the scandent nature of its growth it is not possible to bring the base of the leading pseudo-bulbs to the level of the compost, and it should be afforded even more overhead syringing than advised for the preceding ones.

#### ONCIDIUM VARICOSUM ROGERSII.

This is one of the most lovely Orchids we have, and can generally be obtained very cheaply now. It should be grown by every lover of flowers. A mixture of two-fifths peat, the same of sphagnum moss, and one-fifth leaf soil well mixed together suits its requirements. Pots are suitable receptacles; give a good drainage of chopped rhizomes. The plants are best potted just when new roots are visible. This should be done rather firmly, top-dressing with sphagnum. I strongly recommend the intermediate house or the coolest end of the *Cattleya* house for their culture. Until the roots have well permeated the new compost water only when the latter is really dry, but when the new growth is developing its pseudo-bulbs they will benefit by copious supplies; overhead sprayings are helpful during bright weather. Plants that shrivelled badly during the flowering season should be given a rest by removing the next flower-spikes; in fact, no plant should be allowed to flower if there are any signs of deterioration.

Gatton Park Gardens, Reigate. W. P. BOUND.

### NOTES ON SPRING FROSTS.

As spring is with us again, with its inevitable frosty nights, one or two hints may not be out of place. With May frosts the damage is not caused so much by the actual freezing of the plants and blossoms as by the after thawing. Those who are out sufficiently early in the morning will have observed that leaves which appear to be unharmed while the frost is on them present a woeful appearance when the frost is off. This is especially the case if the sun shines upon them while they are still in a frozen state, so that the thawing is rapid, as this causes the bursting of the plant-cells and the consequent destruction of the tissues. Hence the advisability of putting plants subject to injury by spring frosts in such positions that the sun does not reach them till nine or ten o'clock in the morning, by which time the frost will have gradually dispersed. But this cannot always be managed. Bush fruits, especially Black Currants and Gooseberries, have suffered especially from late frosts the last two years, and may do again this year, late though the season is; but the damage to them may be much lessened—and, in fact, prevented altogether with any normal frost—if the bushes are watered over the tops with a rose before they begin to thaw. The temperature of the water is pretty certain to be well above freezing point, and the effect of watering the leaves and blossoms of the trees will be to wash off the hoar frost and very slowly thaw the tissues of the plants, thus minimising the effect of the frost upon them. It is a very simple remedy, and, by means of a two-gallon can with a good rose, a considerable number of bushes may be thoroughly wetted in five minutes. It is worth while adopting the same plan with half-hardy plants and shrubs, and even with some hardy plants, such as *Dicentra* (syn. *Diclytra*) *spectabilis*, which sometimes have their beauty spoilt for the season by one untimely frost. Early Potatoes, too, are worth the trouble, but there is another way of preserving them apart from covering them up, and that is by moulding up earth round the stems as soon as they are up. If the main stems are kept from frost, even though the leaves may be cut off, they will break out again

and sustain very little injury, but if these stems are cut the plants have to make new shoots below ground, and time is lost and the plants weakened, so that a good crop of Potatoes is never secured. It may be necessary to mould them up a second time if frost threatens, but it will be labour well spent if the frost comes. For the preservation of Potatoes from frost this is safer than the watering, as the Potato is such a tender plant that even the watering will not enable it to stand more than 3° or 4°. As damp situations are more liable to spring frosts than dry ones, so the liability to frost may be slightly lessened if the surface of the ground is kept hoed, when it is both drier and warmer on the surface than it would be if in a close and sodden condition.—ALGER PETTS.

## THE GERANIUM AS A STANDARD.

**T**HE term "Geranium" is here used in the popular sense to describe one of the most universally grown

of all flowers in this country, but botanists will correct me and say that I ought to speak of zonal Pelargoniums, as the flower we usually call a Geranium does not belong to the Geranium genus, all the members of which are hardy plants, but to the genus Pelargonium, being varieties of *P. zonale* and *P. inquinans*. This popular flower can be grown in practically any form—as compact bushy plants for beds or pots, as greenhouse climbers, and even outdoor wall shrubs if taken in in winter, as creeping or hanging plants, for the rockery, as large bushes, or as small standard trees. It is of the latter I wish to speak.

Only those who have seen them know what handsome standards zonal Pelargoniums will make, with clear stems 3 feet long and as large round as a man's wrist, with well-shaped, compact heads 3 feet in diameter. The long stem has a somewhat restrictive influence upon the growth of leaf and branch, with the result that standards are more than ordinarily floriferous, sometimes presenting the appearance of great scarlet globes.

Of course, varieties of zonal Pelargoniums, like varieties of other flowers, differ very much in habit, some having an upright, vigorous tendency, and others a weak, straggling one. Plants to be used for this purpose need to be carefully selected, not only as regards the sort, but as regards the particular plants of that sort, as the most vigorous plants are necessary, choice being made by preference of those which have an upright central stem or branch of greater strength and vigour than the other branches. The most vigorous growth must be encouraged for a year or two, though at the expense of blossom, which is as well kept picked off as soon as the buds appear, plenty of pot room being allowed, and liquid manure given. Some grow them in the open ground during the summer season so as to get stronger growth, giving them a deep, rich, moist soil in a sunny position. In any

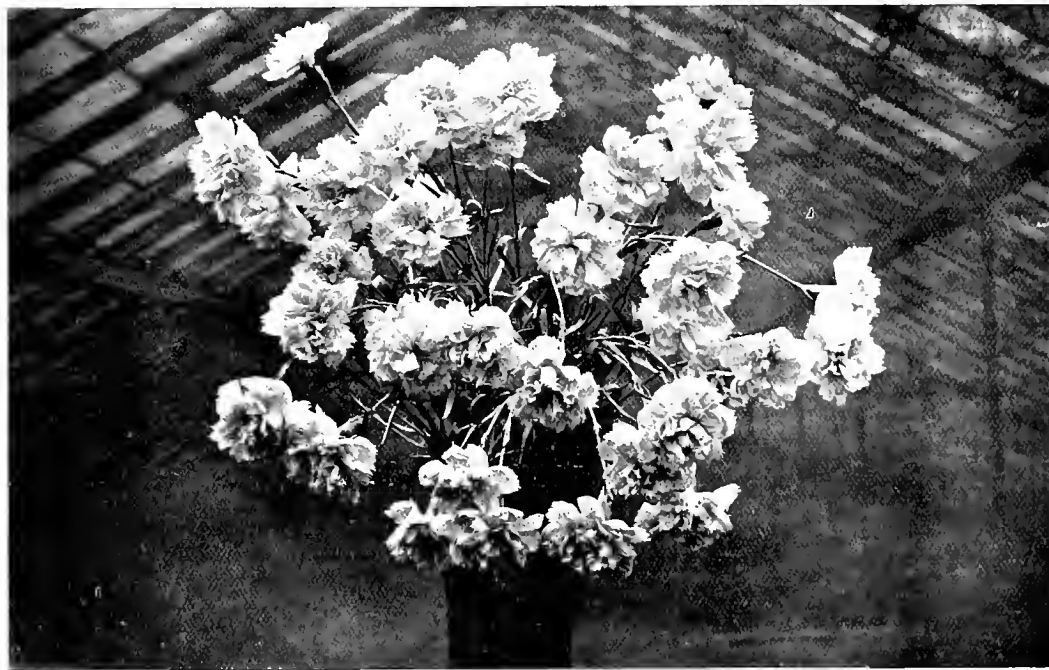
case the central stem needs to be kept tied to a strong stick, while side branches up the stem should be allowed to grow to a pair of leaves and then pinched, and so with the secondary shoots, as these will help to thicken the stem, though the stems rarely become sufficiently strong to support the weight of the heavy heads outdoors, as they feel the full force of the wind and rain with their thick foliage.

The formation of the heads needs considerable care, as we want strong, self-supporting branches. When the central stem has nearly reached the height required attention has to be given to the formation of those branches in the desired positions by judicious pruning, shoots being cut to a bud pointing in the desired direction. Though the bud may not be visible, we know there is one in the axil of a leaf not occupied by a blossom stem. Some recommend the training of the young branches to a circular hoop until they become self-supporting, and if the standards are to spend the summer in the open it might be as well to retain these hoops at least for a year or two, arranging them so that they are well concealed. A storm

larger than is necessary to comfortably hold the roots, and, in the case of taking up from the open ground, no bigger than will just contain them. When moved from one pot or tub to another, the ball of earth containing the roots should not be broken if it can be helped, but it should be scratched all round with a small hand fork, so that it may be sufficiently reduced in size to admit of a fair amount of fresh soil when repotting without giving too much root run. The ideal to aim at is sufficient vigour of growth to produce fine heads of bloom without rampancy of growth of leaf and stem.

It is a truism to say that the sorts of Geraniums are very numerous, and there is an ever-flowing stream of new ones, the favourites of to-day being often superseded by others which do not always seem much superior. Therefore it is not of much use recommending particular sorts, but each should choose the most likely plants from his own collection for the purpose of forming standards, always trying to rear more than one wants, as some of the plants chosen will probably not make good specimens. Double Geraniums are not, as a rule, good

for bedding, but some of them make excellent standards, and consequently it would make a greater variety in the garden if any Geraniums to be grown as standards were double rather than single. If single varieties are grown there is something to be said in favour of raising some plants from seed, and choosing the best among them for this purpose, both as to growth and flower, seedlings being always of more robust growth than cuttings. Their tendency to produce excessive foliage will be rectified as the plants attain a good size. Growing the zonal Pelargonium in this form is very pleasing, and the plants are effective when in full flower.



BLOOMS OF CARNATION FAIR MAID IN MR. DUTTON'S NURSERY.

sometimes causes an important branch to split from the stem, and so an ugly gap is made which takes a long time to fill up.

If the plants are grown in the open ground in the summer they should be carefully taken up in the autumn, potted, and put in a warm temperature until they are well rooted in their new medium, so that the plants do not sustain too great a check by the move. In winter time they should have a dry, airy greenhouse, with a temperature of 50°, too much moisture being avoided, both in the air and in the soil, as we do not want to encourage a succulent growth. They may be treated in this way year after year, though when the heads get well formed they make very fine plants for tubs or large pots in the open, and will last for ten or a dozen years, needing very little attention indeed beyond an annual repotting. When fully grown they should not be given too much root room, nor too much moisture, as the extra nourishment obtained beyond a certain amount is used in the formation of leaf and stem rather than blossom. A rich, loamy soil with plenty of fibre in it is the best for them, though they will grow in almost anything.

Whether kept in pots throughout the year, or planted out in the summer and potted up in the autumn, the pots or tubs should not be much

It is seldom, however, that they are seen in this form, so that these notes may be of more than passing interest. A.

## NEW AND RARE PLANTS.

### MARICA NORTHIANA.

**O**F three species of Marica which are grown in a few gardens where uncommon and attractive plants are appreciated this is one. The best of the trio is *M. cœrulea*, of which an excellent coloured plate was published in *THE GARDEN*, Vol. XXXIII., page 56. It grows and flowers freely in a sunny greenhouse at Kew, where it is planted in a border of gravelly soil. The scapes are about 5 feet high, and they continue to produce flowers for a month or more in mid-summer. The colour of the flowers is bright lilac-blue, with bars of brown, yellow, and white on the inner segments. *M. northiana* differs from this in having shorter and less elegant leaves and scapes, and in the colour of

the flowers, the outer segments being pure white. Mr. Baker says it is "perhaps not more than a white-flowered variety of *M. cœrulea*." It was introduced from Brazil in 1789 by Mrs. North, the wife of the then Lord Bishop of Winchester, and was first figured in "Andrews' Botanical Repository," t. 255, under the name of *Moræa northiana*, with the following particulars: "It is a native of the Brazils, flowers about July or August, propagates itself by suckers, which it makes from the root, should be planted in light rich earth, and should be treated as a tender hot-house plant. The leaves grow frequently to a length of 2 feet or more, forming the appearance of a large fan, the flower-stem proceeding from near the centre. The flowers surpass in delicacy and beauty of pencilling any of this very handsome tribe, and are as transitory as beautiful, their duration being but of six hours at most." Nothing need be added to this excellent description and direction, written a century ago, except that the plant will thrive in a warm greenhouse and that it likes plenty of water. The third species, *M. gracilis*, is a smaller plant of elegant habit, and is useful for shady, moist borders in greenhouses. W. W.

THIS beautiful plant, with its long, drooping leaves and blue and white flowers, produced at the extremity of long, strap-like inflorescences nearly 3 feet long, and an inch or more in width, is one of the most strikingly decorative objects one can have for the warm conservatory. It is, perhaps, seen to the greatest advantage grown in a basket, and for this mode of culture it is more particularly adapted. It may be grown into fine specimens in a short time, and is very effective if planted together with *Anthurium schertzerianum*, *Neprolepis*, *Anthericum variegatum*, or *Asparagus*. With the former plant it is charming. The tops of the baskets are aglow with the scarlet spathes of the *Anthuriums* nestling amidst their upright, leathery, dark green leaves, while the lower part is clothed with the depending leaves and long spikes of the *Marica* crowned with their showy blue and white blossoms. The individual flowers of the latter do not last more than two or three days, but, as is the case with many of the *Iridaceæ*, to which the *Marica* belongs, the flowers are produced in succession for a considerable period.

*Marica northiana* is a Brazilian species, and is one of the most beautiful of the genus. The outer segments of the perianth are milky white, elegantly mottled with reddish brown at the base; the inner segments are curved and barred, blue and white, the blue predominating. Young plants are formed on the apex of the flower-stems, and make in time considerable sized tufts, having a very quaint and ornamental appearance, and never fail to attract attention, while a well-flowered plant always commands admiration. A good ordinary soil suits the *Marica* admirably, and anyone looking for a strikingly beautiful, useful, and uncommon plant cannot fail to be pleased with it.

JOSEPH GODSEFF.

## TREE CARNATIONS ALL THE YEAR ROUND.

**M**ANY gardeners only grow Tree Carnations to provide flowers during the winter months, and to the majority perhaps they are then most valuable. During summer and early autumn border varieties out of doors provide plenty of material for cutting, and this is doubtless the reason that

duction of new varieties within the last few years, most of them from America, Tree Carnations are much more worthy of being had in flower all the year round than formerly. They have a symmetry, colour, delicacy, and fragrance, too, that sometimes are lacking in border varieties. In the market Tree Carnations blooms fetch better prices than border varieties, and for the reasons just stated. Those who grow Tree Carnations during the winter months never see them at their best. In summer the flower-stems are twice the length, the foliage is more robust, and the blooms themselves are larger, of better colouring and more substance, and so last longer in beauty.

All the accompanying illustrations are from photographs taken in the nursery of Mr. A. F.



MARICA NORTHIANA.

(Natural size.)

From a drawing by H. G. Moon,

in Messrs. Sanders' Nursery,

St. Albans.

Tree Carnations are so rarely seen after early spring. To have Tree Carnations at their best the flowers must be protected from sun and rain, and this necessitates their being grown under glass, which, of course, is an expense that few perhaps are inclined to undertake when plenty of beautiful Carnations can be had from the open border. With the intro-

Dutton, Bexley Heath, Kent, who grows nothing but Tree Carnations, and, as usually is the case when a grower devotes himself to one plant only, grows them exceedingly well. Mr. Dutton sends flowers to market all the year round, the daily average during summer being, of course, much higher than in winter, but even at the latter season many dozens of blooms are sent away every week.

Probably another reason why Mr. Dutton is so successful with these Carnations is because he grows only a few varieties which are of proved worth, instead of a long list of good, bad, and indifferent, as some are apt to do. Thirteen varieties are grown in the Bexley Heath nurseries, and Mr. Dutton says of them that, "I have proved all to be the very freest, and to have the best qualities found in Tree Carnations. Not one has a bursting calyx, and all are fragrant." The thirteen sorts are as follow: Mrs. Thomas W. Lawson, cerise pink, the celebrated American Carnation that has become so popular in England, easily grown and very free flowering; Enchantress, flesh pink, a strong grower, early and continuous bloomer; Fair Maid, light rose-pink, a dainty variety; Floriana, coral pink, a splendid winter variety; Melba, light pink, best for early spring and summer; Harry Fenn, crimson, very free; G. H. Crane, brilliant scarlet, excellent for Christmas and Easter; Queen Louise, white, the best white for market; Morning Glory, deep flesh pink; Alpine Glow, deep salmon pink; Royalty, a lovely pink; Governor Roosevelt, crimson; and Norway, white. It will be noticed that these varieties

are all either white, crimson, scarlet, or shades of pink: these are the favourite colours in Carnations. The public appears not to appreciate yellow Carnations, so Mr. Dutton grows none of them.

A knowledge of the methods of culture practised by Mr. Dutton may be useful to many. Cuttings are best propagated from January to April in any cool greenhouse. It is a great advantage to have bottom-heat 10° above the house temperature, say 40° or 50° to 50° or 60°. Insert the cuttings in 4½-inch or 6-inch pots, using fresh loam with one-third sand. Shade till rooted, and pot into 3-inch pots before the roots become entangled. Shade again the first week, but after then give plenty of light and ventilation. Stop them once while in the 3-inch pots, and repot into 6-inch pots before they become pot-bound. Plants can be put outside from May, or, better still, under a cold frame, which keeps the watering under the grower's control. Stop all shoots that may run to bloom before July 10, then no further stopping is required. Take the plants into their flowering quarters about the end of August. A house where a temperature of 40° to 50° can be maintained through the winter months makes an ideal house for Tree Carnations, and they can be grown with most other greenhouse plants that do not require too high a temperature or too moist an atmosphere. Stake and tie the plants as soon as required, not allowing the shoots to become too long, so as to secure strong, erect stems. Disbudding is very simple. Remove all buds except the

crown and any side shoots till the length of stem required is procured. It is a mistake to suppose that budding is extravagant, as experience has proved that it is the individual flower and not the stem that takes vitality from the plants.

To give some idea of the quantity of plants that Mr. Dutton grows annually, we may mention that he has already propagated 46,000 this season. During the winter he has been gathering flowers from 36,000 plants, and many of these will continue to bloom until those recently propagated come into flower.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### STOVE PLANTS.

**S**YRINGE these plants well twice a day and the stages and paths oftener during bright sunny weather in order to maintain a moist atmosphere. Do this to check red spider—a troublesome pest—and with which frequently the plants are infested. Fumigate occasionally in the evening with XL All Vaporiser to destroy green fly and thrips. Dipladenias, Allamandas, Clerodendrons, Stephanotis, and other stove climbers that are growing freely will require careful watering. Much benefit will accrue if a light top-dressing of Clay's Fertilizer be given, as well as an occasional dose of diluted liquid sheep and cow manure. Mealy bug may, with the exercise of much care, be completely destroyed by syringing them with paraffin during the evening,

using a wineglassful to four gallons of water. The operator should keep the oil and water well mixed together by returning one syringeful to the can and the next one on the plants. Palms which have become pale green through being in small pots may be made a darker green by occasionally mixing soot with the water that is given to their roots. This may be applied with good effect to the roots of Gloxinias, Achimenes, and Caladiums.

#### GREENHOUSE RHODODENDRONS.

There are few plants better adapted than these for decorative work at this season of the year. The plants of many sorts are now beginning to lose their beauty as their flowers commence to fall; it will be necessary to tie down the shoots, so that when the new growth is completed the plants will assume a more or less regular form. Syringe them twice daily as well, and moisten the stages, &c.; this is a very important detail in helping the plants to make a good growth and to flower well afterwards. Repotting will be necessary only in a few instances, as the plants do equally well, or rather better, in small than large pots. Two parts peat to one of fibrous loam, with a very little sand added,

forms a good compost, and in potting make the soil firm. Apply water very sparingly to the roots of newly-potted plants, but to others that have not been disturbed apply liquid sheep and cow manure in a well-diluted form; or apply Clay's or other chemical fertiliser.

#### VINCAS.

These plants, of which *V. alba* and *V. rosea* are most effective when in flower, will now require cutting back, and should be given a warm, moist atmosphere to encourage them to grow. Young plants are best, and they are easily obtained by inserting a few cuttings of the soft young shoots. Put three or four shoots in a 3-inch pot; after insertion plunge the pots in the propagating-bed and shade them from strong sun. The old plants, after being rested for a time, should be cut hard back, and directly they start into fresh growth repot them into pots smaller than they previously occupied. To do this reduce the ball of soil and roots by one half.

#### STROBILANTHES DYERIANUS.

Not often is this plant seen in the best possible condition. The reason, perhaps, is because it is often starved instead of being grown into a handsome foliage plant. The effect of its foliage against that of other plants for decorative work is very pleasing, especially when the leaves are well developed and coloured. It is not difficult to propagate, as cuttings of the young shoots will readily strike root in a brisk bottom-heat.

J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

### FLOWER GARDEN.

#### WATER LILIES.

ALTHOUGH the best time to plant or increase the hardy *Nymphaeas* is just as they begin to grow, these operations can be successfully performed at any time during the next three months. Many established clumps of the stronger growing sorts, such as *Nymphaea marliacea chromatella*, require to be annually thinned, as they produce such numbers of large leaves that the flowers are almost if not quite hidden, and masses of leaves are pushed up out of the water fully a foot high. With these strong growers it is advisable, as the summer advances, periodically to remove sufficient of the leaves to allow the remainder to float on the surface of the water clear, or nearly so, of each other. Planting Water Lilies in a natural piece of water is a comparatively simple matter. Firmly plant them in a loosely made basket—for this purpose I keep worn-out kitchen garden baskets and roughly mend the bottoms—using good loam and, if the plant is weakly, a proportion of leaf-soil, and grit may with advantage be added. Finish off with good sized pieces of fibrous loam, and lace over the top of the basket with a few nut branches, and at once gently sink the basket into its allotted place. The depth of water will depend on the strength of the plant. The vigorous *marliacea* hybrids should be planted in from 2 feet 6 inches to 4 feet of water. If planted deeper than this they will, unless it is a very warm situation, be late in flowering. The small-growing *N. odorata*, *N. pygmaea*, and their varieties will flower freely in from 9 inches to 18 inches of water. Where there is a fair deposit at the bottom of the water the roots will soon push through the basket and fend for themselves, but with an artificial bottom it is necessary to place the basket in a mound of soil and annually top-dress. A few turves laid around with the grass side inwards will give good results.

#### THE COMMON ARUM

is much harder than is generally supposed, and will stand at least 20° of frost. They are amenable to the same culture as the *Nymphaeas*. During the winter the leaves disappear and the plants commence to grow in the spring, flowering throughout the summer and autumn. The Cape Pond Weed (*Aponogeton distachyon*) is also hardy. It flowers best when growing in running water. As the flowers are very fragrant it should be planted near the edge. Such things as *Sagittarias*, *Pontederias*, *Ranunculus Lingua*, *Butomus umbellatus*, *Caltha*,



A HOUSE OF CARNATION CUTTINGS.

palustris, &c., may with advantage be added. The pigmy Water Lilies are well adapted for growing in tubs of water stood out in the full sunshine.

**BEDDING PLANTS.**

Geraniums, &c., should now be placed in frames and temporary structures where they may be quickly covered on the approach of frost. If more Heliotrope, Iresine, Alternanthera, &c., are required cuttings will root readily and soon be fit for hardening off if inserted at once and placed in a brisk heat.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

**KITCHEN GARDEN.**

**CELERY.**

TRENCHES should now be made at the first opportunity. Many prefer to grow this vegetable always on the same piece of ground. Where this is carried out the ground may be left a short time to settle. A plot recently cleared of Broccoli or other green crop is very suitable for this purpose. Trenches should be wide enough to hold three or four rows of plants, this method being economical and giving as good results as when grown in single trenches. Trenches made for three rows should be 3 feet wide and about 1 foot in depth when ready for the manure. See that the manure for this crop is of the best well-rotted cow manure that has been carefully turned during the winter and spring. After a good layer has been placed in the trenches enough of the surface soil should be returned to plant in. About 4 feet should be allowed between the trenches. The ridges between the celery may be planted with Lettuce or French Beans, as the crops will be over before the soil is required for earthing up. Celery sown for extra early use may now be hardened off and planted out in May. The main crop will require careful attention if pricked into frames, and must at no time suffer for lack of water.

**GENERAL SOWINGS.**

Salsafy may be sown this month on rich, deeply trenched soil; sow in rows 15 inches apart, and thin out to about 6 inches apart in the rows. Scorzonera should be sown later, as it is so apt to run to seed. A pinch of Chervil may also be put in on the herb border. Mustard and Cress may now be brought forward in the open ground, choosing a sheltered position.

**GENERAL REMARKS.**

As soon as the earliest Carrots, Onions, Parsnips, &c., come through the ground advantage should be taken of a dry day to run the hoe through the soil between the rows; this will destroy small weeds and admit air and sunshine. In the case of Carrots thin the plants as soon as the first true leaf is formed to about 2 inches apart, and in a few weeks the second and final thinning should be given. This operation should be carried out in damp weather. After each thinning give a dressing of soot; on dry and fine days ply the hoe among all growing crops and where the surface of the soil has become hardened. Kitchen garden walks should be carefully hoed with the Dutch hoe; all edgings should now be repaired and fresh gravel put on where required.

THOMAS HAY.

*Hopetoun House Gardens, Queensferry, N.B.*

**THE FRUIT GARDEN.**

**THE EARLIEST PEACHES.**

THE fruit in this house will now be swelling after stoning, and should be given a higher temperature — 65° by night will be suitable, slightly lower on very cold nights, 80° to 85° by day with sun-heat. Syringe the trees morning and afternoon, and otherwise keep the atmosphere of the house moist. Untie any shoots that press the fruits against the wires or shade them from the light, and keep away the leaves. Syringing the trees must be discontinued as soon as the fruits begin to ripen, or it will cause the skin to crack, and also impart a musty flavour to them. See that the trees do not lack water at the roots, give liquid manure to old trees which are heavily cropped or not making satisfactory growth, care being taken not to over-feed young strong growing trees.

**SUCCESSION PEACHES.**

During the stoning period the temperature should not exceed 60° by night, ventilate freely during the day when the weather is favourable. Tie down the shoots as they grow, but avoid overcrowding the trees with young growth. Stop any extra strong growing shoots to balance the flow of sap. See that the trees are kept clear of aphid by syringing with quassia water or light fumigation with XL All. In later houses thin fruits early, removing all those from behind or underneath the shoots first. The final thinning must be done later, when they are the size of marbles; very few more need be left at this season than are required for a full crop. Attend to the disbudding of the trees as they advance in growth; see that the foliage is dry at night in houses where no fire-heat is used until danger from frost is over.

**FIGS.**

The earliest fruits will soon be approaching maturity and less syringing and a drier atmosphere will be necessary to obtain the best flavour. Give a temperature of 68° at night, falling to 65° in the morning, and 75° to 85° by day with sun-heat. Trees grown in pots or in restricted borders make short-jointed growth, which should not be stopped — it is easily ripened and furnishes excellent crops of fruit. Later trees should be thoroughly syringed twice daily to keep down red spider. Apply warm weak liquid manure water frequently, and let the temperature of the house be about 60° at night, 15° higher by day, until the trees have passed the flowering stage. Remove all weakly growths not required for furnishing the trees.

**POT VINES.**

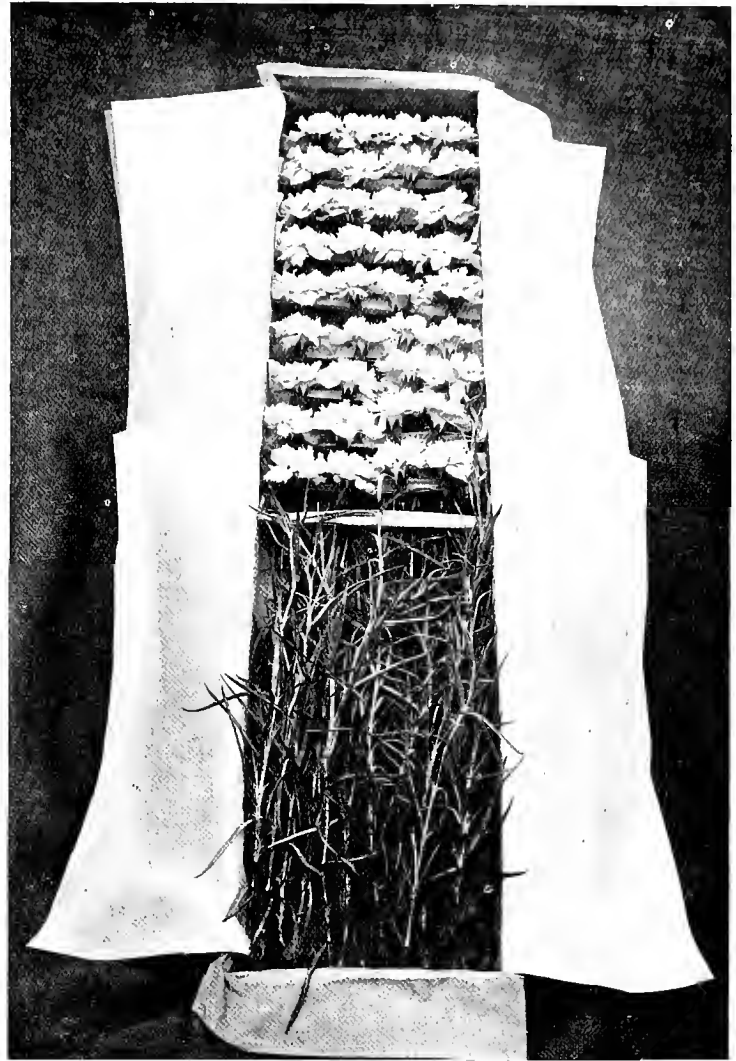
The fruit on the earliest Vines will now be colouring rapidly. More air should be admitted and a drier and cooler atmosphere maintained. Manure water should be given less frequently and be discontinued as the fruit ripens. Freely ventilate the house on mild bright days, and leave the ventilators slightly open at night. Allow the laterals more extension, as this will improve the size and colour of the fruit.

F. JORDAN.

*Impney Gardens, Droitwich.*

**CHRYSANTHEMUMS.**

THE bulk of the plants which are being expressly cultivated with a view to produce large blooms should now be thoroughly established in 5-inch and 6-inch pots, and sufficiently hardened to be taken from the cold frames which have accommodated them since potting to a properly prepared and sheltered place in the open. Plenty of light and air are absolutely essential to their well-being, but at the same time protection must be given in case of frost and cold, cutting winds. A temporary shelter should be erected, preference being given to that facing south or west, with a background of some kind which will ward off cold, biting winds



CARNATIONS PACKED IN BOX FOR MARKET.

from the north and east. Arrange the plants on boards and allow a good space between each so that plenty of light and air can play about them. Each plant should be well supported with a stake sufficiently long to secure them till the final potting. No insect pests should be allowed to infest them, and as prevention is always better than cure, dust the points frequently with tobacco powder during the evening; this should be thoroughly syringed out the following morning with soft, tepid water. During hot, drying days the plants will derive much benefit by being syringed overhead three or four times a day. Should the pots become thoroughly filled with roots rather than be in too great haste in giving them their final potting, give weak stimulants every other watering, just sufficient to keep them in a healthy, growing condition. Never give any water until the plants are quite ready for it, then fill up the pots at least two, and, better still, three times, thus making quite sure that every particle of the soil becomes moistened. Late-struck and the more weakly plants should still receive the shelter of a cold frame, and nurse them along so that they may be ready for shifting into their flowering pots with the rest, but abundance of air should be given whenever possible, thus avoiding any attempt at coddling, the lights being used to ward off heavy rains, but fully blocked up, and the same at night, except when severe frosts are likely to occur.

**SPECIMEN PLANTS.**

These should now receive one more shift before the final one. Stop and procure the necessary

number of breaks as speedily as possible. Carefully train out the young growths so that these do not become crowded, at the same time strictly avoid tying them down like a pancake, as anything more objectionable and unnatural I cannot imagine. Early-blooming varieties, which are grown chiefly for conservatory and greenhouse decoration, such as Mme. Desgrange, its sports, and Source d'Or should be placed in their flowering pots as soon as possible, 7-inch generally being the most useful. These are, as a rule, most serviceable when treated as medium sized bush plants. The stopping should be discontinued by the end of the present month or the first week in May; tie out and regulate the growths as they require it. The variety Mme. Desgrange is very susceptible to attacks of mildew, especially in low, damp-lying districts, consequently frequent applications of sulphur should be made to the underside of the foliage. E. BECKETT.

*Aldenham House Gardens, Elstree.*

## ROSE GARDEN.

### SEASONABLE NOTES.

THE sunless days of early spring are a severe trial to the grower of forced Roses, and our American friends, whenever they visit us, marvel that we are able to produce such fine flowers. But lately we have been having some bright days, and this has tested our plants to the utmost. Where steady growth and abundant ventilation have been afforded the plants are the better prepared to stand the sun-heat at this time of year. Lean-to houses for early forcing have their advantages in the more abundant light and direct rays of the sun. If latticed staging is provided care must be taken that a piece of slate or a handful of moss be placed beneath each pot to prevent too rapid evaporation.

### ROLLER BLINDS

are a necessity to those who grow for exhibition. The skilful use of the blinds has helped many an individual to win prizes. A pot Rose loses many points if it is on the wae. One prefers the beauty of the half-developed flower to one fully expanded. Syringing with cold, soft water is not only an aid to cleanliness, but it tends to check mildew by producing hardened foliage. I prefer to have the work done by 9 a.m. and continued every morning, unless the weather be wet and cold.

### WATERING

must be attended to each morning, especially when there are a number of plants in various sized pots. Here, again, soft water is a great boon. This may be given fresh from the tanks, but tap or pump water needs a slight chilling, unless the tanks are in the same house as the Roses, which, of course, should be the case. Tap each plant, and only give water when the sound is perfectly clear and bell-like. Roses planted out need much less watering. The surface soil is just prodded over occasionally with a fork, and then a real good soaking afforded when the plants seem to need it.

### GREEN FLY

will not be so troublesome where the duly syringing with cold water is practised, but when it is seen the XL Vaporiser should be employed, or, failing that, the XL tobacco sheets.

### MILDEW

has now no terrors for cultivators, for there is the Sulphur Vaporiser available. I can recommend this, having seen the great utility of the invention. A fine mildew destroyer is that advocated by Dr. Cooke, namely, two parts flowers of sulphur to one part of slaked lime. Dust this on foliage on a fine morning and the mildew soon disappears.

The little black maggot has been very troublesome this year. Nothing but hand picking can stop his depredations. Where much side air has to be given I prefer to mulch the plants with some old hot-bed manure. This prevents the too rapid evaporation, and at each watering a gentle stimulant is afforded through the mulch. Where plants seem to need more help a dusting of some approved fertiliser or Peruvian guano before applying the mulch is a capital aid to good quality of blossom.

The application of liquid manure to pot Roses must be regulated by how we prepared the compost. If some bone-meal and wood ashes were incorporated then the plants will not need much stimulant until buds are developing. It is at this latter stage that all Roses, both indoor and outdoor, soon exhaust the fertilisers within their reach.

### STANDARD ROSES IN POTS

need a little artificial aid in the spreading out of their heads. What is known as sixteenths wire is best for this. Dwarf Ramblers as pot plants must become very fashionable. Where the colours differ from the ordinary dwarf Polyanthus they will be most welcome. The beautiful novelty Dorothy Perkins may be grown quite dwarf; so also may Crimson Rambler, Leuchtstern, &c. I confess I prefer to see such Roses in the stately pillar form, but for table or decorative plants the dwarfs will be most useful. Young grafted plants should be potted on as soon as they require the shift, and all blooms picked off.

Climbers on roofs need watching to prevent the growths touching the glass. For small spaces the dwarf Teas are more serviceable on a roof than the rambling kinds, and three or four crops of bloom may be gathered against the one of the strong climbers. Cuttings should now be inserted from strong-flowering wood, and plunged in a bottom-heat of about 70°. The foliage must be preserved and sprinkled three or four times a day until cuttings are rooted. Pot off into 3-inch pots when roots are about half an inch long. PHLOMEL.

## WASTE IN PLANTING.

EVERYTHING which tends to simplify the work of planting is a gain in all ways, and much of the work given to it is needless and wasteful—particularly trenching and draining—two costly labours. I live in a cool country with a wet soil, and never drain for any kind of planting in woods, adapting the plants to the soil, the true way. There are trees, American and European, that will almost stand in water and be not the worse for it. Another costly labour is trenching, and, I think, needless. I have young woods of Pine planted in arable fields, and not of specially good soil, which people say they have never seen surpassed in vigour and beauty for their age, and the ground for them was never either trenched or dug. The poor hill lands that are now recognised as worth planting seldom need draining, as they are often uplands and naturally well drained. One of the pleas for planting such is that the planting arrests denudation and conserves the moisture and fertility of the soil. And even where soil is too wet much can be done to drain it by a good choice of kinds. The Poplar, Willow, and Spruce, if planted thickly enough, will prove very good and cheap drainers. There are cases, owing to a deadly uniformity of surface, where some draining may be needed, but for forest work generally it is needless—beyond what is needed to keep the rides dry. Even in heavy soils I avoid draining.

Light sandy soils, and hill soils generally, seldom or never need draining, except when they lie upon a hard pan, such as is here and there found in peaty districts, and where the water stands, however light the rainfall may be. Where the surface soil in such cases is not very deep, and an outfall can be found—not an easy matter on level tracts—the surface water can be led off by open drains, but when the peat is deep the water will not subside below the drain levels. Some of the best German foresters hold that in many soils the best system is that of trees of different ages, different kinds, and different times of cutting, grouping the trees according to soil and situation, and this way helps one to avoid the heavy costs of draining and trenching. It is a better way than the dead level mixture we so often see, and which has to adapt itself to all conditions. This grouping and massing way also leads to beauty, as by its means we keep and accentuate any varied incidents of the surface. Putting the Willows and spiry-

leaved trees in wet and hollow places; this system of planting is one means of obviating draining to some extent, and by planting the different spots with Austrian Larch, Scotch Fir, and Beech on the drier ground, Spruce, Sitka, and Douglas Fir in the sheltered and moist hollows, Oak, Ash, Sycamore, and Elm on the cool ground, and Poplar, Willow, Alder, and Birch wherever the soil is wet. This is a better plan than the mixing of kinds together on the same spot, no two of which are alike in their wants.

Trenching does not add to the staple of poor soils such as are generally planted with forest trees, useful though it may be in rich garden ground, where a rank quick growth is sought. Even if we can face the great cost of trenching the labour is not always to be had. I have seen a countryside denuded of labourers in order to trench ground for planting, and the result is no better than if a plough had been run through the land, or even if the trees had been planted in the sod. One of the best things about a wood is that it finds its own soil, and if we plant closely and well, and choose the right trees, it very soon begins to do this, as many of the finest natural woods have done it for ages. Woods planted a dozen years will be found to have a good deposit of leaf-soil—this is in cases where the tree suits the ground, and where the young trees are thick enough to discourage the grass to their own benefit. In our open, loose way of planting we may look in vain for any such deposit, as the grass absorbs it all. The effect of the heavy fall of leaf-soil from the lower branches of Pines and other trees is that in hot and dry seasons, when farmers and gardeners are at their wits end to get water, the wood is cool and safe.—*Flora and Sylva* (April).

## THE KITCHEN GARDEN.

### A VALUABLE WINTER TURNIP.

FOR several years I have grown largely for winter and spring use Webb's Prize-taker, a green top variety of much merit. It is very distinct from any variety, thoroughly hardy, and of excellent quality. We always make a late sowing, which gives a supply of really good Turnips well into May, and have just lifted and stored under a north wall a large quantity, the seed of which was sown on September 14 last. Several other sorts sown on the same date are practically worthless, except for supplying greens, and I strongly advise any who are expected to keep up a late supply to try the above. I venture to say they will not regret doing so. It also makes an ideal Turnip for exhibition for November shows, as it is shapely, and the under portion is snow white.

*Elstree.*

E. BECKETT.

### POTATO SETS.

I AM glad that such an excellent authority on Potatoes as "A. D." (on page 244) is going to try, as far as practicable, the value of planting large sets. For some years I have advocated the planting of larger seed, and this year I regret to observe our seedsmen have sent out smaller sets than usual; indeed, some were so small that I did not plant them. I do not like small seed, but would, at the same time, point out the necessity of ample space between the rows. I note "A. D." says 4 feet. Of course, this cannot be generally adopted, but more space could often be given if larger seed is used. Doubtless the reason some of our Potato seed is so small is that, owing to the very wet season, in certain soils the growth was restricted. Very poor crops were obtained from Potatoes that were cut down by frost late in May. With reference to "A. D.'s" remarks about the cutting of the sets previous to planting, I think this is a point overlooked at times, as in dry seasons in light, poor soils I have frequently seen very poor returns from cut sets, and in heavy soils in wet seasons these decay quickly unless the seed was cut some time in advance of the planting and the



cut portion dried by exposure to light and air. I should say that "A. D." will find the new seed he has received from the North will be much superior as regards vigour to seed that has long been grown in the same locality. I find it so at Syon, seed grown here two or three years becomes so weak that only half a crop is obtained, but this may be the fault of the soil, the latter having been in cultivation many years, and the atmosphere is not of the best, so that by planting new seed it is our only chance of getting good results. I think that, as far as Potato culture is concerned, far better results would be secured in open fields if the same care in planting, selection of variety, and rotation of crops could be given as to ordinary garden crops. In our light soil we get the best results by deep cultivation, ample room, and growing the tubers on the flat, disbudding freely.

Syon.

G. WYTHES.

### POTATO TRIALS.

THERE are few garden products the testing of which by growth and cropping creates so much interest as Potatoes. No doubt that interest is largely due to the fact that, whilst we can see the plant tops, which have for us comparatively little interest, that portion of the produce we most desire to see is hidden from view, and must remain so until the whole root and plant is lifted. When that is so, and the tuber produce is a great one, it is doubtful whether it is possible to find in any other description of trial the same degree of pleasurable satisfaction. For that reason, if for no other, it is well if everyone who has a garden—large or small—would have their own trials, even if not exceeding twelve varieties. No waste of any description results from these trials, as the tuber produce can always be eaten; but when several fresh varieties are obtained each year, if but a few pounds of each, and planted in rows side by side, from the appearance of the first tops to the final lifting interest is created, culminating when the tuber product is seen. It is not at all needful that anyone wishing to have a trial of this nature should purchase costly varieties. Those who have not Sir J. Llewelyn, Snowball, Syon House Prolific, Evergood, The Factor, King Edward VII., Lim Gray, General Roberts, Up-to-Date, Royal Kidney, Gold Coin, and The Croiter, may purchase small quantities of these at moderate prices and plant them. Those few which seem to be much the best—and Potatoes vary so much in diverse soils—can be saved for planting the following year with a few others, which may then include Discovery, Northern Star, Diamond, and other new ones, and thus maintain interest that, so long as good varieties are grown, will never flag. Our chief disinterested trial of Potatoes yearly so far is that conducted by the Royal Horticultural Society, hitherto for so many years held at Chiswick, but this year to be on entirely fresh soil in the new garden at Wisley. The year's trial will include some sixty varieties, the majority of which are new or seedling ones, hence a study of that trial each year is well worth the attention of all who are interested in Potatoes. Seedsmen and trade growers have their own trials, but none others so far hitherto have been conducted on the same open and entirely disinterested lines that are found under the auspices of the Royal Horticultural Society. The new Potato Society will this year conduct about a score of trials in diverse parts of the kingdom, but these in each case will be limited to some ten or twelve varieties, all simultaneously grown. The results of these trials when ultimately published will have great interest.

No doubt the new society would extend its knowledge of new varieties if it obtained the sanction of the council of the Royal Horticultural Society

to see the results of the Wisley trials also, as the knowledge thus gained might help to make good selections for the National trials next year.—A. D.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### DESTRUCTION OF WILD FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is consoling to see that a crusade against the destruction of wild flowers in rural districts has been well inaugurated. Probably there is hardly a county in England—or, for the matter of that, in the British Isles—which cannot tell its tale of the ruthless uprooting and even extinction of some rare local plant. In Sussex we believe ourselves to be exceptionally victimised. Just at this season, when woods and hedgerows are beginning to look their loveliest, one may meet in the course of a short country walk half-a-dozen different sets of able-bodied men and

by these wandering pilferers, for they are nothing less.

Mushrooms and Blackberries in the autumn may at the first glance be considered more legitimate prey for such wayfarers, and no one would grudge them for their personal use, as the ingathering of them does not involve the same destruction. But, in truth, these belong to the owners and tenants of the land, and the hedges and fields are often so completely denuded that it is hard even for the farmers and cottagers themselves to get their rightful share of these simple luxuries, while the village children are deprived of their chance of turning an honest penny by getting them for the neighbours who have no time to spare to do it for themselves.

Time was when there were localities in many different parts of England famous for certain wild flowers in large numbers. A Kentish wood, well known years ago to the writer, was the home of countless thousands of Lilies of the Valley, but the marauders, with their sacks and costermongers' carts, have carried them all away. The same has happened with Lent Lilies and Snowdrops, which are locally



CARNATION MRS. LAWSON IN FLOWER AT MR. DUTTON'S.

boys, or rough, stout women of the genus tramp, with sacks full of Primrose roots, and baskets slung over their shoulders piled high with Ivy trails, moss and lichen, &c., which they are carrying for sale to the nearest town. These are common things—for we have no wish to give a clue to the hidden treasures of the county—and Nature is bountiful, but the depredators are mostly the idle loafers from the seaside towns in which Sussex is so rich, who will not do an honest day's work if it is found for them, but prefer to pick up a casual living as best they may. We sometimes forget that village folk take as keen a delight in the beauty of the woodland flowers, and need the refreshment of their sweet, restful influence quite as much as more sophisticated people with aesthetic tastes. Holly for Christmas is another tempting bait, and many a bitter lament is uttered in country places over the wanton destruction done in the getting of it

naturalised in great quantities, and it is high time that these should be looked upon—as, indeed, they are—as the property of their owners. High cultivation and the "demon builder" lessen year by year the number of habitats of our rarer British plants. Let us unite to do our utmost to preserve what a prodigal Nature still spares to us. K. L. D.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—All lovers of field and woodland scenery must rejoice that the question of the heedless and wicked destruction of our native Ferns and wild flowers is coming to the fore.

None too soon. Almost everywhere, but especially in the neighbourhood of towns, the havoc is deplorable. Not a dippled Foxglove nor tufted Primrose nor clinging Violet is left us, and as for wayside Ferns they are the spoil of every tramp.

The just punishment that overtook the depredators of a plantation near Axminster the other day is a step in the right direction. It is well to

have the fact pressed home that theft is theft, and must be considered and treated as such, whether the thing stolen is a live chicken, or a live fish, or a living plant; nay more, the very fronds and blooms themselves have owners.

Wild birds at last *are* protected, and since the Act about them has been enforced more rigorously much good has been done. Can we do nothing to protect those other living creatures that are served so ruthlessly? In most cases the plants, whether stolen or taken from common land, fare badly, from being rooted up without the slightest care, and generally replanted under the very worst conditions for their survival.

One dire result of all this thieving of plants and flowers is, that many of the open spaces, both parks, and woods, and meadow lands, so dearly prized by true flower lovers, are closed to the public by their owners, who cannot be expected to acquiesce in the spoliation of their property; much innocent enjoyment is hereby lost.

The owners of suburban gardens, in a small way, share the same annoyances as the large land-owners. Their growing Ferns are grubbed up and sold about by boys or tramps as soon as they appear above the ground; people who live upon a highway have told me they despair of keeping them, and do we not all know the aspect of the shabby "loafer" with his whine and his basket of poor innocents, in their most lamb-like stage, who offers for sale the very things he took out of your garden a few hours before? An excellent thing it would be if people who were starting ferneries would make their purchases at some respectable firm, and not try to get plants for next to nothing. Better value would be had for the money, and such a course if persisted in would go far to spoil the illegitimate market.

It has often struck me that we might do some good, if not to the lowest class of all, at all events to the heedless 'Arrys and 'Arriettes at their school-time period of life, by teaching them the precious value of a growing plant. To alter character our prey must be caught young. Often have I sighed at cottage flower shows when looking at the "best collections of wild flowers," for which prizes were offered and given. These collections (senseless and ugly) meant that the country round had been ransacked for miles and bared of every flower that was rare or pretty (prizes were given for the most sorts), and a large bunch of dying or dead flowers was the result. Why not give prizes for the best collection of living wild flowers grown at home? (If we must have wild flowers at all.)

Another alternative would be a collection of wild flowers pressed and dried and named. For little children there need not be classification, simply the received name, and the local one if known, or all the names that could be found for the same plant or flower. This would create real interest, and foster a spirit of care and loving kindness which are just the sentiments we want to cultivate. Or there is photography, which has turned many a butterfly collector (and murderer) into a harmless and delightful artist, since he took to seizing the lovely things with the camera instead of with the net. Many a flower-spray and graceful grass has its picture taken unawares, for the sake of its visitors. Even School Board children are using Kodaks nowadays.

It is my happiness to live far enough away from any towns to enjoy the deep repose of country solitudes, where the banks and hedgerows of spring and early summer are so exquisite in their natural beauty that no man-made garden could compete with them. This makes my sympathies go out all the more to those who are debarred from the same joys.

"Pleasure is spread through the earth, in stray gifts to be claimed by whosoever shall find." Yes, indeed, but the pleasure is meant to be shared by all, and not snatched greedily for the whim of one, or still worse, wilfully wasted. Even in the country, sad to say, the same spirit of destructiveness is latent; a larger population would soon work mischief. To believe this one has only to walk home along the lanes from Sunday evening church. Tracks and "spoor" are visible

along the pathways in the shape of dying wild flowers idly gathered, then thrown aside, betraying too clearly the ruthless treatment they had received. The spotted Orchis, for instance, not being quite so common a flower as the Primrose or the Dog Violet, is always singled out for destruction, and the worst of it is the stems are not cut carefully but dragged and pulled at without compunction, roots and bulbs and all, so that we are very sure the little Orchis-plant will never again be able to take his "annual step across the earth." It is very pitiful. Let anyone who has any suggestion to make come forth and make it, ere it is too late. In no political sense, but in the interests of our dear English Ferns and wild flowers, let us all cry out "Protection!"

F. A. B.

### EUCALYPTUS GLOBULUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the note in THE GARDEN of the 9th inst. it may interest your readers to know that there is a specimen of Eucalyptus globulus in the gardens here 43 feet 3 inches in height, with a trunk 3 feet 2 inches; also Eucalyptus coccifera 27 feet 9 inches in height. Both were raised from seeds ten years ago. Among the several Bamboos growing here is Bambusa palmata, planted in April, 1898. It has covered the ground 76 feet round, and it is 8 feet 3 inches in height. Phormium tenax is also quite at home here. Some plants are over 27 feet round and 7 feet 9 inches in height.

H. G. JONES (Bailiff).

Cefnamulch, Pwllheli, North Wales.

### SCIADOPITYS VERTICILLATA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The note by "A. P. H." on page 236 of THE GARDEN calls attention to a much-neglected conifer. There is a large specimen at Pennyhill Park, Bagshot, fully 25 feet high, growing in a moderately sheltered situation on a natural terrace halfway down a slope. It is not, however, a really first-class specimen, as it has been allowed to make several leaders; but the plant is now being taken in hand, and will probably be more shapely in the course of a few years. A great point with this conifer is to keep it to a single stem, as it has a great tendency to make several leaders, especially in a young state. From what I have seen of it S. verticillata requires a deep soil, moderately light but not too wet. It is of very slow growth, and after being transplanted I have known the trees stand for a year without making any fresh roots, though keeping in good health. Like many other slow-growing trees, however, it will stand a great deal of injury without being killed. It is a conifer that is worth planting, as it is distinct and handsome; and I believe a deep soil with an admixture of leaf-soil or peat will be found to suit it best.

Bagshot, Surrey.

J. CLARK.

### THE EARLY CHRYSANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—All lovers of Chrysanthemums have had their attention directed to the production of early-flowering varieties within recent years. Many writers have repeatedly pointed out the advantages of raising them, and at the leading shows the specimens exhibited have been such a distinct advance upon the older families that it is no wonder the newer sorts have become popular. But it is surprising that Mr. D. B. Crane is apparently unaware of the existence of many superb varieties. In the list in THE GARDEN of the 2nd inst. varieties are omitted regarding the excellence of which there can be no doubt. For instance, Mr. Crane includes in his list a plant called "Flame" but omits "The Champion"; he places a little stranger known as Dainty among "the best," but has nothing to say for White Masse. Yet The Champion gained the award of merit at the Royal Horticultural Society last autumn, and White Masse was given the first-class certificate at Edinburgh. I venture to append a list of early-flowering varieties which may interest your readers:—

*The Champion*.—A deep yellow, the colour of W. H. Lincoln. A magnificent flower, slightly incurving.

*White Masse*.—A pure white, being a sport from Marie Masse.

*Vivian Prince*.—A deep yellow sport from Ivy Stark.

*Rosalind*.—A splendid plant, with a flower of a lovely blush pink, shaded cream; it is quite 4 inches across.

*Blush Beauty*.—Almost the same colour as Mrs. J. R. Pitcher, but producing a much greater profusion of flowers. Exquisite in sprays.

*Golden Beauty*.—Large flowers of a rich golden shade. Very free flowering.

*Orange Pet*.—Another golden colour, bearing large and exquisite flowers.

*Market Yellow*.—A yellow sport from Market White.

*Roi des Blancs*.—A glorious white, and fully deserves its royal title.

*La Parisienne*.—White, with a cream centre, changing eventually to pure white when fully expanded. Very free flowering.

*The Sparkler*.—Crimson, slightly incurving, and especially suited to borders.

*September Belle*.—Pearl pink, magnificently free, and suitable for sprays.

Chelmsford.

HENRY BARNES.

## NURSERY GARDENS.

HIPPEASTRUMS (AMARYLLIS) AT CHELSEA.

AS the month of April comes round the Hippeastrums in the Chelsea nursery of Messrs. James Veitch and Sons, Limited, make an unique and attractive display. This season they are arranged in a low span-roofed house. Upon entering the house one is first impressed by the fact that the blooms are unusually large, due probably both to good culture and improved varieties. We measured the flower of one variety named Brabante and found that the upper sepal was 4½ inches wide, from tip to base the bloom measured 9 inches, and the average width of the sepals and petals was 3½ inches.

All the plants are growing in pots, one bulb in each pot, some of the bulbs have produced two escapes of flowers. There are 1,150 plants in the house, all in bloom, so it is needless to say that the resulting display is a good one. The finest varieties so far as good form, large flowers, and rich colouring are concerned appear to be among the scarlets, crimsons, and near shades of colour, although many of the blooms with white ground, more or less marked with some shade of red, are of very dainty and pleasing appearance.

Some of the finest varieties are Minterne, red-crimson, with deep crimson centre, a strikingly handsome flower; Rupert, deep scarlet, with intense crimson centre, very shapely; Elvina, large, scarlet, with pure white throat, the white also running into the petals; Cyrus, pure white ground, marked with light red; Adrastis, of perfect form, the ground colour white and sulphur, prettily netted with red; The Favourite, rich velvety scarlet, suffused with crimson; Conqueror, brick-red, suffused with scarlet, a large handsome flower; Phoedon, deep scarlet, with darker centre, the dark colouring suffusing into the petals; Juvantea, of medium size, with sulphur ground colour and light crimson markings; Eglamour, a very large handsome bloom, deep scarlet, with a suffusion of crimson in the centre; Himeria, a dainty bloom, the ground colour white, with rose-red markings; Herinita, the predominating colour is orange-red, or red-brown, while there is a suffusion of magenta here and there, the centre is green; Linda is a charming flower of good form, the white ground colour being netted with brick-red; Mesona is of medium size, perfect shape, with finely recurring sepals and petals, the colour is rich scarlet, with white centre, and white showing through in other places. Although we

could not find a white *Hippeastrum*, we noted that the ground colour of many of the lighter flowers is a much purer white than used to be the case, so this may be said to be an advance in the right direction. It remains but to eliminate the faint colouring on some varieties and then we shall have a pure white. As these flowers approach nearer to the ideal in the matter of form and colour it becomes increasingly difficult, of course, to produce new, improved varieties, therefore progress is not so rapid or so easy now as it was some years ago. Some of the scarlet *Hippeastrums* in Messrs. Veitch's collection are very fine, and few plants now in flower can surpass them for rich colouring.

We have rarely seen the conservatory at the Chelsea nursery looking better than it does now. Immediately inside the door there is a bank of those lovely *Rhododendrons* *R. Veitchii* and *R. exoniensis*, behind these and filling the centre of

## MISCELLANEOUS.

### SOME RECENT NEW PLANTS.

**D**URING the past few years Messrs. James Veitch and Sons, Limited, Chelsea, have introduced to cultivation several interesting and meritorious plants, and it may not be without interest now to mention the most important of them.

*Aconitum Wilsoni*, said to be synonymous with *A. Fischeri*, *A. autumnale*, and *A. californicum*, is a native of China. It is a tall, erect-growing species, 5 feet to 6 feet high, with large pale blue flowers. It commences to bloom about the beginning of September and continues until the end of October.

*Senecio tanguticus* is a new and distinct species,

raised from seed sent home by Mr. Wilson from Central China. It is a strong-growing, herbaceous perennial, with erect, leafy stems, reaching a height of from 6 feet to 7 feet, and branching upwards. The flowers are produced in dense panicles at the apices of the branches. They are golden yellow, small individually, but conspicuous in a mass.

*Astilbe Davidii* is a most attractive hardy herbaceous plant, native of China, where Messrs. Veitch say it

grows in shady places and by water courses. It is a strong-growing perennial, with elegant tufted leafage and graceful spikes of deep rose-violet, borne on stems 6 feet or more high. The leaves are bronze green when young, becoming bright green when mature. The flowering stem is 2 feet to 3 feet high.

*Actinidia chinensis* is considered to be the most important species of a genus so far as its garden value is concerned. Messrs. Veitch say that it has long been known to science, specimens having been sent home by Fortune when travelling for the Royal Horticultural Society, and later by Maries, but by neither was it introduced to cultivation. It has recently been raised from seed sent home by Wilson from Hupeh, Central China, and has proved hardy and of rapid growth in the Coombe Wood Nursery. The plant is a climber, with leaves resembling those of a Vine, but varying in shape, dark

green above, tomentose beneath. It has not yet flowered in Britain, but in its native country it produces handsome yellow flowers 1½ inches in diameter, borne in clusters. They are succeeded by edible fruits about the size of Walnuts and with the flavour of ripe Gooseberries. Messrs. Veitch recommend this *Actinidia* as a pillar or pergola plant.

Among new ornamental Vines *Vitis armata* and *Vitis Thomsonii* appear to be the most valuable. *V. armata* has bold and striking foliage, both stems and leaf-stalks armed with curious green hook-like growths which can hardly be called prickles. The leaves are large, cordate, deep green, turning a rich crimson in autumn. *V. Thomsonii* has purple foliage and stems, and is a very graceful plant.

Each leaf is divided into five leaflets; the upper surface is greenish purple, with purple mid-rib and margin, claret colour underneath. This purple hue changes to deep purplish red in autumn.

*Buddleia albiflora*, with pale mauve flowers, with orange throat; *B. variabilis* var. *veitchiana*, more robust than the species, and with larger flower-spikes; *Jasminum primulinum*, with larger and brighter-coloured flowers than *J. nudiflorum*, and contemporary with the leaves; and *Davidia involu-crata*, a tree which when in full flower in Central China is said to be a marvellous sight, owing to the intermingling of the large white bracts and green leaves, are other notable plants of recent introduction.

A. H. P.

## SOCIETIES.

### FLORAL FETE AT DUBLIN.

ON the 14th inst. a floral fête was held in Dublin on behalf of the Royal Horticultural Society of Ireland, and in which Lord and Lady Ardilaun took great interest and gave much practical help. That artistic taste and intelligent skill well directed had co-operated together enthusiastically for the making of "La Floralie" specially distinguished among flower shows was evident at first to those who went to the University Building, Earlsfort Terrace, on a recent afternoon. First, there was a fine collection of plants and flowers, very beautiful and refreshing to look upon, and there was a huge crowd of ladies who came to admire the show, to gratify their love for flowers, and to help the worthy object for which this special exhibition and fête were undertaken. The spacious concert hall was the bazaar or place of sale where flowers and plants of every description were offered for sale at a mere nominal rate. Here four stalls, representing the four provinces of Ireland, were established, and they were a novelty in the way of bazaar stalls. There was none of the garish trappings which one is accustomed to see at other fancy fairs. These stalls were decorated with curtains of Ivy and other trailing plants, studded here and there with bunches of yellow Daffodils, and the stock which was offered for sale consisted solely of flowers and plants. The aspect of the hall, as may be imagined, was very pretty. As this was made also the annual spring show of the Horticultural Society, there were a great many exhibitors of flowers and plants and vegetables. These exhibits found a place in the small concert hall and in the gallery of the central hall, where they presented many attractions in bloom and colour. The central hall was converted into a tea-room—more like a garden than a room—where tall Palms and plants and flowers lent the saloon quite a luxurious air. At the end of this hall a smoking divan was fitted out, and at the end of the large concert hall there was a space suitably furnished where those who felt tired could lounge at will, and watch all that was going on about them. What may, for want of a better term, be described as side-shows, were also very attractive, and were well patronised.

With regard to the private exhibits and nursery-men's exhibits, one can only say that they were, some of them, the best that have been seen at the society's shows for some years past. For pot Roses, Mr. John Mullen, of Baggotrath House, was awarded the president's (Lord Ardilaun's) challenge cup, value £10. A challenge cup value £15 was won by Mr. Ernest Bewley, of Cowper Road, for a collection of Roses, twenty-four blooms; and in the nurserymen's class a gold medal was recommended to be given to Messrs. Alex. Dickson and Sons for their fine show of Roses, Tulips, Hyacinths, and Narcissi. Miss Currey, of Lismore, was recommended for a gold medal for a choice show of Narcissi, and silver medals were recommended to Sir J. Gore Booth and Mr. C. M. Doyne, of Gorey. Messrs. Pennick and Co., of Delgany, showed a fine group of decorative plants, for which they were commended. Messrs. Hogg and Robertson of Dublin, were recommended a silver medal for their fine collection of Narcissi, which included all the most recent additions to this interesting family.



GREY-EDGED AURICULA WILLIAM BROCKBANK (LIFE SIZE).

[Shown on Tuesday last at the National Auricula Society's exhibition.]

the house are standard Lilacs, *Rhododendrons*, *Viburnum Opulus*, *Azaleas*, *Laburnum*, *Wistaria*, &c., towering above dwarf plants of the same kind. The side stages are bright with groups of *Dicentra*, *Deutzias*, *Boronias*, *Lilacs*, *Ericas*, *Ghent Azaleas*, *Cyclamen*, *Spiræas*, and other plants in flower. Altogether the display is exceptionally bright and attractive. The fragrance of *Liliums auratum*, *longiflorum*, and others mingling with that of *Boronia*, *Staphylea*, &c., makes a visit to this house of still greater interest. Some plants of *Begonia Agatha* were pointed out to us as being of exceptional interest; they are in small pots, and now flowering freely for the second time this season. Some four months ago they were finely in bloom.

H. H. T.

It only remains to be stated that the opening ceremony and the first day of "La Floralie" fully realised all the hopes of its promoters. There was a good attendance on the second day and the evening. The scene well repaid a visit. There was a large attendance when, shortly after two o'clock, Lord and Lady Ardilaun arrived. They were received at the entrance by the committee, a number of the stallholders, and others, and were conducted in processional order to the platform.

Lord Ardilaun, in declaring the fête open, said Lady Ardilaun has asked me to declare on her behalf this floral fête open, and I have, therefore, great pleasure in doing so. We are very grateful to all the ladies and gentlemen who have contributed to the making of this great fête on behalf of the Royal Horticultural Society. I have no doubt that you all know that the society was in very deep water, and that there was some difficulty in evading its bankruptcy. The only mode then that was open to us was to have this floral exhibition. We trust that you may enjoy the show that has been provided for you, and the entertainments which accompany it, and that most of the citizens of Dublin will come to see it, and thus aid the society which has done so much good in the cause of horticulture for many years, and that it will be re-established on a sure and firm basis.

Mr. F. W. Moore said it devolved upon him, as chairman of the council of the Royal Horticultural Society, to propose a vote of thanks to Lord and Lady Ardilaun for all that they had done for the society, and for all the trouble which they had taken to come and open the show. The proposition he made was not a mere stereotyped one, it was the sincere expression of the gratitude of the council of the society towards all those who had contributed to make the fête a success. Most of those present were aware that the idea of holding this show was inaugurated at a meeting convened by Lady Ardilaun, and held a few months ago at the Shelbourne Hotel. Since that time Lady Ardilaun had not ceased to take the deepest interest in the work of promoting the show. Besides that, Lord and Lady Ardilaun had gone to great trouble and inconvenience in order to be here to open the fête. Therefore, there was ample reason for passing this vote of thanks. He availed of the opportunity of thanking the presidents and stallholders and all those who assisted them during the past few days in decorating the stalls, in bunching the flowers, and in arranging the other numerous details. He desired also to thank those who had contributed plants and cut flowers for sale; and finally the council had to thank the senate of the University for having placed the building at their disposal for holding of the fête.

#### PLYMOUTH DAFFODIL SHOW.

The Devon Daffodil and Spring Flower Society, which was formed last year under the presidency of the Earl of Morley, held its initial show in the Guildhall, Plymouth, on the 12th inst. The exhibition proved a great success, entries being numerous and of high quality. Though there are many very beautiful gardens in Devon whose owners take a keen interest in their flowers, the cult of the Narcissus has not been studied to the same extent as in the neighbouring county of Cornwall, and it was hoped by the originators of the Devon society that if Cornish growers could be induced to compete an object-lesson would be given to residents in Devon which would lead them to take an interest in the hybridisation of the Narcissus, and in the growth of the rarer varieties of that beautiful flower. Fortunately, the Cornish Daffodil growers responded nobly to the invitation, and had their reward in carrying off the chief prizes both in the open and amateurs' sections with magnificent stands of rare and lovely flowers, which were scrutinised with the closest attention by the crowds of visitors who thronged the hall, many of whom, it is to be hoped, are already fired with the ambition to make the culture of the Narcissus their hobby. The exhibition was divided into three sections, the first being open to all, the second to private growers, and the third to residents in the county of Devon. In the last section the entries were very numerous, but the stands, although many were of high quality, lacked the colour effect gained in the Cornish stands by the rarer blossoms.

#### PRIZE LIST.—DIVISION I.

Collection of forty varieties Daffodils.—Silver cup value £10, Rev. A. T. Boscawen, with a splendid stand containing P. R. Barr, Horaeffeldii, Queen of Spain, Siren, Golden Bell, J. B. M. Camm, Glory of Leiden, Mme. de Graaff, Mme. Plomp, Mrs. Camm, bicolor from Dunston, Captain Nelson, John Bain, Peach, Mrs. Langtry, Beatrice Heseltine, Queen Bess, Flamingo, Miriam Barton, Seagull, Gloria Mundi, Horace, Lucifer, M. M. de Graaff, Autocrat, Dr. Fell, Falstaff, Barri conspicuus, Mabel Cowan, Odorus plentus, Ensign, Little Dirk, Lulworth, Beatrice, C. J. Backhouse, Madge

Matthew, Dorothy Yorke, Resolute, Flora Wilson, Poeticus precox grandiflorus; second, Messrs. Pope and Sons.

Twelve distinct Magni-Coronati.—First, Messrs. Pope and Sons, with Glory of Leiden, Excelstor, King's Norton, Maximus, Victoria, Mme. de Graaff, Duchess of Normandy, tortuosus, J. B. M. Camm, Mrs. Batteridge.

Twelve distinct Medio-Coronati.—First, Rev. A. T. Boscawen, with Katharine Spurrell, Dr. Fell, Princess Mary, Mrs. Langtry, Bridesmaid, Lucifer, Madge Matthew, Gloria Mundi, Lulworth, Flora Wilson, Peach, Seagull; second, Messrs. Pope and Sons.

Six distinct varieties true Poeticus.—First, Mr. C. Dawson, with an exceptionally fine stand containing Juliet, Horace, Dante, Sapho, Almira, and P. ornatus.

Three distinct doubles.—Second, Messrs. Pope and Sons.

Single bloom Magni-Coronati.—First, Messrs. Pope and Sons, with King's Norton, very fine.

Single bloom Medio-Coronati.—First, Rev. A. T. Boscawen, with Lady Margaret Boscawen; second, Messrs. Pope and Sons, with White Queen.

Single bloom Parvi-Coronati.—First, Messrs. Pope and Sons, with Poeticus precox grandiflorus; second, Mr. C. Dawson, with Horace; third, Rev. A. T. Boscawen, with unnamed seedling.

Six pot Roses.—First, the Devon Rosary, Torquay.

#### DIVISION II.—OPEN TO PRIVATE GROWERS ONLY.

Collection of twenty varieties Daffodils.—First, Mrs. E. H. Williams, with J. B. M. Camm, Victoria, Emperor, Empress, P. R. Barr, Mme. de Graaff, Barri conspicuus, Autocrat, Princess Mary, White Lady, Flora Wilson, Madge Matthew, Lulworth, Rajah Brooke, Cassandra, Falstaff, Firebrand, Ellen Barr, poeticus ornatus, Queen of Spain; second, Misses Bayly.

Twelve distinct Daffodils.—First, Miss Mabel Williams, with White Lady, Emperor, Victoria, Una, C. J. Backhouse, Mme. de Graaff, Captain Nelson, Princess Mary, poeticus ornatus, Falstaff, John Bain, Almira.

Twelve distinct Daffodils, no bulb costing over 10s.—Equal first, Mrs. E. H. Williams and Mrs. Walker Tyacke; third, Miss Mabel Williams.

Six distinct Magni-Coronati.—First, Mr. Coryndon Matthews, with Emperor, Empress, Maximus, Victoria, P. R. Barr, J. B. M. Camm; second, Misses Bayly; third, Mr. E. H. Hawker.

Six distinct Medio-Coronati.—First, Lady Margaret Boscawen, with a perfect stand containing Lucifer, Katharine Spurrell, Waterwitch (very beautiful), Lady Margaret Boscawen, Gloria Mundi, Enid; second, Mr. P. D. Williams, with a stand but little inferior; third, Mrs. E. H. Williams; fourth, Miss Mabel Williams. A very good class.

Six distinct Parvi-Coronati.—First, Mr. P. D. Williams, with Blood Orange, Dawn, Ptarmigan, Oritamide, John Bain, Shooting Star, a beautiful and bright stand; second, Mr. G. Soltau-Symons.

Six varieties true poeticus.—First, Mr. P. D. Williams, with Horace, Cassandra, P. ornatus, Chaucer, Dante, Almira.

Six distinct Daffodils, no bulb costing over 5s.—First, Mrs. Walker Tyacke; third, Mr. G. Soltau-Symons.

Three distinct doubles.—Second, Mr. E. W. Hawker; equal third, Miss Carew and Captain Parly.

Single bloom Magni-Coronati.—First, Mr. P. D. Williams, with Maximus, grand; second, Mrs. Walker Tyacke, with Mme. de Graaff; third, Mrs. E. H. Williams, with Mme. de Graaff.

Single bloom Medio-Coronati.—First, Mr. P. D. Williams, with Ivory Gull, very beautiful; second, Mrs. Walker Tyacke, with Gloria Mundi; third, Mrs. E. H. Williams, with White Lady.

Single bloom Parvi-Coronati.—First, Mr. P. D. Williams, with Horace, a perfect flower; second, Mrs. Walker Tyacke, with Almira; third, Mrs. E. H. Williams, with Homer.

Collection of twelve hardy spring flowers.—First, Mrs. W. Coryton, with Lenten Roses, double white Primrose, Doronicum Harpur Crewe, Lencojum aestivum, Francoa ramosa, Anemone fulgens, A. ranunculoides, Tiarella cordifolia, Aubrieta deltoidea, Muscari botryoides, Primula Sieboldi, Saxifraga.

Three bunches single Violets.—First, Captain Parly.

Three bunches double Violets.—First, Captain Parly; second, Mr. F. Bradshaw; third, Mr. T. Martin.

Group of Rhododendrons.—First, Mrs. W. Coryton; second, Mrs. J. Williams.

Six trusses Rhododendrons.—First, Mrs. W. Coryton; equal second, Mrs. J. Williams and the Earl of Morley; fourth, Mr. T. Martin.

Finest truss Sikkim Rhododendron.—First, Mrs. W. Coryton; second, Mrs. J. Williams.

Finest truss of outdoor Rhododendron.—First, Mrs. W. Coryton; second, Mrs. J. Williams.

Six blooms Camellias.—First, Mrs. J. Williams; second, the Earl of Morley.

Three bunches Anemones, excluding A. fulgens.—First, Miss R. Williams.

Six bunches Anemone fulgens.—First, Miss R. Williams; second, Mr. H. G. Hawker; third, Mrs. Walker Tyacke.

Group of stove and greenhouse plants.—First, Admiral Parker; second, Mr. T. Martin.

Twelve Cyclamen.—First, Mr. T. Martin.

#### DIVISION III.—OPEN TO DEVON ONLY.

Fifteen varieties Daffodils.—Equal first, Mrs. R. Mallock and Mr. G. Soltau-Symons; equal third, the Earl of Morley and Dr. Clay.

Six distinct Magni-Coronati.—First, Mr. G. Soltau-Symons; second, Mr. F. Bradshaw; third, Mr. H. G. Hawker; fourth, Mrs. Yonge.

Six distinct Parvi-Coronati.—First, Mr. G. Soltau-Symons.

Three distinct Magni-Coronati.—First, Miss L. Hawker; second, Captain Parly; third, Mrs. J. Mallock.

Three distinct Medio-Coronati.—First, Captain Parly; second, Mrs. J. Mallock; third, Mrs. Yonge.

Three distinct Parvi-Coronati.—First, Mrs. R. Mallock; second, Mr. Coryndon Matthews.

Single bloom Magni-Coronati.—First, Mr. T. Batson, with Cymry, a seedling of clear yellow colour with spreading trumpet and short perianth; second, Mr. F. Bradshaw, with Mme. de Graaff; equal third, the Earl of Morley, with Glory of Leiden, and Mr. H. G. Hawker, with Victoria.

Single bloom Medio-Coronati.—First, Mr. T. Batson, with Chryseis, a pretty seedling; second, Mr. H. G. Hawker, with Mrs. Barton; third, Captain Parly, with Sir Watkin.

Single bloom Parvi-Coronati.—First, Mr. G. Soltau-Symons, with Bullfinch; third, Mr. Coryndon Matthews, with John Bain.

The Daffodil classes in the Devon division were very well filled, and Mr. T. Batson's seedlings were especially good, and would probably have gained recognition in the open division.

Six bunches Polyanthus.—First, Mr. R. Watts; second, Mr. T. Bulteel; third, Mrs. R. Mallock.

Three bunches Primroses.—First, Mr. T. Bulteel; second, Mr. F. Bradshaw; third, Miss Richardson.

Three bunches single Violets.—First, Mr. J. Pote; second, Mrs. R. Mallock; third, Mr. T. Martin.

Three bunches double Violets.—First, Miss Conran; second, Captain Parly; third, Dr. Clay.

Collection of twelve hardy spring flowers.—First, Mrs. R. Mallock, with Lenten Roses, Muscari botryoides, Corydalis solida, Polyanthus, Wallflower, Fritillaria imperialis, Iris stylosa, double Violets, Anemone apennina, Erythronium, Violet Perle Rose; second, Miss Richardson; third, Mr. G. Soltau-Symons; fourth, Mr. E. Hawker.

Three pots trumpet Daffodils.—First, Mr. G. Soltau-Symons; second, Captain Parly; third, Mrs. Bainbridge.

Six pots Auriculas.—First, the Earl of Morley; second, Mr. T. Batson.

Six pots single Tulips.—First, Mrs. Bainbridge; second, Dr. Thompson.

Many prizes were given for other pot plants, which were well contested for.

#### CERTIFICATES OF MERIT

were awarded to Mrs. Bainbridge for six pots of Mignonette, very fine; to Miss Carew, for three splendid pots of Persian Cyclamen; to Messrs. T. Challice and Son, for Ceanothus puniceus albus and the spotted Rhododendron Prince of Wurtemberg; to Mr. G. Reuthe for Iris Heyne and Narcissus Maud; to Messrs. R. Veitch and Son for Tree Peony Ellen Willmott; to Messrs. Barr and Sons for Narcissus Gipsy Lad; to Mr. T. Batson for seedling Narcissus Doreen, a white flower, two or three blooms being held on a stem, a cross between N. calathinus and N. Emperor; to Mrs. E. H. Williams for a seedling Narcissus Rajah Brooke; to the Rev. E. Bourne for a seedling Narcissus; and to Mr. R. Sydenham for bulbs grown in fibre.

A silver cup given for not more than thirty varieties of flowering shrubs was won by Mrs. W. Coryton, who staged Berberis aquifolium, B. Darwinii, Choisya ternata, Prunus Pissardi, P. domestica, Ceanothus puniceus, Azalea mollis, A. amena, Magnolia soulangeana, M. stellata, Daphne indica, D. laureola, Skimmia japonica, Erica codonodes, double Kerria, Rhododendron ciliatum, Camellia, Cytisus racemosus, Piptanthus nepalensis, Spirea prunifolia fl.-pl., Pieris formosa, Amygdalus, Forsythia suspensa, Pyrus japonica, Acer rubrum, Lapageria, Ceanothus rigidus, Ribes sanguinea, Illicium religiosum, and Acacia longifolia.

A silver cup given for the best Narcissi shown in the Devon classes was won by Mr. G. Soltau-Symons.

#### NURSERYMEN

made a very effective display.

The Devon Rosary, Torquay, had a fine collection of pot-Roses in bloom, containing many of the best and newest varieties of Hybrid Perpetuals and Teas.

Messrs. Wallace, Colchester, staged Iris sindjarensis, I. Warleyensis, Anemone Pulsatilla, A. P. alba, Tulipa praestans, Bellis sylvestris, Shortia galacifolia, Galaxaphylla, Cyripedium Calceolus, Gerbera Jamesoni, and other plants.

Mr. G. Reuthe, Keston, Kent, had Tecophelia cyanocrocus (very fine), Parochetus communis, Orchis sambucina, O. longicornis, Daphne Philippi, Grevillea alpina, Trillium ovatum, Muscari botryoides carneum, M. commutatum, Cyranthus Flambeau, C. Marian, Saxifragas, Primulas, Anemones, and Daffodils.

Messrs. R. Veitch and Son, Exeter, showed a large and bright exhibit, having Camellia reticulata, Lotus pelorhynchus, Canarina campanulata, Dimorphotheca Ecklonis, Corylopsis pauciflora, splendid Amaryllis, Primula Kewensis, Boronia, Magnolias, Acacias, Correas, large-flowered Clematis, and flowering shrubs.

Messrs. T. S. Ware, Feltham, staged Iris Korolkowi Leitchini, I. Eggeri, Cacti, Echinocacti, Calochorti, Sarracenia, Megasea Stracheyi, Ramondia, Cyripedium japonicum, Incarvillea Delavayi, Mertensia paniculata, Trillium erectum, with Primula denticulata, and P. d. alba, very fine.

Messrs. Barr and Sons exhibited a fine stand of Narcissi, among which were Peter Barr, Gipsy Lad, Firebrand, Duke of Bedford, Lucifer, and all the leading varieties.

Messrs. T. Challice and Son, Plympton, had, besides Ceanothus puniceus albus and Rhododendron Prince of Wurtemberg, which received certificates of merit, Calistemon, Andromeda, Bamboos, Anthuriums, Chorizemas, and Magnolia Lenee.

Mr. R. Sydenham, of Tenby Street, Birmingham, showed a group of Daffodils and Tulips grown in moss fibre.

Messrs. Saunders and Biss, Exeter, had a stand of models and photographs exhibiting their patent method of glazing.

#### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

The usual monthly meeting was held at the Caledonian Hotel, Adelphi Terrace, Strand, on the 4th inst., Mr. E. Burge in the chair. Three new members were elected. Nine members were reported on the sick fund, the amount paid out for the month being £31 1s. The usual quarterly grants were made to members on the benevolent fund.

## ROYAL BOTANIC SOCIETY.

The second of a series of exhibitions was held in the Botanic Gardens, Regent's Park, on April 13, and many attractive groups of plants and flowers were shown.

Miss Adamson, South Villa, Regent's Park (gardener, Mr. G. Kelf), exhibited a very pretty group of miscellaneous foliage and flowering plants and Orchids, arranged so as to make a most effective display. Gold medal.

Messrs. Stanley, Ashton and Co., Southgate, N., exhibited a bright group of Orchids, which comprised such as *Oncidium concolor*, *O. varicosum* Rogersii, *Cattleya Schroderae*, various *Odontoglossums*, *Cypripediums*, *Lycaste Skinneri* virginalis, *Cymbidium lowianum*, &c. Gold medal.

Messrs. Cutbush and Son, Highgate, N., made a good display with shrubs in flower, such as Magnolias, Azaleas, Lilacs, *Viburnum Opulus*, *Prunus trioba*, *P. Malus floribunda*, *Laburnum Alkekengeri*, &c. Silver-gilt medal.

Messrs. William Bull and Sons, Chelsea, exhibited a group of *Amaryllis* (Hippeastrums). *Achilles*, Mikado, and Firebrand were good sorts. Silver-gilt medal.

Messrs. Frank Cant and Co., Braisevic Nursery, Colchester, had an admirable display of cut Roses. *Maréchal Niel*, *Perle von Godesberg*, *Princess Beatrice*, *Mme. Jean Dupuy*, and others were beautiful. Gold medal.

Messrs. R. H. Bath, Limited, Wisbech, had a group of Daffodils, in which many bunches of good varieties were shown. *Henry Irving*, *Telamonius*, *Albicans*, *Horsfieldi*, *Alma*, *White Queen*, *Achilles*, *Emperor*, and others were included. Large silver-gilt medal.

Messrs. William Paul and Sons, Waltham Cross, Herts, had a group of flowering Peaches and Roses in pots. Among the latter were *Mme. Durand*, *Comtesse de Cayla*, *Mme. Jules Gravereaux*, *Warrior*, *Dora*, and *Agnes* (the three last quite new). All these Roses were very beautiful. *Agnes* is a primrose-coloured Tea, *Dora* is a Hybrid Tea, with large silver-pink blooms, while *Warrior*, a first-class forcing variety, has deep cherry-red flowers. Large silver-gilt medal.

Messrs. R. G. Cuthbert and Sons, Southgate, N., had a brilliant display of forced shrubs in flower. The varieties of *Azalea mollis* were very striking, and their rich colouring was relieved by *Spiræas*, *Ribes albidum*, *Choisya ternata*, &c. Gold medal.

Mr. John Russell, Richmond, exhibited a collection of Clematises in pots, all of the Jackmanni type. Large silver medal.

Messrs. Barr and Sons, King Street, Covent Garden, exhibited Daffodils in great variety, such good things as *Peter Barr* (the White Trumpet), *King Alfred*, *Lord Roberts*, *Big Ben*, *Duke of Bedford*, *J. B. M. Camm*, *Weardale Perfection*, *Lucifer*, *Gloria Mundi*, *Apricot*, *Firebrand*, *Mme. de Graaf*, *Alice Knights*, and many more beautiful Narcissis. Besides these there were *Anemone Pulsatilla*, Spanish Irises, Tulips, and some rock plants. Gold medal.

Messrs. B. R. Cant and Sons, the Old Rose Gardens, Colchester, exhibited a group of Roses, in which their new *Blush Rambler* was very conspicuous. Cut blooms of *Bridesmaid*, *Duke of Wellington*, *Fisher Holmes*, *Mrs. W. J. Grant*, and other good varieties were also included. Silver-gilt medal.

Table decorations were shown by Mr. Williams, Oxford Road, Ealing. Silver medal.

Messrs. Barton and Sons, Limited, Walsall, showed improved double-pointed spikes for garden fences.

Messrs. Champion and Co. exhibited their tubs for shrubs, and the *Charteris Protector* was shown by the *Charteris Protector Company*, Charterhouse Square, E.C.

Mr. A. P. Bruce, Chorlton-cum-Hardy, Manchester, showed his flower displays.

Certificates of merit were granted to *Narcissus Peter Barr*, N. King Alfred, and N. Strongbow (all from Messrs. Barr and Sons, Covent Garden); to *Calanthe discolor speciosa*, a new hardy species from Northern Japan (from Messrs. Cutbush and Sons, Highgate); and to *Verbena F. A. Bevan*, with pink, white centred flowers (from Mr. Henry Parr, Trent Park Gardens, New Barnet).

A demonstration of the working of motor and manual lawn mowers and edge-cutting machines was conducted by Messrs. Ransomes, Sims and Jefferies, Ipswich.

## ROYAL HORTICULTURAL SOCIETY.

There was a splendid display of flowers and plants on Tuesday last at the Drill Hall. It was the occasion of the annual show of the National Auricula and Primula Society also, so naturally these flowers, which are mentioned elsewhere, were extensively exhibited. Daffodils were perhaps at their best, so far as being shown at the Drill Hall is concerned, while Orchids, hardy plants, forced shrubs, cut Roses, ornamental shrubs, indoor plants, as Hippeastrums, were all well represented. The Orchid committee granted three first-class certificates and three awards of merit. The floral committee awarded two certificates and seven awards of merit, while the fruit and vegetable committee, as has become usual, had practically nothing to do. In the afternoon Mr. Masse de la Kew Herbarium gave a lecture on "Diseases of the Potato."

J. Gurney Fowler, Esq., South Woodford, exhibited a group of Orchids, consisting largely of *Dendrobium devonianum*, the long slender pseudo-bulbs masses of flower, and making a charming display. Other Orchids included were *Cymbidiums*, *Oncidium concolor*, *Dendrobium wardianum* album, *Cattleya Schroderae* alba, several *Cypripediums*, &c. Silver Flora medal.

In the group from Messrs. Sander and Sons, St. Albans, were *Lycaste schilleriana* magnifica, *Lælio-Cattleya dominiana*, *Cattleya lawrenceana* hysana, *L. purpurata* alba, L.-C. Bird of Paradise (L. flava x C. Mendelii), *L. purpurata* alba, *Anguloa Clowesi*, *Odontoglossum wilckeanum* Fairy Queen, *O. bellatulum* (crispum x *tripudians*), *O. loochristense*, *O. Pescatorei*, *Chondrorhyncha Chestertonii*, *Zygopetalum Sanderii*, and others, forming a very attractive display. Silver Flora medal.

H. T. Pitt, Esq., Stanford Hill, N. (gardener, Mr. F. W. Thurgood), showed a very pretty group of miscellaneous Orchids that contained many good things. In the centre was a fine plant of *Cymbidium lowianum* Pitt's variety, *Odontoglossum crispum* Lindenii, *O. C. Pittiae*, *O. C. Maund* Rochford, *O. C. King Richard*, all excellent varieties; *Cattleya Schroderae* alba, *Oncidium concolor*, *Cattleya schilleriana*, *C. Lawrenceana*, *Oncidium phymatochilum*, *Vanda teres*, some *Cypripediums*, &c., made a collection of great interest. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited Orchids in considerable variety. *Lælia Latona*, with its apricot-coloured sepals and petals and purple lip, was very bright, and so also were *Masdevallia ignea*, L.-C. *highburyensis*, *L. cinnabarina*, *Epidendrum Delphi* (orange red), and *Sophonitis grandiflora*. *Cattleya Mendelii*, L.-C. *Frederick Boyle*, L. Mrs. M. Gratrix, L.-C. *Zephyr*, *C. intermedia* alba, *Odontoglossum Pescatorei*, *O. luteo-purpureum*, *O. crispum*, *Dendrobium crepidatob-nobile*, *D. wigianum*, *Oncidium concolor*, *Epidendrum elegantulum*, *Cymbidium lowianum*, and others were noticed. Silver Flora medal.

Messrs. J. and A. McBean, Cooksbridge, showed a splendid group of varieties of *Odontoglossum crispum* and others. Many were finely spotted forms, and the plants were well grown, as was evidenced by the vigour of the racemes. *Cattleya intermedia* alba, *Oncidium concolor*, and others were included in this exhibit. Silver Flora medal.

Mr. H. Whateley, Kenilworth, showed several good *Odontoglossums* (Vote of thanks), and M. Vuylsteke, Loochristi, Ghent, also sent some finely spotted forms. Messrs. Hugh Low and Co., Bush Hill Park, Enfield, had a small group of Orchids, that included *Dendrobium jamesianum*, *D. wardianum* Lowii, *D. crepidatum*, *D. tortile* roseum, *D. chrysoxum superbum*, *Cymbidium lowianum* Bush Hill variety, with more yellow in petals and lobes of the lip; *D. devonianum*, *Trichopilia suave*, *Brasso-Cattleya Thorntonii*, several *Odontoglossums*, &c. Vote of thanks.

*Cymbidium lowianum* var. *Exquisiteum* and *Lælio-Cattleya Gertrude* (L. elegans x C. intermedia) were shown by J. O. Clarke, Esq., 20, Avenue Road, N.W. The *Cymbidium* bore twenty-four blooms on one raceme.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne, showed several fine *Odontoglossums*, one of which obtained a first-class certificate, and is described elsewhere. *Dendrobium X Venus* Oakwood variety was also shown by Mr. Cookson.

## NEW ORCHIDS.

*Zygopetalum gottoliana*.—The parents of this new hybrid *Zygopetalum* are *Z. Gauthieri* and *Z. Perrenoudii*, and the result of crossing them has been to produce a strikingly beautiful flower. The sepals and petals are chocolate-brown, with green showing through near the edges. The large lip is marked with violet upon a white ground, and it has a broad margin of white. The association of the brightly-coloured lip and dark sepals and petals is very effective. From Messrs. Sander and Sons, St. Albans. First-class certificate.

*Dendrobium Tharaites Veitch's variety*.—A large, handsome flower of rich colouring, the result of a cross between *D. splendissimum grandiflorum* and *D. Wigana*. The sepals and petals are of a uniform pale apricot colour. In the centre of the expanded lip is a large red-brown blotch, that shows well against the lighter colouring. From Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

*Odontoglossum crispum xanthotes Cooksonia*.—A lovely form, with pure white sepals and petals, marked with one or two small yellow blotches. The lip is rich yellow in the centre, with a white margin. A first-class certificate was given to this beautiful variety. From Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne.

*Cypripedium westesleyanum*.—This is a natural hybrid, whose supposed parents are *C. bellatulum* album and *C. concolor*. The leaves are prettily marked with green and white. The small dainty-looking flower has a primrose-coloured ground; the sepals and petals are dotted with crimson, while the well-formed lip, which is, perhaps, the best part of the flower, has a few dots near the mouth only. From F. Wellesley, Esq., Westfield, Woking. Award of merit.

*Cattleya Schroderae Fowler's variety*.—The chief attractiveness of this flower lies in the handsome lip, which is rich orange below the mouth, and in the throat also. A band of purple surrounds the orange, and in turn is bordered by palest lilac, which forms a margin. From Gurney Fowler, Esq., South Woodford. Award of merit.

*Odontoglossum crispum Venus*.—A large, shapely flower, with broad sepals and petals, the latter rounded and prettily crinkled. The sepals are suffused with pale purple, the petals are white, and the long, pointed lip is yellow in the centre, and surrounded by a broad white margin. The raceme on the plant shown was exceptionally strong, bearing seven open flowers and seven buds. From de B. Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables). Award of merit.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, R. Dean, C. E. Shea, Amos Perry, J. Jennings, J. A. Nix, C. R. Fielder, C. Dixon, R. Hooper Pearson, Harry Turner, H. J. Cutbush, E. T. Cook, R. C. Notcutt, J. W. Barr, C. E. Pearson, W. Cuthbertson, H. J. Jones, R. Wilson-Ker, W. P. Thomson, E. H. Jenkins, G. Paul, James Hudson, and E. Mawley.

Mr. G. Reuthe, Keston, Kent, had *Ramondias*, *Narcissus*, *Viola pedata*, *Anemone vernalis* alba, *Fritillaria citrina*, *Erythronium Johnsoni*, *Narcissus triandrus*, some interesting *Orchises*, *Primroses*, *Anemone robinsoniana*, and other choice plants mostly of the alpine class, forming a most interesting lot. Silver Banksian medal.

Mr. H. C. Pullham, Elsenham, Essex, also showed a rockery and alpine exhibit in which *Soldanella*, *Anemone Pulsatilla rosea* carnea, and such things were prominent.

Messrs. Balchin and Sons, Brighton, set up a highly interesting lot of hard-wooded things, in which such as *Aphelaxis macrantha purpurea*, *Tetratheca ericoides*, *Diosma capitata*, and *Erica propendens*, with *Acacia diffusa*,

and *Genetylis fuchsoides* made a charming and unusual display. A good batch of *Primula verticillata* was also noticeable. Silver Banksian medal.

Boxes of *Polyanthus* in variety displaying a good strain were shown by Messrs. Cannell and Sons, Swanley; red shades, however, predominated.

Pot plants of *Primula obconica* in several shades of colour were exhibited by Messrs. Storrle and Storrle, Dundee; and the plants were most freely flowered.

Mr. H. E. May, Edmonton, had a showy group of greenhouse plants, in which the cluster *Roses* made a very cheerful and pleasing feature. *Gardenia florida* in pots in flower was also prominent in the foreground. Silver-gilt medal.

Cinerarias of the stellata section with *Hippeastrums* made a brave show as arranged by Messrs. James Veitch and Sons, Limited, Chelsea. Some of the best *Hippeastrums* were *Ronda*, crimson; *Florian*, white, scarlet truss; *Marsus*, marone-crimson; *Verna*, deep crimson; *Hydrangea hortensia rosea*, and *Jasminum primulinum* were also finely shown. *Kalanchoe Felthamensis* with brilliant red flowers was very good.

Messrs. W. Cutbush and Sons, Highgate, staged an interesting lot of *Primulas*, *Auriculas*, and such plants. Among the latter were many of the best of the green and grey-edged varieties, together with a large colony of alpinas. Of *Primulas* there were representatives of all the known species and garden forms, many quite rare, especially among the alpine section. Gold-laced sorts were largely represented, and equally so those requiring greenhouse treatment.

Double white and double yellow Banksian *Roses* with Lilacs and other things came from Messrs. Paul and Son, Cheshunt. The former were freely grown on plants of the climbing type, and the profusion of blossoms made them very charming. Arching branches of the yellow variety were simply studded with flowers.

Messrs. Cripps, Tunbridge Wells, showed a highly interesting lot of *Acers*, all very beautiful and pleasing, and distinctly valuable for decoration.

The *Roses* from Messrs. Frank Cant and Co., Colchester, attracted attention. Some varieties as *Souv. de Pierre Notting* were past, but Mrs. E. Mawley, Frau Karl Druschki, Ethel Brown, and others were set up in pots.

The Guildford Hardy Plant Nursery had many beautiful alpinas and other hardy things. *Saxifraga Rhei*, *Primula frondosa*, *P. nivalis*, *Primrose Miss Massey*, crimson; *Iris pumila*, *Anemone fulgens*, *Thalictrum anemoneoides*, *Opthalmis verna*, *Rubus arcticus*, and *Atragene alpina* alba were all beautiful.

Messrs. J. Cheal and Sons, Crawley, showed alpinas and other hardy things in boxes. *Aubrietia Moerheimii*, rosy lilac, was very fine, also *Epimedium roseum*, *Lithospermum*, and *Phlox canadensis*. *Gentiana verna* was very fine. With a background of shrubs, such as *Ribes*, *Magnolia stellata*, *Skimmia*, *Berberis*, &c., they made a pleasing show. Bronze medal.

The alpine exhibit of Messrs. Jackman and Son, Woking, was of much interest. *Primula rosea*, *P. nivalis*, *Cornus canadensis* (white flowers in a three to five-lobed leaf setting), *Mertensia virginica*, *Haberlea rhodopensis*, *Ranunculus amplexicaulis* (white), *Edraianthus serpyllifolia* (with rich purple flowers), *Adonis vernalis*, and *Gerbera Jamesoni* were among the choicer things in a fine lot of plants.

Messrs. T. S. Ware, Limited, Feltham, had a collection of *Roses*, such as *Bridesmaid*, *Belle Siebrecht*, *Perle des Jardins*, *Mildred Grant*, and the new hybrid *Rugosa Conrad Ferdinand Meyer*. *Dorothy Perkins*, a pink cluster, and *Sunrise* were also good.

Messrs. Cannell and Sons, Swanley, set up an exhibit of zonal *Pelargoniums*, and of new varieties we select King Victor 1904, brilliant crimson-scarlet; Charles Curtis 1904, crimson, very rich and fine; Queen of Italy, salmon; and Mr. A. J. Bell, salmony scarlet, all of large size and rich colouring. A really fine display. Silver Banksian medal.

Messrs. William Bull and Sons, Chelsea, exhibited a selection of *Narcissis*, such as *King Alfred*, *Sir F. Drake*, *Victoria*, *Horsfieldii*, and others essential in a large gathering of these flowers.

From Messrs. Wallace and Co., Colchester, came a highly interesting lot of hardy things—*Fritillaria Melegris* in variety, *Anemone nemorosa* cerulea, *Adonis vernalis*, *Tulipa Eichleri* (crimson, with dark base), *Gerbera Jamesoni*, *Erythronium*, *Fritillaria recurva*, *Gentiana verna*, and many others. *Acers* and other foliage plants were also good.

*Roses* from Messrs. B. R. Cant and Sons, the Old Rose Gardens, Colchester, were very fine. *Blush Rambler*, *Austrian Yellow Briar*, *Mrs. Sharrman Crawford*, *Caroline Testout*, *Soleil d'Or*, with *Austrian Copper* were all fine. The profusion of *Blush Rambler* was very beautiful. Silver Banksian medal.

Messrs. Hugh Low and Co., Enfield, showed *Schizanthus*, yellow *Callas*, the yellow *Auricula Queen Alexandra*, *Malmaison Carnations*, and *Boronia* in good condition.

Messrs. R. and G. Cuthbert, Southgate, staged a grand lot of forced shrubs, Azaleas, Lilacs, *Staphylea*, *Acers*, white and blue *Wistarias*, *Dentzias*, and others. Silver-gilt Flora medal.

Messrs. Barr and Sons, Covent Garden, in a select lot of Daffodils showed *Peter Barr*, *Phil May*, *Baron de Soutelinho* (a fine bicolor), *Monarch*, *King Alfred*, *Mrs. G. H. Barr* (a flower very near *Peter Barr*), *King Alfonso* (soft lemon trumpet), *Elvira*, *Pyramus* (soft yellow bicolor), and *Henri Vilmorin* (a soft creamy trumpet flower) were among the best.

The silver vase given by Messrs. Barr and Sons, Covent Garden, was won by R. A. Danvers, Esq., Shepperton, with a choice assortment in capital condition. Captain Nelson, Golden Nugget, *Gloria Mundi*, M. J. Berkeley, Sir Watkin, poetical *Almira*, *Duchess of Westminster*, *Gloria of Leiden*, and *Mrs. W. Ware* were among the best in this lot.

Mr. Melville Brenstone, Lincoln, also showed a fine representative lot, in which we noted *King Alfred*, *Mme. Plemp*, and others.

Another fine collection was from J. A. Nix, Esq., Crawley, the flowers well disposed in a mossy bank. Silver Flora medal.

Messrs. Hogg and Robertson, Dublin, staged a good and varied lot of Narcissi, in which King Alfred and Lady Margaret Boscawen were conspicuous. Silver Flora medal.

Alpines and allied things in boxes came from Messrs. Peed and Sons, West Norwood, and a group of Anemone King of Scarlets from Mrs. Luther Holden, Ipswich.

Alpines, Primroses, Daisies, and the yellow Auriculas Golden Queen and Queen Alexandra were the chief things from the Misses Hopkins, Mere, Cheshire. The Auriculas were very charming.

Messrs. Gilbert and Son, Bourne, Lincoln, showed Aemones in superb form, King of Scarlets, and the double and semi-double forms of St. Bridget. These are very dazzling and showy just now in the garden.

Messrs. Veitch and Sons, Limited, Chelsea, had a large array of Narcissi of all sections, the best sorts being shown freely in masses. Silver Banksian medal.

Messrs. Pope and Sons, Birmingham, had a fine lot of new Daffodils, in which Surprise (a giant trumpet), Giant, King's Norton, and Weardale Perfection were all fine blooms of the trumpet class. Silver Flora medal.

Miss F. W. Curry, Lismore, Ireland, also had a formidable array of Daffodils, all sections of the flower being well represented. Enid, King Alfred, Lady M. Boscawen, White Queen, Lucifer, and Maximus superbus were conspicuous. Silver-gilt Banksian medal.

Mr. Charles Dawson, Penzance, had a choice lot. Some notable things were Shearwater, a Leedsii with orange-tinted cup; Orange Peel; Pilgrim, a large bicolor Leedsii; Will Scarlett, very fine; Kingfisher, a nearly white Queen of Spain type; Elizabeth, a very soft small Sir Watkin flower; with White Lady and Marie Louise, a fiery-cupped kind, as the best. Silver-gilt Flora medal.

Mr. R. H. Bath, Wisbech, also had a choice assortment. Three vases of Weardale Perfection, and Duke of Bedford, White Queen, King's Norton, M. J. Berkeley, Lucifer, Apricot, and others, all well shown. Silver Flora medal.

Narcissi were shown by H. R. Darlington, Esq., Potter's Bar, a choice lot being staged. Silver Banksian medal.

The Roses from Mr. G. Mount, Canterbury, were a grand feature, and displayed in numbers. Captain Hayward, Catherine Mermel, Mme. A. Chatenay, Ulrich Brunner, La France, Anna Olivier, and Niphetos were all shown in masses, and were most effective. Silver-gilt Banksian medal.

The Narcissi from the Rev. G. Engleheart, Dinton, Wilts, as usual, were a great treat. A few noted were Scarletta, most intense cup; Glitter, an improved Barri conspicuus; Virgil, a poetical with rich crown; Hidalgo, soft lemon, with deeper cup, Sir Watkin type; and Will Scarlett; with Argent and Penipo doubles.

Miss Willmott, Warley Place, Essex, had a small group of Narcissi, of which three varieties obtained awards. Apart from these, to which we shall refer next week, was Cormorant, a fine bicolor Ajax of the largest size. Some Cernuus forms were also shown.

The plants and flowers to which awards were given by the floral committee will be described next week.

#### AWARDS.

A first-class certificate was awarded to Hippeastrum Snowdon (Mr. W. H. Burns, Hatfield) and to Pteris Summeri (Mr. H. E. May, Upper Edmonton).

An award of merit was given to each of the following: Hippeastrum Ronda (Messrs. J. Veitch and Sons, Limited); Fritillaria inodora (Mr. C. J. Van Tubergo, jun., Holland); Ribes King Edward VII. (Messrs. Cannell and Sons, Eynsford); Iris Lorteti alba (Messrs. Cutbush and Sons, Highgate, N.); Rhododendron Harry Mangels and R. Rose Queen (both from Mr. H. A. Mangels, Seale); and R. Glory of Penjerick (Mr. R. Fox, Falmouth).

The Narcissus committee gave one first-class certificate and eight awards of merit. We shall describe the flowers next week.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. Dean (chairman), Messrs. J. Willard, E. Beckett, W. Pope, W. Fyfe, H. Parr, J. Line, G. Norman, W. Crump, G. Reynolds, R. L. Castle, H. J. Wright, G. Kelf, F. O. Lane, G. Wythes, J. McIndoe, and S. Mortimer.

The only exhibits before this committee were some few vegetables. No awards were made.

#### LECTURE.

Mr. G. Massee, of the Herbarium, Kew, gave a lecture upon "Diseases of the Potato." The three most important Potato diseases, said Mr. Massee, are Peronospora infestans (commonly called the Potato disease), black scab, and winter rot. Dealing first with Peronospora infestans, the lecturer said that the disease germ must have a certain combination of conditions, suitable temperature, moisture (the latter especially), &c., before it can germinate. The spores cannot germinate upon a dry surface. The fungus may be said to be always present awaiting suitable conditions for its development. He mentioned the folly of plunging diseased Potatoes into the ground; so long as the spores remain underground no harm is done, but some of them are sure to get to the surface, be blown about, and so help to spread the disease. The lecturer said that a good deal of Potato disease was due to negligence, it would really pay in the end to clear away and burn every diseased tuber. Cleanliness is a most important item in the prevention of disease. Another cause of disease was the planting of diseased sets; this should on no account be done. Many diseased tubers, however, showed no external signs of disease, yet when cut open rusty stains may be seen which are unmistakable evidence of its presence. This is one reason in support of cutting Potatoes before planting. Mr. Massee said that if it were possible to burn every diseased tuber for five years this Potato disease might be stamped out. While admitting the good results of change of seed, he said that there was a danger of importing diseased tubers at the same time. With regard to spraying, he said that, so far as its application to a large acreage of Potatoes is concerned, it was of doubtful value as a disease killer. It has the advantage, however, of prolonging the life of the plants some ten days, and this enables the tubers to attain better

development. Gas lime will kill this disease if it is used at the proper time—May to June—the fungus is then most sensitive and most easily destroyed. Gas lime has no effect when the mycelium has taken hold of the plant. Lime, although beneficial, is not so good as gas lime.

Black Scab.—With reference to this disease, Mr. Massee said it always starts in the Potato sprouts. The spores may be lurking in the "eyes," but there is no real disease until sprouting begins. This can only enter into soft delicate tissues. The black scab fungus differs from the Peronospora infestans in that it has only a resting spore condition, and, therefore, is rather more difficult to treat. The resting spores are impervious to all outward applications except in May and June, then the protoplasm is naked, and the minutest trace of gas lime will destroy it. Turning up the soil in winter is labour in vain, the spores like frost. The remedy for black scab is flowers of sulphur, although, said Mr. Massee, its application on a large scale may not at present be practicable. Tubers covered with sulphur and planted will be free from black scab. The sulphur kills the organisms as they emerge from their case to attack the sprouts. Although it may be impracticable to introduce sulphur throughout a large acreage of land, it is valuable to know that this would prevent the disease. Potatoes when dry should be sulphured before storing.

Winter Rot.—This, the third disease, is mainly spread by tiny mites in spring. The application of sulphur also prevents this disease. When the tubers are dry they should be sprinkled with it before storing. Mr. Massee said that the Potato scab could be cured by a mixture of half a pint of formalin dissolved in 15 gallons of water. Soak the tubers for two hours, and then put them to dry for three or four days before planting.

Mr. Alex. Dean said he had found that black spot generally followed after a tuber had been bruised. With reference to the way in which Peronospora infestans perpetuates itself, Mr. Dean said that Mr. Worthington Smith held the opinion that it was by resting spores, but he understood that Mr. Massee thought it was continued year by year by planting diseased tubers. It would be of great importance if this question were to be decided.

Dr. Masters, who was in the chair, said that growers neglected to take proper precautions to prevent the spread of disease. Mr. Massee and Mr. Dean had hoped there would be experiments in the Wisley garden with a view to learning more about Potato diseases, but, said Dr. Masters, those carried out at Chiswick some twenty years ago were of great value, and should not be forgotten. Mr. Massee was accorded a hearty vote of thanks for his lecture.

#### NATIONAL AURICULA AND PRIMULA SOCIETY.

The general verdict given by experts is that the exhibition held in the Drill Hall on the 19th inst. was remarkably good for such a season; indeed, not only was great surprise expressed that so large a display was brought together, but also that the quality was so good throughout. Quite a record was set up from the fact that six collections each of fifty Auriculas were staged, and it was a source of regret to the judges that they were prohibited by the state of the finances from awarding an extra prize in this class. Show Auriculas were staged plentifully and in surprisingly good character; the fine sunny weather of the few days previously had not only brought the flowers into bloom, but had imparted refinement to them. The alpine Auriculas were numerous, brilliant in colour, and refined in character, and though there was but one collection of twelve species of Primulas, the examples were very good. There were no double Primroses; not a single collection of six species. The giant Polyanthus were very fine indeed; Mr. S. Mortimer, and also Mr. J. Douglas, in particular, staging varieties of great excellence. Primroses were not so plentifully shown; they are earlier to bloom than the Polyanthus. The gold-faced Polyanthus was represented by a few finely-flowered plants from Mr. J. W. Bentley, of Manchester, supplemented by some smaller specimens of southern growth. The day was brilliantly fine. There was a large company, and it was difficult to see the plants during the afternoon, thus marking the interest shown in our popular spring flowers.

#### SHOW AURICULAS.

There were five collections of twelve show Auriculas, and Mr. James Douglas, Great Bookham, asserted his old supremacy by taking the first prizes with well-grown plants, which included—Green edges, Dr. Hardy, Abraham Barker, and Grasshopper; grey edges, Lancashire Hero (almost green), Amy Robsart, and George Lightbody; white edges, Magpie, Conservative, and Vesta; selfs, Mrs. Potts, Mrs. Phillips, and Ruby, a deep red self. Mr. J. Sargent, Cobham was second with a very praiseworthy twelve. He had of green edges, Shirley Hibberd (in very fine character, though a little over-sized), F. D. Horner, and Abbé Liszt; grey edges, George Lightbody and Richard Heady; white edges, Mrs. Bodwell, Perseverance, Acme, and Heather Belle; selfs, Gerald, Ruby, and Mrs. Potts. Mr. William Smith, Bishops Stortford, was a good third, and Mr. Charles Turner fourth.

The class for six show Auriculas is always a very popular one, and there were seven competitors. Mr. J. Sargent winning the first prize with a well balanced half-dozen, having of green edges, Gladiator and Abbé Liszt; grey edge, Richard Heady; white edges, Acme and Elaine; and selfs, Gerald, Mr. J. T. Bennett-Poc, Ashley Place, came second, also with good specimens, he had of green edges, Abbé Liszt and Mrs. Henwood; grey edges, Richard Heady and George Rudd; white edge, Acme; and self, Ruby. Third, Mr. J. Douglas. Two other prizes were awarded.

There were seven competitors with four Auriculas. Mr. F. A. Wellesley, Westfield, Woking, taking the first prize with a good quartette consisting of green edge, Shirley Hibberd; grey edge, George Rudd; white edge, Acme; and self, Mrs. Potts. Mr. J. H. Wilson, Sheffield, came second. He had green edge, James Hannaford; white edge, Acme; and selfs, Ruby and Cleopatra. Three other prizes were awarded in this class.

There were four competitors with a pair of Auriculas, Mr. A. S. Hampton, Reading, taking the first prize with George Lightbody and Ruby, very fine in colour. Mr. J. W. Bentley, Stakehill, Manchester, came second with Heather Bell and Ruby. Mr. R. Holding, Birmingham, was third.

Then came the classes for single specimens, several plants being staged in competition, seven prizes being awarded in each class, if a sufficient number of plants. Mr. C. Turner came first with F. D. Horner; Mr. J. Sargent was second with the same; and Mr. W. Smith third with a variety unnamed—an award in defiance of the rule that all plants must be legibly named. Grey edges.—Mr. J. T. B. Poc was first and second with George Lightbody, apparently the only two exhibited. White edges.—This was a weak class. Mr. W. Smith came first with John Simonite, and second with Acme; Mrs. Dodwell was third, but the name of the exhibitor did not appear. Selfs were more strongly represented. Mr. W. Smith came first with Mrs. Phillips; Mr. Hennell second with Zulu, very dark, Mrs. Potts being placed third.

Fifty Auriculas.—As already stated, there were six exhibits of these, and they filled a considerable space of table. The collection staged by Mr. J. Douglas outdistanced all the rest, the leading varieties, most of which were in duplicate, being: Green edges, Abbé Liszt, Rolt's Green, and a seedling; grey edges, Durham Ringleader, Amy Robsart, Lancashire Hero, George Rudd, and Ajax; white edges, Perseverance, Rachel, Heather Bell, Conservative, and Acme; selfs, Ruby, Mrs. Phillips, Sapphire, Mrs. Potts, and Black Bess. Second, Mr. W. Smith, who had F. D. Horner, Shirley Hibberd, Rachel, Durham, George Lightbody, Acme, Mrs. Dodwell, Blackbird, Mrs. Phillips, and seedlings. Mr. C. Turner was third.

There was a maiden class for four Auriculas, in which Mr. C. Bick was first; also for two Auriculas, in which Mr. A. J. Cooper was first, and Mr. S. J. Culpeck second; also classes for single specimens, but none was shown in the green and grey classes. The best white edge was The Miller (Douglas). There were also several selfs, but no award appears to have been made. The premier show Auricula was a plant of Shirley Hibberd, shown in his second prize twelve by Mr. J. Sargent.

#### ALPINE AURICULAS.

These made a fine display. There were several collections of twelve varieties, Mr. J. Douglas taking the first prize with a finely developed lot of plants, having Dunsford, Dean Hole, Urania, Duke of York, Firefly, and Teviotdale (Douglas), a beautiful white centre; Thetis, Ganymede, &c. Messrs. Phillips and Taylor, Bracknell, Berks, were second. They had, of golden centres, Mrs. M. R. Smith, Sol, Firefly, Kathleen, Niphetos, Duke of York, Admiral Togo, and Mildred, with white centre Purity. Mr. C. Turner was third.

There were eight exhibitors of six alpines. Mr. J. Douglas was again first with Rosy Morn, Urania, Firefly, and Duke of York; Messrs. Phillips and Taylor were again second; Mr. Price, Eckenham, was third.

Mr. Price came in first with four alpines, all very fine, the gold centres Urania, Sunset, Duke of York, and a seedling; Mr. R. Holding came second, and Mr. Martin R. Smith was third.

The best gold centre was Charmer, from Messrs. Phillips and Taylor; Mr. Hampton was second, and Mr. Price third.

White Centres.—Mr. Purnell-Purnell was first with Mrs. H. Turner, and Messrs. Phillips and Taylor were second with Thetis.

Premier alpine.—This was Teviotdale, a beautiful pure white centre, shown by Mr. J. Douglas in his first prize twelve.

#### SEEDLING ALPINES.

The best gold centre was Mabel of the Manor, from Mr. R. Holding, Messrs. Phillips and Taylor coming second with an unnamed seedling. Messrs. Phillips and Taylor had the best white centre, staging an unnamed seedling; Mr. C. Turner was second, also with an unnamed variety. Mr. J. Douglas's silver medal for six seedlings raised from seed supplied by him was won by Mr. R. Holding with unnamed varieties.

Mr. J. Douglas was first and the only exhibitor in the class for fancy Auriculas.

#### SPECIES OF PRIMULAS.

There was but one exhibitor of twelves in Mr. Purnell-Purnell, and he had fine masses. There was no entry for six species. Boxes and baskets of species and varieties were admirably shown. Mr. J. Grandfield, Hayes, was first with a very fine collection, thoroughly and admirably grouped; Mr. Purnell-Purnell came second, also with a very interesting collection; and Mr. J. H. Handsworth was third.

Fancy Polyanthus.—These were very finely shown in huge specimens by Messrs. S. Mortimer, Farnham, and J. Douglas; Mr. R. Dean was third. With single specimens Mr. P. D. Williams, St. Keverne, came first with a very fine dark variety, Mr. Mortimer coming second and third with a yellow and a rose-coloured variety.

Primroses.—With twelve Primroses Mr. J. Douglas was first and Mr. R. Dean second, Mr. P. D. Williams coming first and second with single specimens, being first with a large crimson and second with a white. Double Primroses in sixes were not represented.

Polyanthus, gold-faced.—With three varieties Mr. G. W. Bentley, Stakehill, came first with strongly-grown and finely-bloomed plants of Sarah Holden, a fine new black ground; George IV., and Middleton Favourite, red grounds. Mr. R. Dean came second with Lancashire Hero and Tiny black grounds, and Middleton Favourite, red ground. The Misses Hopkins, Knutsford, were third. With single specimens Mr. Bentley was first with Sarah Holden, and second with Mrs. Brownhill, Mr. R. Dean coming third with Middleton Favourite.

Groups of Primrose and Polyanthus made a very fine display. Mr. S. Mortimer came first with a brilliant lot of fancy Polyanthus; Mr. J. Grandfield was second, also with a fine lot, and Mr. F. H. Barnard, Bedford, third.

# THE GARDEN

No. 1693.—Vol. LXV.

[APRIL 30, 1904.]

## WILD FLOWERS FROM SEED.

THE extinction of our rarer British plants is a subject which is exercising many minds at present, and not a moment too soon. A remedy which concerns the gardening public, who sometimes infringe the laws of property in this direction no less than the offending vagrant, may be suggested.

Many of us derive much enjoyment from collecting seeds of unfamiliar plants which we may happen to come across in our travels, and how many happy memories of scene and circumstance are revived by plants so translated to our gardens which otherwise might never be recalled. Many a waif and stray of this kind, made priceless by association, has found a home in our own garden. There are young fan Palms raised from seeds picked up in the exquisite cloister of St. John Lateran; Coluteas from a single inflated pod left hanging after wintry wind and rain, and spied and brought back from Hadrian's Villa; there are tall Campanulas whose seeds ripened in alpine meadows; and bright rosy Pinks whose progenitors, let us hope, still adorn their native sunny rocks. It was pleasant rest work to sort and label such treasure-trove when the day's expedition was ended.

Why should not holiday makers do the same when they happen to meet with some of the less-known British plants in vacation rambles? Whether we go north, south, east, or west, some local plant is sure to attract our attention of which it would be worth while to gather ripe seeds, if they are to be had. It may be a few heps of the tiny Burnet Rose (*R. pimpinellifolia*) from Welsh sand-dunes, or orange berries of Sea Buckthorn (*Hippophae rhamnoides*) from the East Coast, or spiked beaks of blue Meadow Crane's-bill (*Geranium pratense*) from some Scotch "den," or pods filled with shining black beads of the little grey Cornish Squill (*Scilla verna*). The list is too long to be here given of native plants which might worthily fill some corner or another of our gardens; but how much better to transport them by means of seed than to tear or dig up roots, burdensome to carry away and all uncertain in their prospect of ultimate establishment.

Of all native plants none are more dearly coveted by the ordinary tourist than Ferns. Now one of the most interesting of garden

operations is the raising of Ferns from spores. To collect the spores is a simple matter. A few envelopes to contain separate fragments of fronds in fruit of any species which may please our fancy will furnish all needful preparation. An inexperienced eye will not find it hard to judge whether the sori at the back of the fronds are ripe and fit. In some species, when ready, they are of a bright golden brown; in others so dark as to be almost black. Taken in right condition, as they are almost sure to be in autumn, these, if rightly treated, will give a vast deal of pleasure, and may lay the foundation of a life-long interest. To raise Ferns is not difficult, but it requires patience. Some well-crooked pots with a layer of moss laid over the broken sheards to keep the drainage free, some finely-sifted, sandy loam and leaf-mould or peat, mixed with small fragments of stone, some saucers for the pots to stand in, to be filled now and then with water to give just sufficient dampness to the soil, and some squares of glass to place over the rim of the pots, will constitute all the garden ground that is requisite, and space for these small needs may generally be found even in a London lodging. A Wardian case of the simplest construction is, of course, a boon, but it is a luxury that may be dispensed with for hardy Ferns. The brown powder which we find staining the inside of the folded packet we have so carefully brought home must be dusted thinly on the surface of the damp soil and covered with glass, and in due time, with care and patience and gradual potting of the young Ferns as they require it, we shall reap our reward. The *Osmunda* that we came upon suddenly in some marshy Devon wood; Parsley Fern from the Lake District, perhaps, though that is difficult, and would be a triumph of skill; pale fronds of the brittle Bladder Fern (*Cystopteris fragilis*) from a Yorkshire haunt; quaint scaly *Ceterach* from Somersetshire dykes—how pleasant to think that we have enriched ourselves with all these mementos of delightful holidays gone by, without having robbed one single spot of even a solitary root of its choice local treasures.

In gathering seeds we need not be deterred by the fear that we may have no immediate opportunity of sowing them ourselves. Those germs of plant life will be exceeding precious, we may be sure, in the eyes of some gardening friend whose lot is more circumscribed than our own. But the length of time during which seeds and Fern-spores will retain their vitality is a most interesting point to test by personal ex-

periment. It is always well, in packeting any kind of seed, to write upon it the date of gathering. We may be fairly safe in concluding that most leguminous seeds will retain their germinating power for several years, and seeds of many crucifers will come up well after an interval of two or three seasons. Some grains of *Biscutella lævigata* collected in 1901, and sown less than a fortnight ago, sprang up freely in a week. Seeds of *Gentians*, *Primulas*, and *Anemones*, on the contrary, should be committed to earth as soon as possible after they ripen, otherwise germination is greatly retarded, though their vitality may not be destroyed. The contents of one ripe capsule of *G. acaulis* sown as soon as gathered will yield hundreds of seedlings, which come up as freely and almost as quickly as Cress; but keep the pod over till the spring and it is then more than likely that not a seedling will appear till a year has passed.

Seeing, then, that rare or beautiful plants raised from seeds harvested personally, either abroad or within the compass of the British Isles, do possess a peculiar value, it is not untimely, perhaps, to remind all garden lovers of this means of adding to their treasures. It is fervently to be desired that seed packets, stowed away safely in hand-bag or valise, might by degrees take the place of the drooping, sorry-looking Ferns and plants which may be seen—on their way to almost certain doom.—attached to passengers' luggage at every railway station. At any rate, those of us who lament the thoughtless destruction of plants which takes place year by year, may set a good example ourselves, and also do something towards spreading amongst others the doctrine of perpetuation *v.* annihilation by the simple plan of gathering seeds and growing them at home, instead of dragging up and carrying off wholesale the roots of plants which are every season becoming scarcer in their native habitats.

## THE EDITOR'S TABLE.

### FLOWERING SHRUBS.

Mr. Beckett sends from the Aldenham House Gardens, Elstree, an interesting collection of hardy flowering shrubs. The varieties of *Ribes sanguineum* were of more than passing interest. The type is well known, but not so the double variety (*flore-pleno*), of which the flowers are quite double, each like a little crimson rosette, and produced thickly in the raceme. We hope to plant this bright *Ribes*; its flowers remain in beauty longer than those of the ordinary flowering Currant owing to this doubling. *Atrosanguinea* is well named; its flowers are richer in colouring than those of the

parent and borne as plentifully on the shoots. It is one of the richest in colour of all shrubs in flower now in the garden. *Carnea grandiflora* is very soft in colouring, but not weak; it is pink, as the name suggests, and the racemes are very large. Mr. Beckett sends two more *Ribes*, one the fairly well known *aureum* and the other *R. gordonianum*, in which there is quite an orange shading to the flower; it is very distinct and showy in the sun. This orange colouring is the result of its hybrid nature. It is a cross between *R. aureum* and *R. sanguineum*, and the influence of its parents is very distinct. We were pleased to see a flowering shoot of *Prunus triloba*. Of all its family this is the freest in bloom; the shoots are pink with colour at this time from the thick clustering of double flowers. The complete list of flowering shrubs sent by Mr. Beckett is as follows: *Forsythia suspensa*, *Azara microphylla* (deliciously scented), *Berberis dulcis*, *B. Darwinii*, *B. Aquifolium* (splendid for massing), *Amelanchier canadensis*, *A. vulgaris*, *A. oligocarpa* (little known but a fine kind), *Prunus triloba*, *Spiraea Thunbergii*, *Viburnum Tinus*, *Myrica Gale* (very sweetly scented and interesting), *Nuttallia cerasiformis*, *Amygdalus persica fl.-pl.*, *Prunus Pissardi* (magnificent as a specimen), *Ribes sanguineum albidum*, *R. s. carnea grandiflora*, *R. s. atrosanguineum*, *R. s. flore-plenum*, *R. aureum*, *R. gordonianum*, *Andromeda floribunda* (fine for massing), and *Magnolia stellata* (early and very free; a beautiful dwarf shrub).

#### DAFFODILS FROM IRELAND.

Mr. Hartland sends from Ard-Cairn, Cork, many varieties, with the following note: "These are my own introductions except the two *Leedsii* forms. Spread Eagle is a yellow seedling from princes and Emperor, or it may be *maximus*. It is a very strong grower, and has bluish green leaves." Spread Eagle is a flower of rich yellow colouring, and suggests the cross indicated by Mr. Hartland. From the specimens sent it is strong, free, and quite distinct. White Wings is of almost white colouring, trumpet and segments the same, a very tender shade. Buttercups is a rich yellow trumpet, and *Maximus superbus* from the flowers before us is a large form of this beautiful Daffodil, and with the same intense colouring. Other varieties sent from Cork were Jeannie Woodhouse, Mr. J. Berkeley, Lorna Doone, Leeds Mrs. Langtry, and Leeds Duchess of Westminster, which are the most charming of their race.

#### RUBUS SPECTABILIS.

The Misses Hopkins, Mere, Kntsford, Cheshire, send this *Rubus*, which has been in flower with them for some time. The blooms, produced singly, are large and a purple-red colour. It grows vigorously, and has stout thorny shoots and large leaves, much like those of our native Brambles. An excellent plant on steep stony banks or rough woodland corner.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- May 1.—Dusseldorf International Horticultural Exhibition opens.  
 May 3.—Royal Horticultural Society's Drill Hall Meeting; National Amateur Gardeners' Association's Meeting.  
 May 11.—East Anglian Horticultural Club's Meeting; Royal Botanic Society's Horticultural Show.  
 May 17.—Royal Horticultural Society's Drill Hall Meeting.  
 May 19.—Bath and West of England Horticultural Show at Swansea (five days).  
 May 25.—Edinburgh Spring Show (two days).

**Royal Horticultural Society.**—The next fruit and flower show of the Royal Horticultural Society will be held on Tuesday next,

in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. At three o'clock a paper on "Enemies of the Apple tree," by M. Charles Ballet, will be read. At a general meeting of the society held on Tuesday, the 19th inst., 51 new Fellows were elected, making a total of 498 elected since the beginning of the present year.

**National Auricula and Primula Society.**—Award of medals for points.—The large silver-gilt medal of the Royal Horticultural Society given by J. Douglas, Esq., for highest aggregate number of points in classes 1, 2, 5, 6, 7, 8, 14, 15, 17, 18, 19, and 22 was won by Mr. Sargent of Stoke D'Abernon. The silver medal of the Royal Horticultural Society, also given by J. Douglas, Esq., for highest aggregate number of points in classes 3, 4, 5, 6, 7, 8, 14, 16, 17, 18, 19, and 22 was awarded to Mr. Price, an amateur from Reading. The above awards could not be verified in time for the general report on Tuesday, the 19th inst.

**The National Rose Society's forthcoming shows.**—We have received the schedules of the summer show of the society, to be held in the Temple Gardens on Wednesday, July 6 next, and of the autumn display in the New Hall of the Royal Horticultural Society on Tuesday, September 20. We hope both will receive the support of all who love the Rose. We predict a great success for the autumn show, when the majority of the Tea, Hybrid Tea, and China Roses are in their richest beauty. It is pleasant to notice that those responsible for these schedules have not forgotten that in these days visitors enjoy something else than lines of green boxes. In many of the classes the flowers must be exhibited in glasses only.

**A beautiful race of Polyanthuses.** Mr. Crook sends from the Forde Abbey Gardens, Chard, flowers of his beautiful varieties of Polyanthus which received an award of merit at the recent exhibition of Auriculas and Primulas in the Drill Hall, Westminster, a very bright form of *Primula obconica*, named *rosea*, being shown on the same occasion. At Chard the Polyanthuses are planted in the grass, and groups planted six years ago are now very vigorous, and are flowering abundantly. The colours are very bright. There are soft yellow, rich orange, and pure white, but it is the warm reds, crimsons, and purples that make this strain so welcome. The purples are not magenta, but of deep and telling shades.

**Spring flowers at Croydon.**—The Croydon society is carrying on useful work among amateurs and others interested in gardening. The aim of the society is to create general interest in the cultivation of plants for windows and gardens. The exhibition of spring flowers held, at the Art Galleries, Park Lane, on the 20th inst., was most interesting, the promoters carrying this out on rather different lines to those ordinarily adopted. No prizes were offered and no entrance fees charged, the result being a well-filled show-room, and no disappointments in regard to one being placed before another in the prize list. It seems to us that we might often get better displays at local flower shows if some other system of awarding prizes could be adopted. There are many who value the prizes, or, rather, the distinction of gaining them far beyond their ordinary worth, but the greatest misfortune is that at almost every show there are those who think the judges have not placed them in their proper position, and this often leads to some unpleasant arguments. The entire absence of any grumbling at this meeting seems to point to the fact that the "no prize" system is a good one, and the beautiful display made was evidence that a good show may be got together without offering prizes. Among the principal exhibitors were Mr. F. Oxtoby, gardener to J. J. Reid, Esq., who had some fine plants of *Asparagus Sprengeri* in baskets; also *Cineraria stellata*, *Mignonette*, *Azalea mollis*, and other good things. Mr. W. Bentley, gardener to G. Curling, Esq., Elgin House, Addiscombe, had a pretty group in which *Primula obconica*, *Alonsoa*, and *Begonias* were good. Mr. A. Heritage, gardener to S. Ellis, Esq., Thornley, South Norwood, had a nice group, consisting of *Cinerarias*, *Azaleas*, *Callas*, *Roses*,

and other plants. Mr. A. Edwards, gardener to J. Pascall, Esq., Ambleside, Addiscombe, showed some large, well-flowered plants of *Cineraria stellata*. Mr. W. A. Cooke, gardener to Colonel Simpson, Shirley Park, had a collection of flowering and foliage plants, including *Amaryllis*, double pink *Petunias*, *Narcissus*, *Azaleas*, and *Arum sanctum*, the odour of which was anything but pleasant. Mr. D. J. Ricketts, gardener to F. R. Docking, Esq., Grafton House, Sydenham, had a group of *Primula obconica* in distinct shades of colours, the plants being compact and well flowered. Mr. B. Acock, gardener to R. A. Laing, Esq., also showed this *Primula* well, and *P. verticillata*. Mr. A. Barlow showed several plants of a very good rich crimson Pansy, with a well-defined yellow margin. Mr. C. A. Blogg, of South Croydon, had an interesting collection of Cacti, including some rare sorts. Of trade exhibits Messrs. Bath, of Wisbech, made a big display of Daffodils, many of which were new or rare. Mr. J. R. Box showed Daffodils, Hyacinths, the new *Fritillaria inodora*, and a good collection of rock plants. Messrs. Cheal and Sons also had a collection of rock and alpine plants, backed up with larger hardy shrubs. Mr. Thomas Butcher had a group of miscellaneous plants and cut flowers. Mr. W. Fourny made up a pretty group, which included zonal *Pelargoniums*, *Cinerarias*, and a variety of other useful flowering plants. Mr. E. Kromer had plants of *Mycosotis stricta*—a very pretty variety—and a fine specimen of *Pteris Childsi*. Messrs. Peed and Sons had a large collection of rock plants and a basket of *Saintpaulia ionantha*, and Mr. T. W. Shrubshall had a miscellaneous group. The ball was well filled, but not over-crowded, and the committee deserve praise for getting together such a good display.

**1903 and the Daffodils.**—I am glad to say that in spite of the abnormally wet and sunless weather of the past year, and the somewhat gloomy forecast of Mr. Goodwin in THE GARDEN of the 16th inst., the Daffodils in this part of Kent have been exceptionally good this spring. Mine were never so glorious, and I have seen some splendid displays in neighbouring gardens. I see also that at the Plymouth show on the 12th inst. the entries were numerous and of high quality. So it would be interesting to learn how other districts have fared, and how far 1903 has influenced the quality and quantity of the blooms throughout the kingdom. From the earliest minimus to the unexpanded forms of poeticus there have been no failures in my small garden, and I hope many others have had the same experience. I may mention that since I wrote the notes on *pallidus precox* in THE GARDEN of the 16th inst., describing a triple-headed bloom of that species, I have had a fasciated head of *cernuus* with no less than four flowers and a leaf in combination, while on the same clump was a double-headed bloom as well.—S. G. R., *Yalding*.

In THE GARDEN of the 16th inst. Mr. Goodwin of Kidderminster writes in Daffodil notes "that the only Daffodils available for cutting on Easter Day (in the open) were *N. pallidus precox*, *N. obvallaris*, and *N. telamonius plenus*. I have for two or three years grown *N. Ard Righ*, and found it very satisfactory for early blooming. Last autumn I planted 100 new bulbs of this variety, and on Easter Day they were all in full bloom, having begun to open the Thursday previous. I enclose a photograph taken by my son, a school-boy, of one of the groups. I grow at present only *Ard Righ* and *N. Horsfieldi* in quantity. Both do well in this town garden, but *Ard Righ* was in bloom this year exactly a fortnight before the first flowers of *N. Horsfieldi*.—(Mrs.) W. DUGGAN, *The Downs, Atrincham, Cheshire*.

**"In Cyderland,"** a musical play written by Mr. R. Carey Tucker and composed by Mr. Edward Sherwood, will be produced in the Cripple-gate Theatre, Cripplegate Institute, next Wednesday, with the full orchestra of the "Hurst and Son" Musical Society. This note will interest horticulturists. Mr. Sherwood is a son of Mr. N. Sherwood, and it is interesting to know that the majority of the performers are members of this famous firm.



**To encourage window decoration.**

There has lately been established in Paris an association for the encouragement of window gardening and a love of flowers and plants. This new society hopes to distribute to schools, institutions, &c., seeds and plants, in order that dwellers in even the most modest house may enjoy the pleasures of a garden.

**Lysichitum camtschaticense.**—A specimen of this showy and interesting genus of Araceæ is now flowering freely in the Himalayan house at Kew, where it makes a striking object among other marsh-loving plants which surround the margins of the two rocky pools. It is also to be seen among other swamp plants in the rock garden, but in this position it is not so vigorous as it is indoors. *Lysichitum* is a monotypic genus and is very widely distributed, being found in various parts of Northern Asia, North America, and Japan. The Kew plants were sent by Mr. James Anderson from British Columbia in 1901, and last year, when they flowered well for the first time, a figure was prepared for the *Botanical Magazine*, t. 7937. When under natural conditions it is said to vary considerably in size, sometimes being found but 1 foot in height, while at other times it is thrice that size. The leaves are very handsome, being from 1½ feet to 3 feet long, and from 6 inches to 9 inches wide. The inflorescence is thrown up to a height of 1 foot or 1½ feet, the spadix being from 4 inches to 6 inches long. The spathe is the attractive part of the inflorescence, being bright yellow in colour, and 6 inches or so long by almost the same in width. The base of the spathe has a curious way of clasping the stalk of the flower-spike, the sheath being several inches long. Altogether it forms a very striking and interesting plant, and is worth the attention of plant lovers.—W. D.

**Rhododendron forsterianum.**—Among the various hybrid Rhododendrons that need in most parts of the country the protection of a greenhouse, those of a white or very light tint (exclusive of the members of the Javanese section) greatly preponderate, and that under notice forms no exception to the rule. Though not so free in a small state as some of the hybrids claiming parentage directly or indirectly from *R. ciliatum*, it is in some respects the finest of all the white-flowered Rhododendrons of this class, being remarkable for the large size of its flowers. It was raised many years ago by Mr. Otto Forster, of Lehenhof

in Austria by fertilising the flowers of the Moulmein *R. veitchianum* with the pollen of *R. Edgeworthii*, a native of the Himalayas, and a species largely used by the hybridist in the production of many well-known forms. The flowers of *R. forsterianum*, which are borne in open clusters, are individually large, pure white except a yellowish stain at the base of the upper segments, while the edges of the petals are prettily crisped. In this respect, however, there is a certain amount of variation, probably owing to more than one plant having been raised from the same cross. The Moulmein *R. veitchianum*, above alluded to as one of its parents, differs widely in the fringing of the petals, some having this feature very pronounced, while in others they are quite smooth. To this last the varietal name of *levigatum* has been given. As a rule, the smooth-edged forms are more bushy in habit than the very crisped ones.—T.

**Prunus subhirtella.**—This is one of many Japanese trees which have been sent to this country within recent years, and which add considerably to the beauty and interest of our gardens. Of the various Plums and Cherries it is one of the rarest, being in cultivation in only a few places. At Kew there are several plants, the largest one being on the east side, near the north end of the Pagoda Vista. This particular specimen was sent to Kew as a small plant in 1895 by Professor Sargent of the Arnold Arboretum, and it flowered the following year, a figure being prepared at that time for the *Botanical Magazine*, t. 7508. It is stated to be found wild in the mountains of Nippon, but it is cultivated in various parts of Japan. When mature it forms a small tree with a dense head of somewhat twiggy branches. The leaves are 2 inches to 3 inches long, and prominently nerved, the nerves being in twelve or fourteen pairs. The flowers are borne from the buds of the previous year's wood, and are usually in threes. In colour they are pale pink, and in size nearly 1 inch across. It has been tried at Kew for forcing with marked success, the colour being then nearly white. Cuttings of soft wood have been found to root well, a thing which is not of frequent occurrence in the genus *Prunus*. Early April is the time of flowering out of doors.—W. DALLIMORE.

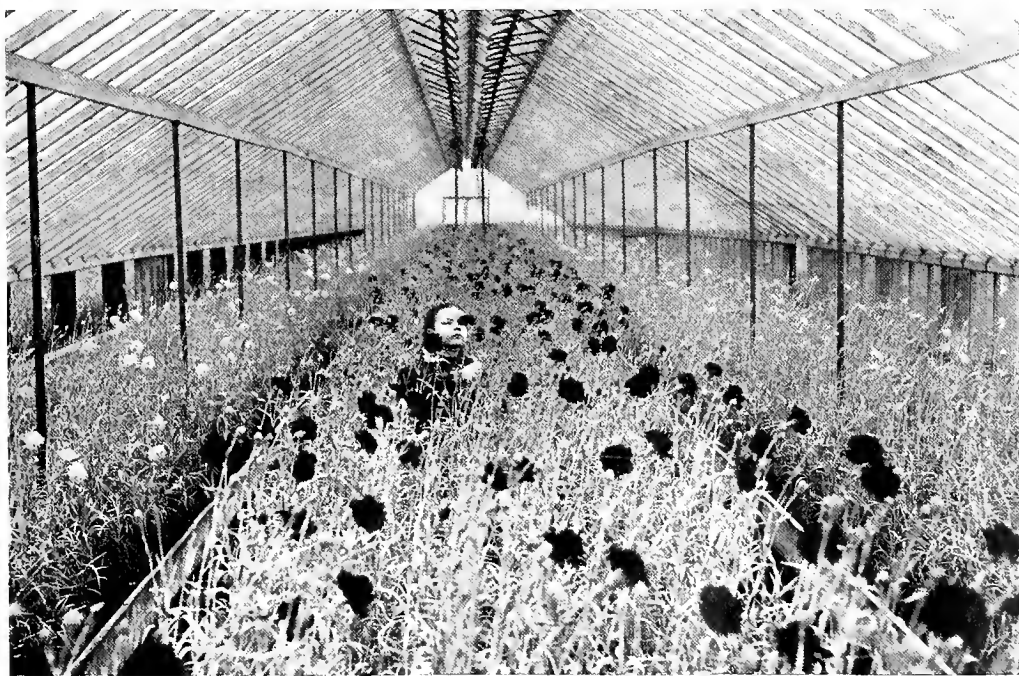
**Lilium candidum.**—The uncertainty of success in the culture of the Madonna Lily, even after the greatest care has been taken, has become proverbial. This Lily seems to delight in nullifying all attempts to unravel the mystery of its require-

ments. When by all known canons of gardening it ought to succeed it does not, and when planted without any thought as to position or soil it proves a surprising success. There surely must be some soil and position that it prefers, and in which it will thrive best, if the bulbs are free from disease. I am led to write this note from having recently seen in the small front garden of a villa in the suburb of a Berkshire town a row of plants of *Lilium candidum*, whose equals, so far as vigour and healthy foliage are concerned, I have not seen for many a day. The front of the house faces south, and the narrow border where they are planted, backed by a low wall, is on the left of the path leading to the door of the house, and therefore has an easterly exposure. They would receive the full sun until about eleven o'clock, and after that time the border would gradually fall into shade. Some time ago I happened also to plant some bulbs of this Lily in an exactly similar position, and in ordinary garden soil, which, however, is rather gritty, and they, too, have done remarkably well. They are now making strong growth, and give every promise of flowering successfully this season. If one may venture to deduce anything from these two instances, it is that *L. candidum* appreciates the morning sun, a fairly sheltered border, but is indifferent as to the soil, that is providing it is not below the quality of that in an average garden. Grit or sand, which helps to keep the soil open, is also probably an advantage.—A. H. P.

## AMERICAN CARNATION CULTURE.

THE Carnation stands second only to the Rose in extent of culture in America, and, without available statistics, it may still in truth be asserted that millions are grown annually, some enormous establishments being devoted solely to Carnations, and anyone of these having an annual output of flowers running into hundreds of thousands. The varieties are all of American origin, and belong to the tree or perpetual-flowering race. Their progenitors were French varieties of the Alegatiere strain, imported about thirty-five years ago, and from these has been evolved a race of winter-blooming Carnations surpassing anything in Europe. Three years ago I visited some of the great Carnation gardens in the South of France, where the culture is extensive and well done, but the varieties are poor, splashed or striped, and washy in colour, and most of the flowers bursters of the worst description. In those same places it is reasonable to assume our American Carnations should do splendidly.

In England it is doubtful if ever they will show their full beauty and freedom from lack of sunshine in winter. At the Drill Hall in February of this year I saw there exhibited flowers of three of our Carnations, Mrs. T. W. Lawson, Maceo, and The Queen, and it is no exaggeration to say I would not have recognised them only for their labels, although I grow all three, and the flowers there shown would not be accepted as a gift by even the street flower vendors of New York. This fact is not cited in a derogatory sense, but to show the effect of conditions and environment. We can do nothing here with the English Malmaisons, nor with the grand outdoor varieties you have, and similarly our Carnations raised and grown continuously beneath bright winter skies make a sorry display of their merits under the adverse conditions of the English climate in winter.



CARNATIONS IN AN AMERICAN GARDEN: THE DARK VARIETY IS HARLOWARDEN AND THE LIGHT ONE IS HER MAJESTY.

The varieties most favoured here are selfs of clear, distinct colours, from white through all shades of pink to rose, red, and dark crimson. They must have good stems from 18 inches to 30 inches in length, and no toleration is shown to "bursters," as a variety that bursts its calyx is useless for the cut flower market. Great improvements have been made in our Carnations during the last few years, and the popular and profitable varieties of to-day are giants in comparison to those of ten years ago. A great deal of this is due to the American Carnation Society, admittedly one of the best and most active societies we have. It meets in February or March of each year in one or other of our large cities and holds a large exhibition. The best testimony to its efficiency is the extent to which raisers seek to secure its certificate of merit by exhibiting their new varieties at its annual meetings. It would be difficult to name a single variety of any prominence that had not had official endorsement prior to its distribution. The scale of points by which they are judged is as follows: Colour, 25; size, 20; stem, 20; form, 15; substance, 10; calyx, 5; fragrance, 5. A variety must score 85 out of the total of 100 in order to obtain a certificate.

#### CULTURE.

The cultural methods pursued are practically the same everywhere, in small private gardens as in the great commercial places, and that is the Carnations are planted out upon the greenhouse bench in 4½ inches to 5 inches of soil. The young plants are all propagated from cuttings. January and February are the two best months for propagation. Strong young shoots at the base of a flowering stem are chosen and inserted closely in a bed of 4 inches of sharp sand in a propagating house, which is kept as near as possible at a temperature of 55°. With ordinary care and attention every cutting roots. In some commercial propagating houses batches of 100,000 may be seen, out of which not more than 2 per cent. have failed. In about four weeks the cuttings are sufficiently rooted, and are then taken from the sand and planted in light rich soil in flats, and placed in a light airy house or planted on the benches. This applies to those growing large numbers, as the small grower would pot them up. They are encouraged to grow sturdily in a temperature of 50°, and gradually hardened off to prepare them for planting out. Early in May they are planted in the open ground in rows, having a space of at least 18 inches between to admit of surface hoeing. The main shoot is pinched to induce side breaks either before or after planting, as the strength and condition of the plant warrants, and a second or third pinching may be given to induce a bushy plant having a number of shoots that will later grow up and flower.

Whilst the young plants are in the field the houses are prepared for their reception. The old plants that have occupied the benches during the winter are thrown out about the end of June, the benches being thoroughly cleaned, repaired if necessary, and given a good coat of lime-wash. They are then refilled with fresh soil, the preparation of which is made in advance. Small growers usually make up a compost heap late in the previous summer, using turf, if procurable, and cow manure in proportion of about four of soil to one of manure. Many of the large growers have no turf available, but take the top soil of their land, and previous to winter give it a heavy dressing of stable manure and plough this in. In spring the ground is again manured, usually with bone, and wood ashes are much in favour, or in some cases lime only is used and ploughed

two or three times during the early summer months, then carted to the houses and wheeled in upon the benches.

A critical time for the grower is when the plants have to be transplanted from the field to the house. The time varies according to the date at which it is desired to have flowers, but of late, and independent of this, growers are planting earlier than formerly. Some commence in July, and the majority now plant in August. The plants are carefully lifted, taken to the house and planted upon the benches at about 1 foot apart, the distance varying a little either way in accordance with the growth of the variety. Care must be exercised not to plant them deeper than they were originally, and as soon as planted they must have a thorough watering. A light shade is given for a few days, a minimum of ventilation, and a moist atmosphere maintained till new root growth is apparent, when the shading is gradually removed and additional ventilation given. When once established they will enjoy all the light and air that can be given, with a night temperature of 55° and a rise of 10° by day. Some very successful growers are now experimenting with a view to obviate planting in the open ground. They have cleared out their houses at an earlier date, and planted the young plants direct upon the newly filled benches, and they have shown wonderful results during the past winter.

According to the date of planting cutting commences. The early flowers are a little short in stem, but from November to June long-stemmed flowers are in the market in large quantity.

A. HERRINGTON.

*Madison, New Jersey, U.S.A.*

## THE FLOWER GARDEN.

### LILIUM AURATUM AND LILIUM CANDIDUM.

SO much is known and has been written about the culture of Lilies that it seems almost superfluous to write more concerning the commoner ones. Of *L. auratum* there are several varieties, including *Platyphyllum*, *Parkmanni*, *Rubro-vittatum*, *Wittei*, &c. The most suitable soil for them is two parts peat, one part sea sand, sea sand being preferable as it holds moisture, and this Lily, in particular, likes a damp situation. Manure should never be dug in with the soil, though after the bulbs are well established a top-dressing of it, with road scrapings and dry clay broken small, is desirable. It is of importance to give *L. auratum* a sheltered position, nothing being so fatal as wind, or even draughts. They must be staked, their slender stems alone not being strong enough to support the cluster of large blossoms which a well-grown bulb develops. They also need to be screened from hot sun. After removing any outside decay from them, freshly-imported bulbs should be carefully stored in moderately damp Coconut fibre till they lose their shrivelled appearance and roots are on the point of starting from the base. They should then again be carefully cleaned of all decay and the bulb surrounded with a little sand when planted. I know a garden in Cornwall where, in a sheltered position, there was a magnificent clump of this handsome bulb, the plants being 14 feet to 17 feet high, bearing an immense number of blossoms on each stem and scenting the air far and wide. *L. candidum*, though the most common and hardy of all the Lilies, is uncertain. Under what appear highly favourable circumstances it sometimes becomes small, poor, and attacked by a scaly disease, which renders the leaves limp, spotty, and unsightly, and eventually kills the bulb. Again, sometimes neglected and uncared for it will flourish abundantly, glorious in its snowy white-

ness and delicious scent. This Lily requires a heavier soil than *auratum*, and as long as it keeps healthy should never be replanted or disturbed. A striped variety, *Aureum marginatum*, is worth growing.

A. G. GODMAN.

### DOUBLE PRIMROSES.

I FEAR very few who would like to grow double Primroses could give to them the generous treatment which Mr. Jenkins mentions he gave to the double crimson in days gone by. What is noticeable is that whilst some twenty to twenty-five years ago double Primroses were fairly common in gardens in the South, now they are rarely seen. The double white and the lilac, always the best growers under ordinary conditions of culture, used to be grown in quantity in some of our Middlesex market gardens for the production of flowers for bunching, but they seem to have entirely disappeared. Possibly that is due to insect pests, which prey upon the leafage in summer, and when the foliage is once destroyed the crowns are incapable of reproducing other than very weak leaves later, and no flowers. Whenever a double Primrose is seen at the Drill Hall now it is always a weakling grown in a pot or pan and housed in a cold frame. Such plants do not represent what double Primroses ought to be; indeed, when well grown and flowered, as we used to see them many years ago, they were very beautiful. We had at one time in commerce fully a dozen distinct varieties, white, lilac, salmon, sulphur, large sulphur or yellow, purple, crimson, bluish, and one or two others I cannot just now name. Even as long ago as this it was found most difficult to keep the plants alive during summer. Even very robust plants obtained from Ireland or Scotland in the autumn could hardly be induced to live even with the greatest care in watering, shade, and generous culture. These Primroses need a cool, humid atmosphere, such as can be found near the sea coast or in Ireland or the North, but not in the parching South. The tendency on the part of the Primrose to double seems to have died out, so also is it with the allied *Polyanthus*, in which we saw a good deal of doubling tendency some years since. Doubling was also a marked feature thirty to forty years ago in the Chinese Primrose, but that facility to thus change from single to double seems to be exhausted. Semi-double flowers, of which there are so many and so fine, do not develop into actual infertile doubles as the earlier singles did. All double Primroses originated evidently from thrum-eyed singles. The anthers changed from bearing pollen cases into petal-producing organs, and they will also revert. I have noticed that this is the case with both white and lilac varieties; indeed, we once had in commerce a single-flowered selection under the name of *Lilacina*, one of the most beautiful singles named. *Auriculæflora*, rich crimson, with thrum eye, well known in the early seventies, was, I believe, a reversion from the double crimson.

A. D.

### POLYANTHUSES IN GRASS.

CONSIDERING what a simple charm there is about Primroses blooming on a grass bank it is a wonder that more people do not adopt this method, taught by Nature, of planting *Polyanthuses*. As a rule, beds and borders are considered to be the orthodox places for these delightful spring flowers, but in no situation, I think, are they so effective as when springing up from a bed of green turf. This mode of culture has been adopted with charming results by Mr. A. Ward in the gardens at Godinton Manor, near Ashford, Kent, a quaint Elizabethan mansion belonging to Mr. Ashley-Dodd, and I do not remember ever seeing a prettier picture in the spring. The *Polyanthuses*, all seedlings of a good strain, were planted in the grass under a belt of tall trees last season, where they have stood the winter, and when I called a short time ago they were blooming in a manner which proved how much they enjoy the conditions under which they are growing. I understand the plants will be left where they are to become naturalised. It is generally admitted that the most effective way of

growing Daffodils is in grass, and in the Polyanthus we have a plant which makes a delightful companion to the above, for no combination could well be more charming than the two growing together as I saw them at Godinton Manor. Mr. Ward raises the stock from seeds saved from his own plants. Speaking of Polyanthus, I remember seeing a fine display of these plants a few years ago in Lord Burton's garden at Rangemore, near Burton-on-Trent, and in this case a happy combination was formed with the above plants grown with Forget-me-Nots. S. H. H.

## MOUNTAIN FLOWERS OF NEW ZEALAND.

(Continued from page 285.)

**D**URING the night the mist had cleared once or twice sufficiently to give us a transient glimpse of the Southern Cross, which appeared in a part of the sky where, according to our reckoning, it had no right to be. We then realised that we had been travelling south instead of east, so we decided to abandon the gully we were in, which we feared would lead us into a rough, uninhabited tract of country. One of our number was very confident that he could pilot us out, so at four o'clock in the morning we started, steering by the sun. But the mist was as dense as ever, and we could only locate the sun by a lighter spot in the clouds by which we were enveloped, which had a nasty trick of disappearing, and when we saw it again it would be on the wrong side of us, whether a "false sun" or we had lost our bearings we could not tell; so up spurs and along ridges we wandered till about ten o'clock. Our leader was still hopeful, but at last we came to a place where we had been an hour or two before. Our leader was unwilling to admit such a possibility, but after a short discussion he was obliged to do so. There was no other course left but to follow downwards the first stream we came to, even if it led us far from our destination. At this point I threw away nearly all my plants, only keeping one or two of the lighter ones in my vasculum, and as I emptied the lunch basket I found a packet containing three very small sandwiches. The number fortunately agreed with that of our party, and they were speedily disposed of.

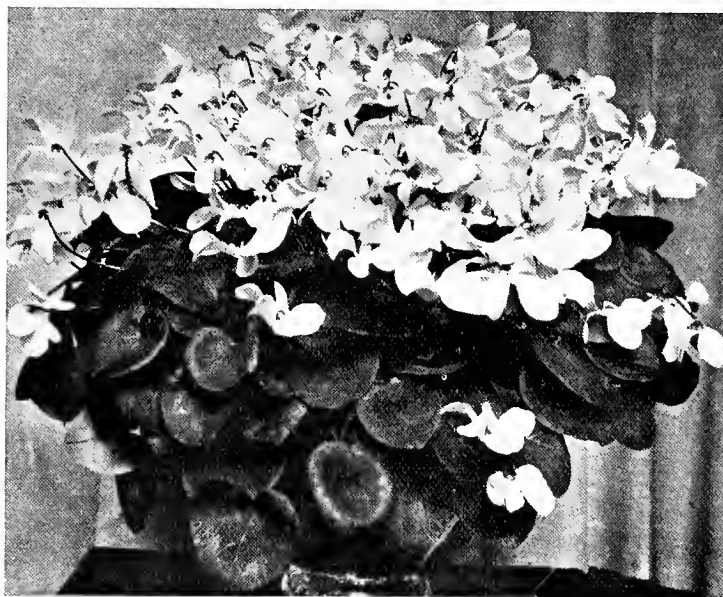
We carried our plan into execution, and, after finding a small stream, we followed it down till we got below the mist, but when we first saw the open country we failed to recognise any feature of it. However, we saw a distant hilltop which we knew, and so fixed our directions. After wandering amongst the lower spurs of the mountain for some time we at last got a glimpse of the Taieri river and some cultivated land, which told us exactly where we were. We gained the banks of the Sutton stream, a tributary of the Taieri, about two o'clock in the afternoon, but a stretch of low rocky hills was between us and our goal.

We were tired out and did not think we could reach the station homestead before night-

fall, so notwithstanding our anxiety that our friends should know of our safety we determined to rest for the afternoon and spend the night where we were. There was a shallow cave in a rock, which we made as level as possible with flat stones, on which we laid a covering of tussock grass, where we lay down in the hope of getting a little sleep while it was yet warm. In this we were none of us very successful. The afternoon wore away, as did the succeeding night, which we felt much colder than the preceding one, notwithstanding that we were better sheltered and our clothing was dry.

Four o'clock next morning saw us once more afoot, and we reached Gladbrook outstation a little after eight o'clock. Our first care was to send off a messenger to the nearest telegraph office with telegrams to our homes, and after a wash we sat down to breakfast, which we enjoyed as we had never done before.

I greatly regretted the loss of my plants, but I think my chief recollection is the keen gusto with which I supped a plate of porridge, which was food for the gods! We learned that parties



PERSIAN CYCLAMEN BUTTERFLY.

(Circumference 7 feet 3 inches, number of expanded flowers 150. In the garden of the Hon. Cecil Parker.)

had been out searching for us from the night before, and that others had started that morning, but none of them tried the southern part of the mountain, as the highest point lay to the northward of the spur we had ascended, and the summit is the usual goal of mountain climbers.

In due course we reached the homestead, and, catching the afternoon train, returned to our homes in Dunedin, none of us, fortunately, any the worse for our exposure or fatigue, to say nothing of our forty hours with practically neither food nor sleep.

The illustrations given of a few of the plants mentioned are from photographs by Mr. H. J. Matthews, the New Zealand State Forester, who was one of our party, and who is an enthusiastic cultivator of our mountain flora. Some were taken from his cultivated plants, others among the mountains.

A. BATHGATT.

Dunedin, January 30, 1904.

## THE INDOOR GARDEN.

### HARDY FLOWERING SHRUBS FOR FORCING.

**I** AM sure many of your readers will find a mine of information in the perusal of Mr. Townsend's notes (page 273) dealing with the forcing of hardy shrubs in early winter and spring, because a list is given of kinds which are by no means commonly used for such purposes. With forced shrubs many fail to get a useful and effective display of flowers after the first season's forcing, and this particularly refers to Lilacs. I suppose that the plants, which are forced this season, are not subject to the same ordeal within the next twelve months, but rather two sets of plants are provided, so that each obtains alternately a season's work and rest preparatory to forcing. A common experience is found in the comparatively poor growth following the forcing and cutting down after flowering. The shrubby Spiræas I find particularly useful, and with careful treatment after the cutting down they make bushes fit for forcing again within the year. The value of plants in small pots cannot be overlooked. Mr. Townsend omits from his exhaustive list a most familiar shrub, but possibly he may have done so on the score of scent, which some consider unpleasant, especially when confined in a dwelling room or conservatory, namely, the Mock Orange or Philadelphus. Some of these are strongly fragrant and quite unsuited to room decoration. The freedom of their growth and the readiness with which they will bloom in successive years when confined to pots makes them most desirable spring forcing flowers.

Everything depends on their summer treatment. It is not desirable to place such plants in the full sun with no protection to the roots and pots. Last year, wet and sunless though it was, our plants were partly plunged in the soil on a north border, yet despite the absence of sunshine and the extremely humid atmosphere due to the frequent rains, these shrubs flowered as well this April as when purchased from the nursery. The value of sunshine and its influence on wood ripening seems to me to be often over-estimated. A common complaint of the year 1903 was the prospective immaturity of flowering wood and a consequent paucity of blossom. The present outlook as regards flowering trees disposes most effectually of all such fears, for never were the

prospects more assuring. The lessons thus taught might well apply to forcing plants, deciduous or evergreen. If instead of standing pot-grown plants in sunny aspects more shady ones were sought in future, I feel sure a greater and a richer harvest of spring blossom would result. W. STRUGNELL.

### A REMARKABLE CYCLAMEN.

THE accompanying illustration shows one of a remarkable batch of Persian Cyclamen at present in flower in the gardens of the Hon. Cecil T. Parker at Eccleston Paddocks, and which were raised from seed sown in January, 1902. When the plant was photographed (February 27 last) it measured 7 feet 3 inches in circumference, and had 153 fully expanded flowers, 30 not quite open, and 25 had been removed previously. The variety figured is that known as Sutton's Butterfly. In these days of record-breaking it would be interesting to hear if there has been a larger or more floriferous plant of this variety grown. Mr. Raw, the gardener, is to be congratulated on his success with these plants. The Hon. Mrs. Parker takes a keen interest in gardening. N. F. B.

## TREES AND SHRUBS.

### HEDGES AND SHELTERS OF HOLLY.

OUR country is fortunate in having as a wild tree the most beautiful evergreen of Western Europe, and one denied to much of the country in Central and Northern Europe and a vast region in North America, where it will not withstand the winters. In beauty other evergreen Hollies are inferior to it, hence its berried branches are sent in quantities to North America at Christmas. In too many places in our country there is the unfortunate use of the iron fence, which has neither beauty nor endurance and is useless for shelter. A well-made live fence will last three times the life of an iron one; and of all possible living evergreen fences the best is Holly, in close but not stiffly clipped lines. Better still is the free unclipped Holly hedge, as it makes a fine shelter as well as a good background, of which there is a fine example above the kitchen garden at Batsford Park. In Warwickshire and other counties we have often seen it making as good a shelter round fields as any shed. Of the clipped Holly hedges fine examples are at Woolverstone in Suffolk. Where land is not valuable—either from its poverty, or elevation, or other reasons—it matters little whether the hedge is clipped or not, especially round woodland and for cutting off woods from pasture fields. For such a case the finest hedge is that of unclipped Holly, because then we get its fruit and protection and fine form. Such hedges might be either of Holly alone or mixed with Sloe or Quick.

Where from the nature of the soil it is not easy to raise Hollies from seed—as they should have friable open ground in the young state—it is best to buy small plants from the forest nurseries. The worst enemy of the Holly hedge is the rabbit. I have lost thousands of plants in that way, and although many places are not so much infested, still great care must be taken, or in hard winters the Hollies are sure to be destroyed, especially if newly planted. Where Holly comes naturally, as it does in many parts of the country, the destruction is not noticeable, except after hard winters, when I have seen even old woods of it destroyed. Being a close-growing shrub it forms a shelter for cattle, and as it grows much better than the Hawthorn under hedgerow trees it ought to be more often adopted for enclosing meadows and pastures. It keeps itself almost free from weeds, owing to the closeness of its branches at the bottom, and it is free from insects. Holly is found flourishing on dry gravelly land as well as on strong clay, but sand and sandy loam are the soils it delights in most. On flat ground the site intended for the Holly hedge should be trenched and manured before the time of planting, but the chief thing is to have the soil open and fertile, and nothing can be better as an addition than well-rotted farmyard manure; the same should be used for mulching after planting, but any mulch is better than none, even grass, or weeds, or litter. The ordinary raised bank made for fences in many districts of the south is preparation enough.

The distance between the plants should be at least a foot, and, if they are very bushy, 15 inches apart will be close enough. In order that they may stand firm and upright they should be trod gently immediately after the roots are covered. For the first two seasons the hedge will require no pruning, but after the third year such parts of the sides as become broad and irregular had better be clipped uniformly. I say clipped, meaning by the hedge shears, for the Holly is too thick and its leaves too numerous to allow of its being trimmed with a hedge-bill. The clipped Holly hedge should be perfectly straight, broad at bottom, and gradually taper to the top. The time for clipping is in October, and it is not necessary that it should be done more than once a year. In many cases this clipping may be necessary, but by far the finest hedge is the naturally-grown, unclipped one.—*Flora and Sylva*.

### AZARA MICROPHYLLA.

THIS makes a handsome evergreen shrub where it succeeds, but unfortunately it is rather tender, and cannot be grown except in favoured or sheltered spots. It is well worth a trial everywhere, as it is unlike any other hardy evergreen in appearance. It is a native of Chili, and makes a large branching shrub upwards of 20 feet in height, with a graceful appearance. The branches are flattened and spreading, and clothed with tiny leaves of a dark shining green. The leaves are alternate, about half an inch long, and oval in shape. At the base of each leaf is another tiny leaf rather less than a quarter of an inch long, which is turned back towards the base of the shoot and lying along it, and is probably a natural protection to the branches from the rays of the sun in its native habitat. The flowers are yellow in colour, very small and inconspicuous, and appear in April on the lower sides of the branches in the axils of the leaves. They are strongly scented like vanilla, and this is usually the first sign of their appearance, as they are easily overlooked. Though this plant is often badly cut by frost, it will stand 15° to 20° without injury when well established, but is rarely killed outright, as if cut to the ground it will come up afresh and grow freely the following season. It is easily propagated by cuttings or layers.

Bagshot, Surrey.

J. CLARK.

### MAGNOLIA STELLATA.

THIS handsome spring-flowering shrub is about a fortnight later in blooming this year, and so far has not been cut by frost, so that the full beauty of its lovely flowers has been seen. As a rule, the flowers get browned by frost as soon as they appear unless protected, which generally is not thought of until it is too late. It is an ideal shrub for the cold house, but is not amenable to pot culture for more than two years. As it does not grow very large it can be planted out in a cold house if room can be spared for it. All the Magnolias are difficult subjects to move in the open ground unless properly attended to, and *M. stellata* is no exception to the rule. If not planted permanently they should be moved every year, either in early autumn or late spring.

Bagshot, Surrey.

J. CLARK.

### AKEBIAS.

To Robert Fortune we are indebted for the oldest and best-known member of this family, viz., *A. quinata*; indeed, the second and only other species (*A. lobata*) is of quite recent introduction. The older species is more beautiful than the other, and, apart from its value as a hardy climber in most parts of the country, it is delightful in the cool greenhouse, where, especially in spring when laden with flowers, it is for some time very attractive. The slender, wiry stems wind round any support that is within reach, and failing this they twist around each other in such a way as to form a dense entangled mass. Under glass or in mild winters in the open ground it is evergreen, but even then a considerable number of young leaves make their appearance simultaneously with the flowers. These leaves, made up of five separate leaflets, are of a fresh bright green when first developed, but darken with age. The flowers, of which male and female ones are borne separately, are in slender pendent racemes, the male ones at the upper part and the females at the base. These last are by far the most conspicuous, being over 1 inch across and dark lurid purple. The male flowers are much smaller and of a lighter tint. In addition to its other desirable features, the flowers of this *Akebia* are very sweetly scented. This *Akebia* grows readily in any good garden soil, but the best display is when the plants are so situated that the shoots are thoroughly ripened during the summer. Propagation is readily effected by cuttings, or in the case of established plants some of the straggling branches will often root where they come in contact with the soil. The fruits, somewhat like an elongated Plum, are rarely seen, but a good specimen from Dorsetshire was illustrated in THE GARDEN, Vol. LX., page 352. *Akebia lobata*,

the second species, was long known to botanists before its introduction about ten years ago. In this the leaflets, which are borne in threes instead of fives, are larger and deciduous in winter. The flowers, too, disposed as in the preceding, are somewhat smaller, while the branches are thicker, and the long, rambling shoots have not that extreme flexibility which is characteristic of *A. quinata*. Botanically, the *Akebias* belong to the order Berberidaceæ, and, apart from the genus which gives its name to the said order, their immediate hardy relatives are *Holboellia latifolia*, *Stauntonia hexaphylla*, *Lardizabala biternata*, and *Berberidopsis corallina*. H. P.

## DAFFODILS FOR HOUSE DECORATION.

FEW plants enjoy greater popularity than Daffodils, and although there is but little need to plead for the use of these lovely flowers in our homes, seeing that for this purpose they are always welcome, yet at this season a few remarks on the subject may not be out of place. Ten years ago who could have dreamed that the Daffodil would have broken into such an exquisite range of colours as we now possess? It is mainly due to this, I think, that the popularity of the flower has so increased, and it is now quite possible for those who have an aversion to yellow (several of whom I have come across) to even exclude varieties of that colour and yet form a good collection. For house decoration this gain in widening the range of colouring is precious, because it has brought the flower into more general use, and thus enabled people to follow out its particular lines of beauty more fully. Surely nothing in its season can be more lovely for table decoration than a vase or centrepiece of some of these newer varieties with their richly coloured glowing cups and delicately tinted segments.

### VASES OF FAULTY DESIGN.

Too often, however, the arrangement of Daffodils and other flowers is hindered by the want of suitable vases and bowls; what should be a pleasure becomes not only a trial but a labour. Judging by what one sees in the shop windows and upon the tables at public dinners many makers of vases and so-called ornaments seem to think that receptacles should be of crude and vivid colouring and daubed with a floral design. Shape, which to those who have to arrange the flowers is such an important consideration, is lost sight of in the effort to twist the material into some absurd and meaningless design. Nor does the matter end even here, for often what might have been a good design is completely marred by the addition of some raised decoration. If there is one flower more than another for which it is important to choose a vase of plain shape and quiet tone it is certainly the Daffodil. Unfortunately, suitable vases combining these two qualifications are not easy to obtain, and I had much difficulty in getting some light table vases to arrange Poet's *Narcissi* in. Nearly every one submitted to me had some defect, generally in shape. This season will see the advent of some

### NEW GLASSES

for cut Daffodils, which have been designed by Mr. Engleheart and made by Messrs. James Green and Nephew, the makers of the now famous Munstead glasses. Both for exhibition and house decoration these will undoubtedly prove most suitable, and their good points are so manifest that they are certain to come into favour. These glasses are in three sizes, the tallest being 12 inches, the next 9 inches, and the third 6 inches in height. Their shape and good points may be summed up as follows: (a) Plain cylindrical form, which is the best for Daffodils; (b) stability given by the wide base of solid glass; (c) facility of cleaning because of the simple concave bottom and absence of angles to hold dirt; (d) transparency, which enables one to see when the flowers require water. The stone-ware vases used at exhibitions are troublesome

especially in hot rooms, where the water soon evaporates.

#### ARRANGEMENT OF BOWLS.

One of the most interesting classes at the Midland Daffodil Society's show is that for "a bowl, vase, or centrepiece of cut Daffodils in water, not to exceed 12 inches inside diameter." Last season nearly every exhibitor used a china bowl. For my own part I do not care for the imitation Japanese bowls which are now so generally used, preferring either those of a quiet self colour or those made of glass. Where there is ample space nothing is more effective than a bowl arranged with the bold massive flowers of Emperor, Empress, Sir Watkin, and others of that type, and as brass wires can now be obtained to fit any size of bowl, there is no difficulty in making the flowers stand up. A bowl of Emperor arranged by this means was exhibited by Mr. A. Cryer, gardener to J. A. Kenwick, Esq., at the Midland Daffodil show. Another well-known method is to obtain strips of lead about one inch in width and formed into waves. These are put in the bowl and the stalks fixed in the loops. Though a more troublesome way this has its advantages; it leads to the flowers being arranged in a more natural manner and not overcrowded. With the brass wires there is rather a tendency to arrange the flowers so evenly that a great deal of their charm is lost.

#### FOLIAGE.

Like many other lovers of Daffodils I have repeatedly tried to discover a suitable substitute for their own foliage, but must confess myself beaten. It is true that these flowers will sometimes look well with such things as Berberis (Mahonia) aquifolium, wild Arum, Asparagus Fern, and other greenery, yet even then some of their own foliage has had to be interspersed before the arrangement could in any way be called successful. Most people are agreed that cutting the leaves damages the bulbs, so that it is best to grow common varieties in some out of the way part of the garden solely for this purpose. In this connexion it may be of interest to quote a passage from the Journal of the Royal Horticultural Society (Vol. XXVIII.) for October last, which is as follows: "Cutting the leaves impoverishes the bulbs; it stands to reason that it must do so. We used to think it did grave injury, but we have had reason to modify our opinion somewhat. It chanced that we had a grand lot of some thousands of blossoms in a somewhat exposed position which were wanted specially at Easter. Fearing to lose them, we gathered every one on the Wednesday evening before Easter, and, as it proved, not one whit too soon, for that very night it had been planned to steal them, and the thieves coming and finding all the blossoms gone showed their spite by regularly reaping all the foliage off at the ground level. Some of it they appeared to have taken away, but the greater part was left lying on the beds. We expected the bulbs to be much injured, but as a matter of fact in the succeeding year there was no apparent difference between these beds and others which had been untouched. Whilst, then, we are convinced that some injury must be done by cutting too much of the foliage, we think the harm is greatly overrated."

#### TABLE DECORATION.

There are, of course, many ways in which a table could be decorated with Daffodils, and my intention is only to offer a few brief suggestions. Perhaps the most important of all is to cut the flowers before they are fully expanded, and with as long stalks as possible. For a table of the average size light glasses are admirable, and the only point to remember is never to overcrowd them—half a dozen blooms carefully arranged with Daffodil foliage will look better than when twice that number are used. There is no need for all the flowers to be fully expanded when they are arranged. One of the most beautiful things with Daffodils is the extraordinary charm of the buds of some of the various kinds, and to see the flowers in their several stages will give pleasure and interest to many. Tall growing sorts, like most of the Poet's Narcissi, will look best in the taller glass, and the

dwarfer sorts in similar relation. The choice of varieties must, of course, vary according to individual taste. I prefer the poeticus, Leeds, and Burbidge varieties, also such bright things as C. J. Backhouse. The Redcups are essentially house flowers, as they will not withstand hot sunshine in the garden. At Torquay Spring show last season I noticed two exquisitely arranged tables, one being composed of poeticus ornatus and La France Violets, the other a beautiful combination of Barri conspicuus and well bloomed sprays of Berberis Darwinii.

Worcestershire.

ARTHUR R. GOODWIN.

## THE ROSE GARDEN.

### ROSES FOR MARKET.

JUDGING from the market prices for cut Roses, the variety Liberty commands the highest figure. One is not surprised at this, for its glorious colour, which is so well maintained, is sure to be in request. No other crimson, not even General Jacqueminot, can equal it for brilliancy. Captain Hayward is, perhaps, a finer flower, but it does not bloom with such freedom as Liberty. There is also this difference, Liberty answers when well planted out, but Captain Hayward is best pot grown, using budded plants potted up one season in advance for the purpose. I should say it will be some time before we have anything to surpass Liberty. There is one announced from America, General McArthur, which is said to surpass both Liberty and The Meteor, but one must not be too positive about this. The following six sorts appear to command the next highest prices: Bridesmaid, Catherine Mermet, The Bride, Mme. Abel Chatenay, Kaiserin Augusta Victoria, and Caroline Testout. The small bud varieties such as Perle des Jardins, Sunrise, W. A. Richardson, Niphotos, Papa Gontier, Sunset, Safrano, &c., do not fetch more than half the price of the six sorts already mentioned. It would seem that even for decorative purposes, size and quality of blossom counts, and one must admit that three or four flowers with long stems placed carelessly in a deep vase have a striking effect.

New Roses must be of exceptional quality before they are taken up by the commercial florist. I quite expect to find Lady Roberts and the equally beautiful Boadicea used for market very soon. Raisers would confer a great boon on market growers and others if they would produce a yellow and a crimson Catherine Mermet. Who knows but what they will be obtained by one of the many rosarians now embarked in the raising of new kinds? P.

### ELECTRA AS A BEDDING VARIETY.

MANY visitors to Kew Gardens must have noticed in June the splendid bed of the above-named Rose, and many, doubtless, resolved to plant such a bed in their own gardens. It seems to me to be an excellent method of using these rambler Roses, or at least such of them as blossom freely. Electra is of this type, and it is not only a free bloomer but a vigorous grower also. I should, perhaps, explain that this Rose and a few others of similar habit are allowed to grow as they like, consequently we find long, half-pendulous shoots bent down with their weight of blossom. Upon one growth I counted as many as twenty-six trusses of about ten blooms, and buds for each truss, and one of the plants had as many as eight such growths, so that it will be readily imagined what an effective Rose it is for the purpose named. There are four rows of petals in the flowers of this Rose, and the colour is creamy white, the buds being a soft yellow. Even if space cannot be afforded for a whole bed of one Rose, at least a single plant could be placed in a conspicuous position and its growths allowed to spread out in the way described above. It must be remembered that the effect is for a short time only, but I do not see why some Tea Roses of the dwarf bedding type could not be planted close by this one plant, so that they would carry on the flowering period well into the autumn. A lovely contrast would be one plant

of Electra with dot plants among the branches, of Papa Gontier or Mme. Abel Chatenay, another of Leuchtstern with dot plants of Mme. Ravary, and so on. If we are to utilise all the good things available among these rambler Roses we must find other uses for them than the ubiquitous arch or pergola, and not a few of the kinds lend themselves to the mode of culture recommended above.

PHILOMEL.

### ROSA XANTHINA.

THIS beautiful Rose is well worth growing. Its single flowers are of a pure yellow colour. I notice M. Gravereux in his "Catalogue of the Roseraie de l'Hay" places R. xanthina in the section Pimpinellifoliae, and it certainly has a close resemblance to the Scotch Roses. It would be interesting to know if this Rose is really R. Ecae, and if so which is the correct name. "Nicholson's Dictionary of Gardening" says that R. xanthina is the correct name of R. Ecae. Professor Crepin, in his classification given in the paper read at the Rose Conference in 1889 and published in Vol. XI., part 3 of the Journal of the Royal Horticultural Society, places R. xanthina under Pimpinellifoliae, and gives as synonyms R. platyacantha and Rosa Ecae. He also says there is a double form of R. xanthina grown in China. I wonder if this is what we know here as Rosa lutea Harrisonii? I am persuaded that Rose growers must not lose sight of any yellow-flowered species, however modest it be, for there is a possibility of working up a hardy race of yellows from such species.

### PRUNING ROSES.

YOUR correspondent Mr. A. R. Goodwin, in his article upon "Rose Arches and their Management," does well to emphasise the necessity of cutting hard back the growths of climbing Roses after planting. The same advice applies with equal force to dwarf bush Roses. Many amateurs, in their eagerness to have a crop of blooms the first season after planting, are tempted to leave the shoots several inches long, instead of cutting them as low down as they can do consistent with safe pruning. The result must be weak growths, and consequently a poor foundation, that must result in an unsatisfactory Rose bush. Again, lots of amateur Rose growers are afraid to cut back their Roses hard in case they should fail to grow at all. They will not understand that buds which are not to be seen without close examination are there, and will burst into growth if the upper buds, perhaps already started, are cut off, and will produce stronger shoots than the latter could have done. When the plants are established it does not matter so much, that is supposing Roses for home use are required, but even then it is useless to leave long weak shoots. Amateur Rose growers often complain that their plants become weak and worn out after a few years, and I think this is often due as much to bad pruning as to bad soil and indifferent planting. Weak growths, instead of being removed altogether, are allowed to crowd the plants, too much wood is left on the shoots annually, and the effect is soon apparent in an altogether weakened plant. It is a pity that so much ignorance prevails about Rose pruning. It is quite a simple operation, yet growers, of course beginners in particular, blunder in the strangest ways, and frequently cut down the shoots of climbers instead of thinning out the weakly ones. An excellent article on the pruning of Roses appeared a short time ago in THE GARDEN.

A. P. H.

### PAUL LEDE.

THERE is no great advance in the recent Hybrid Tea novelties from M. Perrot-Ducher, except, perhaps, Prince de Bulgarie. This is a genuine acquisition. I think, too, the variety Paul Ledé will prove to be a valuable addition. The blending of orange, peach, and buff tints in the beautiful globular-formed flower is very striking. I suppose one must not expect too great an advance nowadays, but where the collection is so extensive we only seem to want sterling novelties. If raisers

would give us some good scarlets and crimson in the Hybrid Teas, Rose growers would be grateful. There is at present no really good crimson that can be used for bedding. Liberty is too poor a grower, and Grüss an Teplitz too late to be generally esteemed, although both sorts have gained many friends for their otherwise good qualities. P.

## NOTES ON HARDY PLANTS.

### THE EDELWEISS.

(*LEONTOPODIUM ALPINUM*.)

VERY few of the true alpine have greater interest than the Edelweiss. To botanists and the cultivators of good alpine the plant is always fascinating. Much of its garden value is in the distinctness of the plant when associated with other alpine plants in the rock garden. More or less herbaceous in British gardens, the plant, while perennial in character, gives much the best results when treated as a biennial; that is, raising the plants from seeds in the early part of one year—say, January or February—and planting them in their allotted place in May or early June to make as full a growth as possible for the next year. The plant may be raised quite easily from seeds, and when liberally treated will grow a foot or more high. Many years ago in a Berkshire garden, where the plant was used to edge the beds of hardy things, a greater height was attained, but this did not increase the beauty of the plant. To those who wish to preserve as much as possible the alpine character of the garden, one cannot do better than grow it on rocky ledges of rockwork, behind which there is an ample provision of loam and either old mortar or limestone chippings. In the more sandy soils this admixture is not essential to growth, yet it is desirable in any case where the whiter character of



THE DOUBLE ARABIS (*A. ALBIDA* FL.-PL.) IN THE GARDEN OF MR. CARRUTHERS, EDEN GROVE, CARLISLE.

the growth and inflorescences are most appreciated. On chalky soils and in limestone districts generally the plant is at home usually in the ordinary soils, and again on the red sandstone formations, even where there is a red livery clay. The class of soil the Edelweiss dislikes most is composed of clay, where the lias clay is in mixture or forms a substratum below. In such instances provision must be made as above suggested. Growing plants in the rock garden where the drainage is liberal and free should be copiously watered during the summer, and upon a good early-developed growth depends much of the flowering to follow later. In

the above connexion it should be remembered that the plant formerly inhabited the higher pastures of the mountains, where the ground in summer is often quite moist. The flowers are yellowish and not showy, but the star-like whorl of leaves, covered with dense white down, is that which has aroused so great an interest in the plant. There is a form known as *L. a. himalayanum*, less white and beautiful, and usually of taller growth. E. J.

### THE DOUBLE ARABIS.

It is seldom that a new flower bounds into popularity at once, but this has been the case with the double Arabis (*A. albida* fl.-pl.), which, as shown in the photograph, blooms with wonderful freedom. The individual flower is like a little pearly white rosette, and not only is the plant useful for its effectiveness, but it may be cut for the house. It grows quite as strongly as the type.

### SAXIFRAGA BURSERIANA MAJOR.

I ENCLOSE two photographs of *Saxifraga burseriana major*, which represent a plant of two years' growth. Two years ago it was a tiny piece 1 inch or 2 inches across. I find it does well in moist gritty loam, with abundance of coarse grit on the surface, which serves to keep the roots moist and to soak up any superfluous moisture that may be present in a rainy season such as the one we have just experienced. *S. burseriana* does best in half sun facing north-west or north-east, and objects both to dryness and excessive moisture. It grows easily from cuttings. Each small tuft if dibbled into a mixture of moist loam and grit will take root and soon make a fine plant. It flowers in February, and forms one of the handsomest plants of its genus, the large white flowers contrasting with the red stems and beautiful deep green of the mossy



EDELWEISS BY PATHSIDE.

tufts of leaves. No rock garden should be without this pretty species.

ALLAN B. HALL.

Southfields, Sowerby, Thirsk.

**ANDROSACE HEDREANTHA.**

THIS charming little Androsace was in flower in the rock garden of the Royal Botanic Gardens, Edinburgh, the other day. It is as yet a rare plant in gardens, but if it will grow as well everywhere as it seems to do at Edinburgh it will be much sought after by admirers of the Androsaces. It grows only 1 inch or 2 inches high, has foliage of corresponding size, and lovely little flowers of a very pale purple. The Edinburgh plant was growing on a rather steep rockery facing the sun, and was covered with a sheet of glass to throw off excessive rainfall, a precaution which should be taken with nearly all the Androsaces in most parts of the kingdom. There is but little information available about this Androsace. Grisebach is the authority for the name, and the plant is a native of Thrace. It is one of the best of the many good new plants in the rock garden at Edinburgh Botanic Gardens.

S. ARNOTT.

**ARCTOSTAPHYLOS GLAUCA.**

THE genus *Arctostaphylos* is known to many by the two species which are found in some parts of Britain, namely, *A. Uva-ursi*, the common Bearberry, and *A. alpina*, which is sometimes called the Black Bearberry. These two are small-leaved, prostrate shrubs, which are common in many parts of the Northern Hemisphere, and differ greatly from the subject of this note in general appearance. *A. glauca* is a native of California, and at Kew is represented by a specimen which may be seen in flower near the collection of *Arbutus*.

In habit it forms a low-growing, straggling bush, with broadly ovate, or sometimes almost cordate, leaves, which are thick in texture and resemble to a certain extent those of some species of *Eucalyptus*. In colour they are light green, with a slightly glaucous tinge, the glaucous colouring, however, being far less pronounced than is shown by Californian-grown specimens. The flowers, which are very like those of *Arbutus* in appearance, are pink, and in short, dense, terminal panicles. It flowers in April.

W. DALLMORE.

**AN ARTIST'S NOTE-BOOK.**

**FRITILLARIA ELWESII.**

THE *Fritillarias* are well represented in that particular part of the world from which this curious plant comes, and several well-known favourites which are members of this genus hail from that quarter. The subject of the illustration belongs to the section of the genus known by the name *Trichostylæ*. It is a tall-growing plant, reaching a height of 18 inches, with eight to ten narrow, glaucous, incurved leaves 5 inches to 6 inches long. The flowers are nodding, and are produced singly or in pairs, and show a curious combination of colour. The three outer segments of the flower are green, edged with purple, the inner segments are of a uniform purple, not tessellated, while the inside of the flower is a yellowish green. The plant was collected by Mr. Elwes in the rocky woods of Caria in Asia Minor, and flowered with him in 1876, when it was figured in the *Botanical Magazine*, t. 6321, as *F. acmopetala*. The latter species, although closely allied to this plant, differs in having a large apical tessellated blotch on the

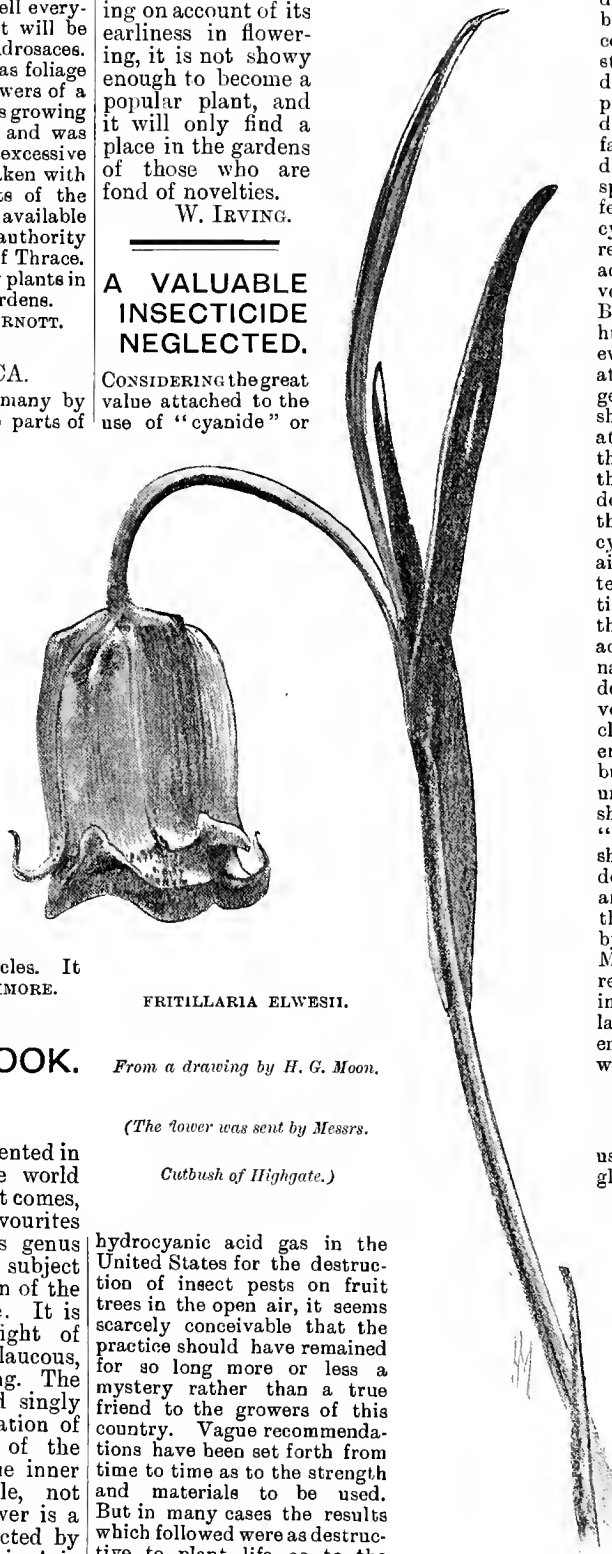
inner segments of the flower. It is also said by Boissier to have only single flowers on each stem, but this character, however, may be rendered valueless by cultivation. They both flower about the same time in April, and increase rapidly by offsets from the bulbs, which are small for the size of the plant.

Useful and interesting on account of its earliness in flowering, it is not showy enough to become a popular plant, and it will only find a place in the gardens of those who are fond of novelties.

W. IRVING.

**A VALUABLE INSECTICIDE NEGLECTED.**

CONSIDERING the great value attached to the use of "cyanide" or



FRITILLARIA ELWESII.

From a drawing by H. G. Moon.

(The flower was sent by Messrs.

Cutbush of Highgate.)

hydrocyanic acid gas in the United States for the destruction of insect pests on fruit trees in the open air, it seems scarcely conceivable that the practice should have remained for so long more or less a mystery rather than a true friend to the growers of this country. Vague recommendations have been set forth from time to time as to the strength and materials to be used. But in many cases the results which followed were as destructive to plant life as to the insects themselves, while in other cases both escaped uninjured. This clearly demonstrated the want of true knowledge regarding the properties and uses of hydrocyanic acid gas as a fumigant in this country. The conditions prevailing here are totally different to those abroad,

and it was recognised that to be successful it must be adapted to meet our requirements. With a view to arriving at these requirements and placing the operation of "cyaniding" from an experimental to an established basis, a series of tests were carried out at the gardens of the Botanic Society. One large range, 150 feet long, 20 feet wide, and 13 feet high, and a smaller one were successfully done. In these ranges plants infested with mealy bug, thrips, red spider, scale, greenfly, &c., were collected, and in the short space of two hours from start to finish all these pests were completely destroyed without injury to plant life. The preparations consisted of arranging all ventilators, doors, &c., to open from the outside, and safely fastening the same to prevent any person entering during the operation. The amount of cubic air space having been previously calculated and 1,000 feet adopted as a unit, the proper proportions of cyanide and sulphuric acid required were to hand ready for use. Shallow earthenware pans were adopted as generators, and into these the required volume of water and sulphuric acid was placed. Boards about 11 inches wide and 5 feet long were hung over each generator for the purpose of evenly distributing the gas, and worked by attached cords from outside the house during generation. The cyanide was then arranged in a shallow tin with a special tipping arrangement attached to the air fan. After carefully placing the cyanide tins in proper position, beginning at the farthest end of the house and finishing near the door, the operator leaves the structure and makes the door fast. The fans are then started, the cyanide tipped, and gas rapidly generated. The air fan should be worked for a period not exceeding ten minutes, and five are often sufficient. The time of commencing to generate gas is noted, and the period of exposure commences. This varies according to the temperature, atmospheric moisture, nature and condition of plant, and pests to be destroyed. At the expiration of this period the ventilators and doors may be opened and fully cleared from gas before any person is allowed to enter. No person must either remain in the building after mixing the cyanide and acid or enter until quite clear. Materials of standard quality should be used, and the English method of using "sodium cyanide" in place of potassium cyanide should be adopted. Better results are obtained by doing this, and the cyanide is of an even quality and a more concentrated form. This is known as the "Strawson sodium cyanide process," invented by Mr. G. F. Strawson, who, in conjunction with Mr. W. F. Emptage and myself, carried out and recorded the experiments. Other tests carried out in Messrs. Ladde's nurseries at Swanley, in Scotland, and elsewhere on the above lines thoroughly endorse our opinion as to the value of "cyaniding" when carefully carried out.

ELDERBERT F. HAWES.

Royal Botanic Gardens, Regent's Park, N. W.

[Mr. Hawes enclosed notes of the proportions to use for various purposes, and probably he would be glad to send them to anyone interested.—Ed.]

**THE FRUIT GARDEN.**

**LOUIS GAUTHIER STRAWBERRY.**

ON page 272 "A. P. H." enquires if any reader of THE GARDEN has attempted to force the above-named Strawberry, and with what success. I have some under trial which show every promise, the lateness and freedom when grown outdoors suggested its trial in pots. In replying, however, to "A. P. H.'s" enquiry I do not depend on my own experience, but give that of a neighbour who earlier placed it under trials. I recently saw under the charge of Mr. E. P. Bound, gardener at Leighton House, Westbury, a very healthy, heavily cropped batch of Louis Gauthier, which cannot fail to prove satisfactory. Being naturally a late variety, no

attempt is made to force it unduly. This probably would end in failure, as it does sometimes with another popular forcing Strawberry, Auguste Nicaise. Allowed to advance slowly under conditions favourable to Matocrop and late Peaches, this variety will give handsome results. We have seen this Strawberry at Leighton in past years varying from 2oz. to 2½oz. in weight. Louis Gauthier is better described as pale pink than white; at least, the better-grown berries assume this colour externally, and though the colour does not commend the fruit to the inexperienced, the flavour test will quickly dispel any doubts. It cannot compare with some others in richness, but there is a refreshing sweetness in well-ripened fruits. W. STRUGNELL.

### FRUIT TREE PRUNING.

A PARAGRAPH in your instructive leading article of the 16th inst. by Mr. Crump recalls a similar case to that related that we once experienced. Some standard Apple trees were received from a distant nursery during a spell of severe frost, which penetrated the ground to a considerable depth, and the trees, though their roots were carefully wrapped in straw, were frozen through. The bundles as received were laid in a cool shed and well covered with dry litter, where they remained until the trees and the ground had perfectly thawed. The trees were then unpacked and planted in the usual manner. The following spring they all started into growth, but made very unsatisfactory progress, and they subsequently showed signs of canker. The following year they lingered, and the canker increased considerably. In fact, the general condition of the trees became so bad as to be considered past recovery, and they were consequently uprooted and burned. They were then found to have made little root progress, while some of the principal ones had died and were white with fungus. The supposed origins of canker are many and diverse, but in this case it was undoubtedly the effect of frost upon the partially exposed roots, for the trees were young, clean, and otherwise splendidly grown when received. T. COOMBER.

## ORCHIDS.

### ODONTOGLOSSUM CRISPUM KINLESIDIANUM.

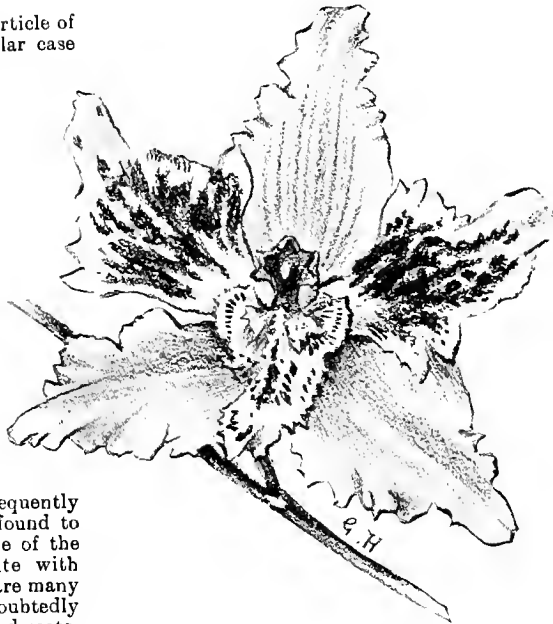
A VARIETY of unusual and somewhat curious markings. The sepals are white, except for a tinge of lilac, while the petals, which point slightly upwards, are heavily marked with brick-red. This *Odontoglossum* was exhibited by Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman), at a recent meeting of the Royal Horticultural Society, and received an award of merit.

### DENDROBIUM DEVONIANUM.

PROBABLY no exhibit attracted more attention at the Royal Horticultural Society's Drill Hall show on the 19th inst. than the group of this beautiful *Dendrobium* from Gurney Fowler, Esq., South Woodford, who is treasurer of the society. The numerous plants, their long, semi-pendent slender pseudo-bulbs smothered with blossoms, made a charming display, such as few *Dendrobiums* could do. The flowers of *D. devonianum* have a distinct charm; they are perhaps the daintiest and also the prettiest of *Dendrobies*. The sepals and petals are creamy white, tinged with pink, and the petals are tipped with magenta; the beautiful fringed lip is white, margined with purple, and orange coloured at the base. It has been called "the King of *Dendrobiums*." Nicholson says that well-grown

pseudo-bulbs often carry from ninety to one hundred flowers. I do not know the largest number on a pseudo-bulb in the group shown by Mr. Gurney Fowler, but the latter were well developed and could hardly have borne more flowers than they did.

*Dendrobium devonianum* was discovered by Mr. Gibson, who sent it to the Duke of Devonshire's gardens at Chatsworth. It flowered there for the first time in 1840, and was named in compliment to the sixth Duke, then the holder of the title. Mr. W. H. Gower, writing in *THE GARDEN* some years ago, says: "I imported a great quantity from Assam in 1875, in which the growths were over 3 feet in length, and it appeared to be in the wild state, as I had always known it at home as a



FLOWER OF *ODONTOGLOSSUM CRISPUM KINLESIDIANUM*. (Natural size.)

very graceful plant." Mr. Gower mentions that the forms of this *Dendrobium* from Burmah are much superior to those imported from Assam. He goes on to say that he has never been able to keep flowers of this species in beauty for more than eight or nine days, or for a fortnight at the most, and attributes the partially neglected culture of *D. devonianum* to this reason—the short life of the flowers. Some people find a difficulty in growing *Dendrobium wardianum*, while with others it seems to give no trouble at all. An important item is to give it a very moist atmosphere. If the latter is dry, red spider is liable to attack the leaves, which are easily disfigured, and the health of the plant impaired. It grows well in a well-drained basket in a compost of peat and sphagnum moss. The basket should be hung near the glass, so that the plant may have plenty of light and air. After growth is completed the plants should be moved into a cooler house. A. P. H.

### WORK FOR THE WEEK.

#### CELOGYNE CRISTATA AND ITS VARIETIES.

THE renovation of these should now be taken in hand. From those that have been repotted within the last two or three years only remove some of the surface material and add fresh. If the centres are getting crowded, cut away some of the back pseudo-bulbs, fill up the space with new material, and direct leading growths to the vacant spots. To keep a vigorous batch of plants each year some should be overhauled, and all back bulbs should be cut away with the exception of three to each lead. The plants may then be made up to any desired size, leaving room for development; then they need not be disturbed for three or four years. The

largest and most crowded plants are the ones that demand attention first; this radical treatment of the others may be deferred till another season. A suitable compost consists of two parts fibrous peat, one part each of fibrous loam and chopped sphagnum, mixed well together with some coarse sand and small crocks. Pans provide the most suitable receptacles, giving preference to those that have no side perforations. Place over the bottom a few large crocks, filling the pan to the depth of one-third with rhizomes to complete the drainage. Great care should be taken in rebuilding a specimen to see that there is material between each section of the plant, and the leads so placed that when finished the plant is well balanced. The surface of the compost should be on a level with the rim of the pan. The varieties *lemoniana* and *alba*, that make long rhizomes and soon overgrow the pans, should be drawn inwards, using pegs made of wire for the purpose.

#### GENERAL WORK.

With the advance of the season it is essential that the houses are kept well supplied with moisture, but even now discretion is necessary. This work must be carried out from day to day in accordance with outside conditions. Judicious ventilating and thorough damping of every part of the house are important items at this time of year, remembering that all Orchids require fresh air. *Cattleyas*, *Laelias*, *Masdevallias*, and *Lycastes* on bright days may be now slightly sprayed over, but such as *Cymbidiums*, *Odontoglossums*, *Sobralias*, *Cypripediums*, *Disas*, the scandent *Epidendrums*, *Spathoglottis*, *Epiphronitis Veitchi*, and *Laelia anceps* will benefit on favourable days by several overhead sprayings, but for the next six weeks the last spraying should be done early enough to allow the foliage to become practically dry before the evening. When the weather is very bright and the nights warm I like to see some moisture on the foliage in the evening, but at this season, when the temperature changes so very quickly, it is preferable to leave the foliage dry by the time the sun sets. The cool *Cypripediums*, *Odontoglossums*, *Disas*, and *Cymbidiums* will benefit by fire-heat only if there is any fear of the temperature in the house falling below 50°. I am not a believer in high night temperatures. When the sun-heat maintains a high temperature during the daytime and the plants are growing freely it is a great mistake to think they do not want to rest during the night.

W. P. BOUND.

Gasston Park Gardens, Reigate.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### SCIADOPITYS VERTICILLATA IN SCOTLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am at one with your correspondent "A. P. H.," on page 236, no collection of conifers should be without the handsome Umbrella Pine; it well deserves some little attention in the selection of suitable soil and situation. In "Veitch's Manual of Coniferae" it is stated that "where *Rhododendrons* thrive the *Sciadopitys* will grow." I can confirm that remark. The following particulars of specimens growing in Scotland may be of interest. Unquestionably the finest to my knowledge is at Shandon, near Helensburgh. When in the family of the Napiers of Shandon this place was well known for the fine collection of *Rhododendrons* and coniferae. For many years it has been run as a fashionable hydro. The specimen there is 24 feet high and 8 feet through at the base, and is in perfect health. Another fine plant is at Munches, Dalbeattie, height 18 feet, spread of branches



at base 9 feet, girth of stem 3 feet from ground 15 inches. The tree at present is well furnished and carrying a great many cones. The late Mr. Maxwell of Munches was an old personal friend of mine, and I well remember it was a source of great disappointment to him when I came across the Shandon specimen, as both of us were under the impression that he had on his property the finest plant in the country. Yet another fairly good plant is at Tynninghame, East Lothian (13 feet 6 inches), but, as Mr. Brotherton says, "it has a great struggle for existence among Elms and Beeches." The Murthly specimen is barely 8 feet, and apparently is not planted in a suitable situation. At Ochtertyre Mr. Croucher reports that a small plant procured in 1892 18 inches high is making good growth and is now 6 feet 6 inches. I may have something to say about Umbrella Pines in Ireland next week. Most of the *Sciadopitys verticillata* grown at Castlewellan, County Down, are young and are 10 feet in height. One plant is 14 feet in height, but is not a very shapely specimen. Twelve years ago we had a plant 18 feet high but it got broken and had to be cut down.

*Pinkhill, Murrayfield, N.B.* D. P. L.

### OLD AND NEW VARIETIES OF POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is referred to on page 244, and there is no question whatever that new varieties are wanted. If we take up a seed list, say, of the sixties or later it will be seen that scarcely any of the old sorts are left, and this would not be the case had they been profitable. Those who have made Potato culture a study for some time will have observed how quickly some sorts die out, and this is not always the result of the tubers being of poor quality. I fear in some instances it is because they do not continue to give the same return year after year in the same soil. This is a point that the new society should study. I well remember twenty-five years ago my employer insisting on only one variety being grown; it had done well for years. And what was the result? From home-grown seed we did not get a quarter of a crop, and finally disease claimed the whole. Then *Magnum Bonum* was introduced, and the old ones were gradually weeded out. As far as quality was concerned, not crop, I never had a better Potato than the old *Victoria*; another was the *Lapstone kidney*, and the large red *Regent* grown in fields. These are now out of date. For many years I kept the old early *May Asbleaf*, owing to its earliness and flavour, but the crop dwindled, so that it will be seen there is need for new varieties. G. W.

### HARDY SHRUBS AFTER FORCING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Quite recently an article appeared in *THE GARDEN* on the subject of hardy shrubs now used for forcing, which concluded with a remark that it would be interesting and perhaps instructive to know the amount spent annually on the Continent for forcing shrubs alone. Doubtless if the figures could be obtained they would astonish many, but the point I would draw attention to is that the amount is greater than it need be if these plants were taken greater care of after serving their time in the forcing house. Hundreds of growers have proved that though it is not to be expected that hardy shrubs can be forced year after year with impunity, yet under careful treatment they may be used time after time for this purpose, if a season or two is allowed to intervene between. Unfortunately, there are many who have yet to learn this lesson, and though the neglect of plants after forcing may be a means of putting money into the pockets of foreign growers, it is nevertheless an instance of deplorable waste.

It is hardly necessary to observe that the heat which is required to force shrubs into flower also

forces growth, and when the blossoms are cut or have faded and the room is required for something else, this delicate-forced growth needs careful nurturing if the plant is to live and thrive and serve some useful purpose in the future. In many gardens there are plants of *Lilacs*, *Azaleas*, *Deutzias*, *Spiraeas*, *Staphyleas*, *Laburnums*, &c., that have been forced over and over again, and yet under the treatment they get in between they do not seem as though they have lost much of their vitality. All credit is due to growers who make the most of the material they have at hand in this way. There is nothing to be said against buying in plants for forcing in order to supplement the home stock, but there is no excuse for such plants perishing ignominiously on the rubbish heap after they have borne one crop of flowers.

Any man who has a regard for his forced shrubs naturally thinks first of the flowers, but these over he centres his attention on the growth, and keeps the plants in warmth for a time, afterwards removing them to a cooler temperature, and finally out of doors to ripen and harden. They should be allowed a season or two of natural growth in order that they may be able to recoup themselves after the strain of forcing, and then they are ready to serve the same purpose again. By having a reasonable number of plants, and occasionally buying in a fresh stock, with a methodical method of dealing with them during the time they are not being forced, useful supplies of early flowers may be obtained and waste be avoided. G. H. H.

### CUSHION (ONCOCYCLUS) IRISES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I can assure Mr. Mallett (see *THE GARDEN*, page 250) that it will require something more than "a few hot dry seasons" before these beautiful Irises will enjoy the climatic conditions of Britain. No



THE RARE PHOENIX REBELEII IN THE NURSERY OF MESSRS. R. B. LAIRD AND SONS, MURRAYFIELD, N.B.

solitary worker among these plants has striven so long and so faithfully as the late Mr. Ewbank, at Ryde, expending lavishly both money and time, with the one hope that the requirements of these things should be once and for all settled. The old parsonage garden at Ryde may well be described as a sun garden, for there is no shade in it naturally, and what was obtained was given to those things requiring it. Yet apart from this natural exposure every effort was made to give these Irises that complete rest in summer by growing the plants in specially designed frames, where abundance of light and air reached the plants without the slightest moisture. The "lime theory," in which Mr. Ewbank had centred so much hope, was, as I have already stated in *THE GARDEN*, quite a

failure, and seeing the failure has been openly declared long ago, one is surprised at Mr. Mallett's closing words respecting it. But even the "lime" was no haphazard guess, but rather the outcome of much thought and correspondence, and, to those who undertook the task, considerable expense. Unfortunately, however, owing to the cost of analysis of soils from the native haunts of these Irises, present-day cultivators have gained little so far as the permanent success of the plants in British gardens is concerned. There is, therefore, a wide field open if Mr. Mallett desires to experiment, and I for one should eagerly read of any success that may be regarded as permanent. At the same time the experimentalist of to-day possesses a decided advantage over those of years past, and the failures will not render it necessary to tread the same ground again. Indeed, these should prove of material assistance as to what is best to avoid.

In all probability, however, these interesting plants will never long be satisfied with the English climate. Equally probable, too, is it that the winter season here hinders satisfactory growth and the forming anew a good flowering crown or rhizome to replace that developed in the native habitat of the plant and virtually exhausted by its first flowering. Starting into growth practically with the opening of an English winter, the conditions prevalent do not favour that root development so essential to permanent success. Once the cultivator has secured the conditions of good growth in these plants, in place of the much enfeebled growth of present day culture, a decided advance will have been made towards securing permanently good results. With such growth existing "the hot dry season" will play its part undoubtedly. What the British gardener lacks is the plant, and remembering that its growing season is from November to May inclusive, it seems pretty certain, so far as open air culture is concerned, the difficulty in the future will be as great as in the past.

*Hampton Hill.*

E. JENKINS.

### NURSERY GARDENS.

AMONG the leading nursery and seed businesses around Edinburgh a high position must be assigned to that of Messrs. R. B. Laird and Sons, Limited, Edinburgh. Mr. R. B. Laird, whose name is still retained in the firm's designation, was a native East Lothian, where he was born in 1823. He entered upon his trade career with his brother, Mr. W. P. Laird of Dundee, a business now well known under the name of W. P. Laird and Sinclair. Mr. Laird afterwards obtained an appointment with the old-established firm of Dicksons and Co., Edinburgh, and in 1848, in conjunction with the late Mr. John Downie, he began business in the nursery and seed trade. The principal place of business of the firm at that time was at the Royal Winter Gardens, West Coates, Haymarket, Edinburgh, a noted establishment in its day, but owing to building operations it has disappeared. The then firm of Downie and Laird rapidly established a large business, and early in the fifties it was found necessary to acquire additional nursery ground. This was secured at Pinkhill, near Murrayfield, a capital situation.

The business of the firm grew apace, a large trade being done in florists' flowers, then greatly in vogue, and the increasing connexions of the business led to Messrs. Downie and Laird opening a branch in London, and their assumption of Mr. John Laing as a partner, the designation adopted being that of Downie, Laird, and Laing. Some time afterwards the partnership was dissolved, and Mr. R. B. Laird assumed as partners his two sons, Mr. David P. Laird and Mr. Robert Laird, the present managing partners in the business carried on at West Coates, Pinkhill, and Frederick Street, Edinburgh. On the death of Mr. R. B. Laird in 1895 the firm was converted into a limited liability company, the whole capital remaining in the hands of the family of the late Mr. Laird, which is thus alone interested in its success. The entire manage-



SEED BEDS AT MURRAYFIELD.

ment is in the hands of Mr. David P. Laird, one of the best-known men in the trade in Scotland, who has the control of the nursery department, and his brother, Mr. Robert Laird, who has the management of the extensive seed and bulb trade of the firm, which is conducted in suitable premises in Frederick Street, Edinburgh. These have been continuously occupied by them since the establishment of the firm in 1848.

In the year 1875 the firm added to their Pinkhill grounds a considerable tract of land on the opposite side of the road, and here their present offices and the extensive ranges of glass were erected in 1893, when the winter gardens at West Coates were taken down. As already mentioned in the early part of the career of the firm, florists' flowers were a great speciality, but, with a view to the development of other departments, in 1890 a lease of the farm of Beechwood Mains, close to the other nurseries, was secured for the cultivation of forest trees and fruit trees, then growing into a large department of the business.

Recently the construction of the Corstorphine Railway led to a small encroachment upon the lower nursery grounds, but last year this was more than compensated for by the acquisition of a lease of the Corstorphine Glebe, where ornamental shrubs and forest trees are cultivated on an extensive scale.

In the offices Mr. D. P. Laird, who also acts as horticultural valuer and auctioneer, has an interesting collection of photographs and sections of trees, forestry being a subject in which he takes great delight. Among these sections is one 2 feet 9 inches in diameter, from a tree of *Araucaria imbricata*, cut down when fifty years of age at Duart Castle, Mull. In the conservatories and other houses a great feature is made of forcing and decorative plants, a department in which the firm has achieved a wide reputation, helped, doubtless, by the many splendid groups they have exhibited at the Edinburgh shows, many of which have been subjects of the greatest admiration to visitors. Many gold and other medals have been awarded the firm for these, as well as certificates for other exhibits. Some of the groups at the spring shows, composed mainly of forced shrubs, have been exceptionally beautiful.

An inspection of the conservatories showed many forcing plants in splendid condition. Exceedingly attractive, for example, were the neat plants in pots of the old double *Kerria japonica*, full of flowers, which were darker than those one generally sees on outside plants. *Spiræas* and

*Astilbes* (Washington the best for forcing), *Prunuses*, *Lilacs*, *Japanese Maples*, *Cytisus*, *Sweet Peas*, and many others were in great abundance. *Azaleas*, greenhouse *Rhododendrons*, *Cinerarias*, *Schizanthus wisetonensis*, and a great variety of other flowering plants are grown in large quantities. A striking feature here is the collection of *Acacias*, of which an unusual number of the best species is grown. One noted in passing along such as *cordata*, the fine *lineata*, *riceana*, *armata*, *saligna*, and a number of others. Mr. D. P. Laird is very fond of these decorative plants, and has thoroughly realised their capabilities for decorative purposes.

Specially good, also, are the *Palms*, of which there are many fine specimens, not only in the conservatories, but also in the Palm houses, while in other departments there are thousands of smaller plants of those most in demand. The decorative trade of the firm requires a large stock of specimens, and Messrs. Laird have a great many of suitable size, comprising not only the popular species, but some less well known. One observed a fine plant of *Kentia kersteniana*, *K. sanderiana* with *Rhapis flabelliformis*, *Phoenix Roebelenii*, and a noble specimen of *Caryota urens*. One cannot, however, venture on lengthened detail of such a good collection. *Bamboos* in pots are also found useful, and are much grown, while there are great numbers of *Araucaria excelsa*, *Asparagus Sprengeri*, and others of the genus, with *Fuchsias*, *Pelargoniums*, *Boronias*, and others. *Orchids* are also largely cultivated, chiefly for cut flowers to meet the extensive cut flower trade of the firm. Among these there was an exceptionally fine *Cypripedium elliottianum*.

There are a number of other glass houses on the ground, all filled with healthy, well-grown plants of *Crotons* (*Codiaeums*), *Dracaenas*, and stove plants generally. One may mention that several of the best *Crotons*, such as *Lady Tennant* and *Mrs. Steele*, originated in the Pinkhill nurseries, as well as what are considered about the best lot of narrow-leaved *Dracaenas* in the trade. Of the latter may be named *Mrs. D. P. Laird*, *Princess May*, and *Miss Glendinning*. There is a splendid lot of *Caladiums* also, several being of the firm's own raising. In the outdoor department adjoining the houses a great quantity of general nursery stock is cultivated.

The new portion of the nurseries at the Glebe is in hand, but not yet fully planted, but the flourishing condition of that which was planted last year shows the wisdom of the selection of this land,

which is quite convenient to the other nurseries. Here *Hollies*, *Rhododendrons*, ornamental and forest trees will be cultivated in extensive quantity.

The original Pinkhill nurseries, which lie on a slope facing the south and fully exposed, are extensive and interesting. Here is the old house of Pinkhill, occupied now by Mr. D. P. Laird, and here a countless number of good florists' flowers have been raised and sent out. The old days of the Pansy are held in remembrance by the part still known as "the Pansy frames," although that flower is not now extensively cultivated by the firm. There are, however, hosts of *Violas*, while a general stock of hardy florists' and herbaceous plants is cultivated, the latter numbering the best standard plants. The collection of perennial *Asters* is a very complete one, and *Irises*, *Hellebores*, *Phloxes*, *Doronicums*, and other good flowers are well grown. In addition there is a very large stock of ornamental shrubs and trees. The old Beech hedges are quite a feature of the place. The glass department here is both interesting and extensive. Much of it is used for propagating or for the supply of cut flowers. There are some magnificent *Camellias*, which remind one of the old days when these were so fashionable. A very fine strain of *Clivias*, and an equally fine one of *Hippeastrums*, attract one's attention among other things, while one sees thousands of *Ivies*, forming an unusually complete collection. *Pelargoniums*, *Marguerites*, *Clematises*, and other plants too numerous to detail are in great numbers. *Conifers* in course of propagation should be mentioned.

From Pinkhill, with its many interesting features, a visit was paid to Beechwood Mains to have a glance at the forest trees. These comprise all the best genera and species with their varieties. This important department, like the others undertaken by the firm, is thoroughly done. One must not omit, in conclusion, that fruit trees and bush fruits are a large department in themselves, and that care is taken to give as much attention to these as to the other branches of the large business of this important firm. S. A.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### BAMBOOS.

ESSENTIAL points in the successful cultivation of hardy *Bamboos* are a well-drained soil—for the *Bamboo* is impatient of stagnant moisture—and complete shelter from any cutting winds, no matter from what quarter they come, for, despite the tough appearance of the *Bamboo* leaves, they are easily torn and discoloured. The best time to plant is just as growth commences, although with well-established plants in pots, properly hardened off, planting if properly performed may be successfully done at almost any time except during the dead of winter. When planting out *Bamboos* from pots it is best to break the pot rather than to risk injury to the extremely brittle roots. After planting a good mulch should be applied, and during the growing season plenty of moisture is required. The plants should be enclosed with small-meshed wire netting, as rats are very fond of the sweet, succulent young growths, which are so brittle that a slight touch is often sufficient to break them. Established plants greatly benefit from a mulch of farmyard manure applied at this period. Once established, *Arundinaria japonica* (*Bambusa Metaké*) is a rampant grower, and, if not kept within bounds, will smother the more delicate sorts. Nearly all the species may easily be propagated by removing the offsets with a piece of root attached. In the warmer counties these may be planted out of doors, but in colder localities it is desirable to pot them and place the plants in a warm house for a time. These offsets and plants which have been transplanted will sometimes remain dormant—to all appearances dead—for twelve months, and more rarely two years before making any growth. Many of the *Reeds* and *Grasses*, such as the *Pampas*

Grass, *Arundo conspicua*, *A. donax* and its varieties, *Panicum Gauntlettii*, *Eulalia gracillima*, *glauca*, and *zebrina* may with advantage be associated with the Bamboos.

#### PRUNING EVERGREENS.

Any evergreens, Bays, Laurels, &c., which require to be cut hard back may now be pruned. Fresh growth will soon commence. Many of the *Aucubas* are still attractively laden with their red berries, and it will be as well to delay for a time any pruning that may be necessary. Box edgings may now be clipped.

#### SEED SOWING.

Seeds of Wallflowers, *Polyanthus*, and *Forget-me-not* sown on an outside border will furnish plants suitable for the autumn planting of the flower-beds. A selection of the numerous varieties of Wallflower is indispensable for spring bedding. The bulk of the plants of *Polyanthus* and *Forget-me-not* will be obtained from plants divided and planted after the spring bedding is over, but it is advisable to sow some seed. A. C. BARTLETT.  
*Pencarrow Gardens, Bodmin.*

### INDOOR GARDEN.

#### INDIAN AZALEAS.

THE flowering period of these is now practically over, and the plants should be encouraged to grow by removing all decaying flowers as well as seed-pods. It is important to keep moist the atmosphere of the house in which the plants are situated, and they should be syringed well at least twice daily. Mistakes sometimes at this period are made by allowing the soil about their roots to become dry, a condition that not infrequently ends fatally. Afford copious applications of cow and sheep manure liquid, with which also a little soot may be mixed, and much benefit will be derived if a dose or two of Clay's Fertilizer or some other chemically prepared manure is given. Repotting the plants, except in very urgent cases, should be deferred until the month of September. To check thrips, with which these plants frequently become infested, fumigate occasionally with XL All, or syringe them well with Bentley's Insecticide.

#### CANNAS.

These are most useful for decorative work when allowed to produce one flower-spike and grown in 6-inch pots. Apply liquid manure liberally to the roots, and afford them a position in which they will enjoy plenty of light and fresh air. Should any of the plants show a tendency to produce several good strong crowns, replot them into 8-inch and 10-inch pots, and afford them a compost of two parts fibrous loam with one part peat or leaf-mould, dried cow manure, and a little coarse sand.

#### ACHIMENES

that are now growing vigorously should be removed from the stove to a cooler temperature, such generally as is afforded by the intermediate house, as with more light and air their growths will be less likely to become drawn and long-jointed. Stake and tie up the shoots as they develop, but allow complete liberty to those that are growing in baskets suspended from the roof.

#### PRIMULAS AND CINERARIAS.

The young plants of these that have been raised from seeds sown early are ready for potting singly into 3-inch and 4-inch pots. Give them for a time a position that is slightly shaded and moist, but after they are well rooted expose them to more light and air. In the course of another week or two they may be safely placed in a cold frame. Useful decorative plants can be raised from seeds to be sown now, and grow them in small pots; they will require only a cold frame for their culture.

#### GESNERAS.

These are useful decorative plants for the autumn, and, if the tubers are not already started, no time should be lost in carefully shaking away the old soil and in getting them replaced into the new compost to start. Plenty of peat, fibrous loam, coarse sand, and charcoal form a compost in which

they will grow freely, especially if they are given a moist position in the stove and well syringed.

J. P. LEADBETTER.

*The Gardens, Tranby Croft, Hull.*

### FRUIT GARDEN.

#### APRICOTS.

THIN the fruits of these as soon as it can be seen which specimens are taking the lead. As Apricots sometimes drop during the stoning period it is wise not to thin too freely. Continue to disband the trees, and stop any strong-growing shoots that are not required for extension. Secure natural spurs wherever it is possible, or form artificial ones where necessary from foreright shoots by pinching. On walls with fixed copings if the weather continues mild netting and other protecting material may be removed. The borders should also be examined near the walls, and if found at all dry should be thoroughly watered.

#### PEACHES AND NECTARINES.

If the young shoots of these trees are sufficiently developed they should now be disbudded. This work should be carried out carefully at intervals of five or six days until the trees are finished. Commence at the top of the trees first. Retain the two lowest buds on each shoot, and a leader to form the bearing wood for next season. First remove all foreright shoots and those at the back, also any strong-growing ones that have started from dormant buds, unless they are required to furnish the base of the tree. Do not be tempted to lay in more wood than is required for next season. Young trees require rather different treatment, and more shoots should be left than in old trees, but even these should be from 4 inches to 6 inches apart. Aphis is almost sure to make its appearance, and must be checked with tobacco powder or syringed with quassia water.

#### RASPBERRIES.

Autumn or spring-planted canes cut down as advised will now be throwing up strong shoots from the base. Only the strongest canes should be allowed to remain. Remove all suckers springing up between the rows of old plantations, and also weak ones in the rows. Give a rich dressing of manure.

#### GENERAL WORK.

The rains of last week have done a great amount of good in this neighbourhood to fruit trees and vegetation generally. All small fruit quarters should be hoed to keep the weeds in check; any

grafting not done should receive attention at once, and stocks which were grafted last year should be looked over, and the grafts made secure to stakes if necessary. Rub off shoots springing up from the stocks. Freshly grafted trees should be examined, and the cracks in the clay filled up by moistening. It is not always necessary to use rich animal manure as a mulch; this often keeps the borders cold and forces gross late growth, but established trees which are expected to carry good crops of fruit require rich top-dressings.

*Impney Gardens, Droitwich.*

F. JORDAN.

### KITCHEN GARDEN.

#### PEAS IN POTS.

THESE are now in bloom, the earliest being set, and will require careful watering and as much ventilation as possible. The plants enjoy a temperature of 55° at night. If growing in a house where syringing is necessary, the plants should be kept as dry as possible when in bloom. As soon as the pods are formed they may be lightly syringed twice daily in sunny weather. To assist the pods give them weak applications of soot water and liquid manure. Turn the pots frequently and allow the sunshine to reach all sides of the plants.

#### FRENCH BEANS.

The weather is now too warm to manage these successfully in glass houses. Red spider will make its appearance. Beans should now be cleared out of houses containing other plants and grown in cool or slightly heated pits. Begin this crop out of doors by making a sowing on a sunny border. Sow in rows 3 inches deep and 2 feet apart. Canadian Wonder is a good early sort, and may be followed by Veitch's Favourite and Negro Long Pod. A sowing should also be made of Runner Beans, sowing the seeds 6 inches apart in double rows. As soon as they are about 4 inches high draw up the soil to them and stake; a dusting of lime or soot will act as a preventive against slugs.

#### POTATOES.

All these should be planted this month. The earliest plantings are now coming through the ground, and a sharp watch should be kept in case we have frost towards the end of the month. Mats laid along the rows or an inverted flower-pot placed over the growths will be the surest safeguard. Those growing in frames should be freely ventilated by day and given plenty of water. Before earthing these up they should be given a thorough good watering.



IN THE PINK HILL NURSERY OF MESSRS. R. B. LAIRD AND SONS.

## WALKS AND EDGINGS.

Box edgings may now be trimmed and clipped with the shears. Care should be taken to do this work well. Blank spaces should be made good. Water the newly-planted parts in dry weather. Edgings of *Polyanthus* are common in many gardens; these should be relaid immediately after flowering. On fine days use the hoe frequently on the garden paths. THOMAS HAY.

*Hopetoun House Gardens, N.B.*

## NOTES FROM THE MARKETS.

**C**OVENT GARDEN.—This is the most interesting time of year for visiting Covent Garden flower market. There are flowers everywhere, in addition to the ordinary covered-in market; heaps of bloom may be seen outside, and under the new French market it was nearly occupied with stalls filled with spring bedding plants and hardy flower roots. What is called the new French market is overlaid with bloom; but much that is seen now comes from Holland, the Channel Islands, and the Scillies. It is surprising that such large imports should continue to pour in when we find much that is sold does not realise sufficient to pay freight and other charges which have to be made before the growers get anything. Last Saturday morning, the 23rd inst., boxes of *Narcissus* from Holland were being sold at ridiculously low prices, yet the flowers all looked fresh and in the best possible condition. I cannot quite understand how these sales are conducted, but in a chat with one of the market officials I gathered that senders from France had some guarantee through their agents and from moneys deposited in a bank. A certain amount per box or pad could be drawn for all certified as having passed through the agents in good condition, and that the English agents had to pay out something like 2s. on each package before handling. This was stated in reference to some which had to be cleared out at from 6d. to 1s. per box, thus causing a loss to the salesman of from 1s. to 1s. 6d.; but there must be some way of making up for this, otherwise the salesmen could not go on long.

From what I could gather, however, there seems one thing certain—that is, that all foreign produce is handled in the most economic and systematic manner possible. Yet, at the same time, the assertion that English growers have no chance against such competition is hardly to be taken seriously. It is, however, much to be desired that our English growers should be able to get better terms in regard to railway rates and other regulations, which would ensure all produce going on the markets on a more economic system.

*Roses* continue very plentiful, and some remarkably fine blooms are seen. Most growers now cut them with long stems, but it should be remembered that with so much foliage the blooms do not last so long. *Bridesmaid* is a great favourite; *Maréchal Niel* is now very good; *Kaiserin A. Victoria*, *Mme. A. Chatenay*, *Mrs. J. Laing*, *Mrs. W. J. Grant*, and *La France* are worthy of note. *Ard's Pillar* is a very fine crimson, which should be worth looking after by all Rose growers. The blooms I have seen were of a peculiarly rich colour and of good size, and I am told that grown in the same manner as *Crimson Rambler* it makes a grand pot plant. *Crimson Rambler* is now coming in very good. There are also *Roses* in 4½-inch and 6-inch pots.

*Lilies* are now very plentiful. *L. longiflorum* in pots are very good; *L. auratum*, *L. speciosum*, and *L. tigrinum* are good as cut flowers. *Lily of the Valley* both in pots and cut has been most plentiful, and some extra fine blooms are seen. *Carnations* are now more plentiful; the American varieties continue to take the lead, but there are some very good *Miss Joliffe*, and also *Mme. Therese Franco* to be seen.

*Daffodils* continue over plentiful; there are not quite so many in pots, but cut flowers are coming in from all sources, and just now there is quite a glut. Much of the winter stock is over.

*Hydrangeas* are coming in plentifully, the pink variety being much better coloured, and the *Thomas Hogg's* are very good in various sizes.

There is now a brisk trade for all plants required for window boxes. Intermediate *Stocks*, crimson and white, sell well; zonal *Pelargoniums* are now more plentiful, and there are some well-flowered Ivy-leaved varieties to be seen, *Galilee* and *Mme. Crousse* being the leading sorts. *Fuchsias* are now very good, also *Heliotropes*; *Verbena Miss Ellen Willmott*, well-flowered plants in 4½-inch pots, sell readily. H.

## A REMARKABLE ACCIDENT.

At the Gloucester County Court last week a gardener named Joseph Jesse Richings made a claim under the Workmen's Compensation Act in respect of injury of a kind stated to be unique in the history of such proceedings. The applicant, whilst in the employment of Mrs. Ancrum, St. Leonard's Court, Gloucester, stooped to pick up some dead leaves, when he inadvertently brought his face in contact with an American *Aloe* plant, a spike of which penetrated the left eye, causing serious injury. The doctor thought probably the juice of the *Aloe* acted as an irritant poison. Judge Ellicott awarded the applicant half a guinea weekly, plus half the rateable value of the house he occupied.

## THE KITCHEN GARDEN.

## ASPARAGUS AND FROST.

**A**NYONE can understand, as mentioned by Mr. Wythes, that serious injury would be done to *Asparagus* cut down by frost after it had nearly completed but not matured its growth. Damage would, of course, be inevitable. I have seen plants of *Bocconia cordata* and clumps of the common *Bracken*, &c., after having been cut down very late in spring weakened in like manner to the *Asparagus* that Mr. Wythes alludes to. I quite agree with the opinion that the flooding of the beds and the heavy rainfall may have killed the roots of the young plants, as upwards of twenty years ago, when we had a series of very wet seasons, established *Asparagus* beds here were utterly ruined by their saturated condition. Many of the plants died outright, while the remainder were so weakened as to be worthless. This happened to beds that were well drained, yet partially composed of our heavy cold soil. T. COOMBER.

## THE NEWER BORECOLE OR KALES IN SPRING.

The list of good green vegetables in the early spring is none too great, and those that are available, such as the *Kales*, are very valuable; they are hardy and productive. In our variable climate we are not able to rely upon the *Broccoli*, though the sprouting varieties run the *Kales* very close both in quantity and quality; indeed, many prefer the *Purple Sprouting* to the *Borecole*, it is hardier than other sorts, and a delicious vegetable when young. Private growers who cut their own supplies of green vegetables have a great advantage over those who are compelled to purchase. The *Kales* sent to market differ greatly from the tender green shoots gathered at home. In the former there is a large proportion of old coarse leaves, stalk also. This is useless. Few vegetables give a better return or are grown more readily, and almost any soil is suitable. Of late years a marked improvement has been noticeable in the growth of the plant; there is more heart, less coarse leafage, and a dwarfier and more shapely growth. The latter point is a gain, as with a dwarfier plant in exposed situations there is less damage in severe weather. I well remember in the severe winter

of 1880 our tall *Scotch Kales* being much injured by severe frost, the portion most readily affected being the exposed part of the stem, but with the dwarfing of the plant this is not the case; at least, so far I have never experienced such losses, and I have grown all the newer varieties.

I am not sure that the curled varieties are the best flavoured; they are certainly the best to look at, and no charge can be made against them as regards productiveness, but plain-leaved varieties, which produce shoots so freely from now to the middle of May, are little inferior to *Asparagus* if gathered in a young state. Of late years these *Kales* appear to me to be less grown, and this is not to be wondered at. I regret to say they have been badly infested with a fungus that appears in early autumn and destroys the young growth. This may only be local, but I saw some large breadths that must prove a loss to the grower. To describe all the good *Kales* would take too much space, and I will briefly refer to a few of the more recent introductions. One of the most valuable is doubtless *Read's Improved Hearting*. It cannot be called new, having been in cultivation for some years, but it is a splendid advance on the old curled varieties, and being a very late variety of compact growth, it is all the more valuable, as it is the last to run to seed. The same raiser has recently shown a new sprouting variety, which is also dwarf and very hardy. This promises to be quite as valuable as the earlier introduction. This when cooked very much resembles the larger plain-leaved *Borecoles*.

Another distinct *Kale* is *Drumhead*. It is very distinct, in shape not unlike a *Drumhead Cabbage*, and has broad leaves. It can be used in various ways, as if the broad midrib of the leaf is cooked separately it much resembles *Asparagus* in quality. Like the other *Kales*, this one when the heads are cut produces a quantity of young shoots, which are excellent when cooked. The *Drumhead Kale* is earlier than those noted above, and for this reason may be more valuable to amateurs, who, by cutting the heads—that is, the first crop—from, say, October to December, will later on have a plentiful supply of sprouts for spring use. I am unable to state if this variety is as hardy as the ordinary *Borecoles*, as I have not yet tested it in a severe winter. I should advise sowing the seed now, as a long season of growth is required.

I now come to a very different class—the *Arctic Kales*, both *White* and *Purple*—the leafage closely resembles the *Scotch* types, but the plants have a longer leaf, and the growth is dwarfier, the leaf curling down to the soil, so that in severe weather this protects the stem. We have had no losses in the worst winters. I do not think this variety equal to some as regards quantity, but the growth is compact, so that a number of plants can be grown in a small space.

Another very fine *Kale* is *Sutton's Improved Hearting*; it is of delicate flavour, and recently received an award of merit from the Royal Horticultural Society. It is a most valuable introduction, and much like *Read's* in this respect, also for crop and good keeping. There are other *Kales* that have been introduced of late years. Only quite recently I saw a splendid exhibit of variegated *Kales*; the colour was beautiful, and most effective for decorative purposes, but I do not advise their culture as a vegetable. The other sorts are so much better in flavour, and yield far greater; indeed, these highly-coloured *Kales* are not very robust. April is a good time to sow, and even that is full early in the south. The quarter the *Kales* are grown in should be ready for the seedlings, as the plants soon suffer if sown too thickly or are left too long in the seed-bed. By getting a strong plant, early planting out in deeply dug soil, few vegetables give a better return or for a longer season. G. WYTHES.

## BOLTED CABBAGES.

This is a problem of perennial occurrence, as Mr. Hollingworth very truthfully points out, and many in past days have found that a possible solution of one year finds an absolute reverse in the next. The time of seed sowing has been often given as the

cause of bolting, but as far as my experience goes there is not much truth in it. Out of a bed of some 300 plants situated on a sheltered border I find there are two only that have run to seed. Wheeler's Imperial and Sutton's April are the varieties planted, and the failures are equally divided. The value of shelter in our case is very marked this spring in the Cabbage bed. A much larger plantation in the open will require some weeks yet ere they are fit for the table, while from the same sowing we commenced cutting firm little heads before the middle of April. Though Wheeler's is usually the first to be ready, I find Sutton's April full-hearted just as soon this year. These were sown on July 20, and planted after Onions on September 19. Ellam's and Early Offenham are two other Cabbages that are chosen in addition to those already named for main crop; the latter is an older sort, but none the less desirable for general cultivation.

Mr. Hollingworth is wise in advising two sowings as a safeguard against wholesale loss should the season favour bolting. Early matured beds in this neighbourhood are of rare occurrence; in one garden recently visited they were weeks behind their usual season of cutting. In another case, where there appeared a good prospect of an early bed, almost all the plants were bolting. The artificial means resorted to by some enthusiasts, and instanced by your correspondent, I hold to be wasteful of time and result; a remedy which may seem helpful in one season is useless in another. The only safeguard is to make at least two sowings, one in mid-July and the other a month later. If the plants from the latest do not mature as early as one can wish, they will at least save the grower the unenviable position of being without Cabbages in early summer.

W. STRUGNELL.

## SOCIETIES.

### MIDLAND DAFFODIL SOCIETY.

THE sixth annual exhibition of this society was held on Tuesday last in the Botanical Gardens, Edgbaston, and was acknowledged to be a very fine display of the flower, both in extent and quality. The exhibits were exceptionally fine, and Mr. Robert Sydenham, Mr. John Pope, and their colleagues are certainly to be congratulated upon the continued and increasing success that attends the exhibitions of the Midland Daffodil Society. The attendance on the first day was large, and in the afternoon it was difficult to approach many of the groups. Miss Willmott, the Revs. G. H. Engleheart and S. E. Bourne, Messrs. Barr and Sons, Messrs. Pearson and Sons, Mr. E. M. Crosfield, Mrs. Backhouse, and others exhibited many new varieties, and numbers of first-class certificates and awards of merit were given by the committee. Although Narcissi were chiefly responsible for the display, other flowers, such as Tulips, Anemones, Roses, Carnations, &c., were also largely shown. The various groups were arranged in the glass-roofed corridor of the Botanical Gardens, and transformed this for the time into quite a house of flowers. A good deal of work in connexion with the exhibition fell to the lot of Mr. T. Humphreys, curator of the Botanical Gardens, and a word of praise should be given to him for the arrangements made for the convenience of exhibitors and others.

### PRIZE LIST.

Fifty varieties of Daffodils: First, Mr. E. M. Crosfield, Little Acton, Wrexham, with an exhibit that contained many fine blooms of the best sorts. The first prize was a silver Daffodil vase, given by Messrs. Barr and Sons, and the society's gold medal. Two varieties in this collection obtained awards of merit, viz., Saladin and Maid Marion. Other good things were Horsfieldii, Glory of Leiden, Indamore (seedling trumpet), Emperor, King Alfred, Weardale Perfection, Milady (seedling trumpet), Grandee, Wavren's Giant, all trumpets; and of others there were Chaucer, Nelsoni major, Albatross, Duchess of Westminster, Mrs. Langtry, and Herriek. A. S. Leslie Melville, Esq., was second (gardener, Mr. Curtis),

showing some very good blooms also. Messrs. Pope and Sons, King's Norton, were third; and Mr. F. A. Walton, Handsworth, fourth.

Twenty-five varieties of Daffodils: First, Mr. Henry B. Young, Metherington, Lincoln, with an exhibit of bright, fresh flowers. Among them were Barri Flora Wilson, Queen of Spain, incomparabilis Lulworth, poeticus ornatus, Ellen Barr, Crown Prince, J. B. M. Camm, Captain Nelson, Mme. de Graaff, Grandee, Glory of Leiden, and others; second, Rev. J. Jacob, Whitewell Rectory, Whitechurch, Salop. Barri conspicuus, John Nelson, J. B. M. Camm, and M. J. Berkeley were of the best. Third, Mr. J. H. Hartill, Arden Vale, Olton.

Twelve varieties of Daffodil seedlings (not in commerce four years): First, Miss Willmott, Warley, Essex, with a beautiful lot of recent and new varieties. Many of the latter received certificates or awards of merit, and are described elsewhere. Second, Messrs. Van Waveren and Sons, Haarlem, Holland, who also showed some good blooms.

Six varieties of Daffodil seedlings, all to be raised by the exhibitor: First, Mrs. R. O. Backhouse, Sutton Court, near Hereford. Two of the varieties obtained awards of merit, and are described elsewhere. Miss Spurrell, Hanworth, Norwich, was second.

Twelve varieties of trumpet Daffodils: First, Mr. J. H. Hartill, Arden Vale, St. Bernard's Road, Olton, with fine Mrs. J. B. M. Camm, Ard Righ, maximus, Emperor, Mme. Plemp, Glory of Leiden, and others; second, Mr. Henry B. Young, Metherington, Lincoln, whose Captain Nelson, Mme. de Graaff, and Glory of Leiden were the best; third, Messrs. Pope and Sons, King's Norton.

Six varieties of trumpet Daffodils: First, Rev. T. Buncombe, Penylan Rectory, Ruabon, with some excellent blooms; second, A. S. Leslie Melville, Esq., Branston Hall, Lincoln (gardener, Mr. W. Curtis); third, Rev. J. Jacob, Whitewell Rectory, Whitechurch.

Twelve Medio-Coronati varieties: First, A. S. Leslie Melville, Esq., Branston Hall, Lincoln (gardener, Mr. Curtis), with Gloria Mundi, Beauty, Catherine Spurrell, and Commander as the best; second, Mr. Alex. M. Wilson, East Keal, Spilsby, whose Lucifer and Gloria Mundi were very good; third, Mr. J. H. Hartill, Arden Vale, Olton, with good blooms also.

Six distinct varieties of Medio-Coronati: First, Rev. T. Buncombe, Penylan Parsonage, Ruabon; second, Mr. C. S. Branson, Coleshill Park Gardens, Coleshill; third, Rev. J. Jacob, Whitechurch; fourth, Mr. Deedman, Edgbaston.

Six varieties of Parvi-Coronati: Equal first, Messrs. Pope and Son, King's Norton, with Oriflamme, Picotee, and others, and A. S. Leslie Melville, Esq., with Blood Orange, Falstaff, &c.; third, Mr. Henry B. Young, Metherington.

Six varieties of true poeticus: First, Mr. Alex. M. Wilson, East Keal, Spilsby, with lovely blooms of Virgil, Almira, Dante, Homer, poetarum, and others; second, Mr. James Douglas, Great Bookham, with Horace, Chaucer, Burns, and Homer very good; third, Mr. H. B. Young.

There was only one exhibit in the class for six distinct varieties of Narcissus (bulbs not more than 3s. per dozen; prizes given by Messrs. Pope). First, Rev. T. Buncombe.

Twelve varieties with orange cups: First, Mr. F. A. Walton, The Friary, Handsworth, with Gloria Mundi, C. J. Backhouse, and others; second, Mr. James Douglas, with fine Albatross, Barri conspicuus, and Gloria Mundi.

### SEEDLINGS.

Twelve distinct varieties of Narcissus: First, Mr. E. C. Cartwright, King's Norton, with an excellent exhibit; second, Mr. S. S. Jones, Shropshire House, Prees; and third, Mr. Wyndham Brodie, Ellesmere, Wyde Green.

Six distinct Narcissi: First, Mr. John Sceaney, Harborne; second, Mrs. Muston, Edgbaston; and third, Mr. Herbert Smith, Birmingham.

Six varieties of Daffodils (first prize offered by Mr. F. W. Burbidge): First, Mr. A. R. Goodwin, Kidderminster, with Mrs. W. Ware, Barri conspicuus, Leedsi Gem, and Emperor as the best; second, Mrs. Muston, Twynning Road, Edgbaston;

and third, Mr. S. S. Jones, Shropshire House, Prees. This class was restricted to those who had never won a prize at any Daffodil show.

Six varieties of Daffodils: First, Mr. John Sceaney, Harborne, with very good blooms; second, Mrs. Muston; and third, Mr. Herbert Smith.

### MISCELLANEOUS.

Nine varieties of Tulips: First, Mr. R. C. Cartwright, King's Norton, with good blooms on long stems, Yellow Queen and Duchesse de Parma being the best; second, no name; and third, Mr. John Gregg, Bournville.

Twelve vases of hardy spring flowers: First, Mr. J. A. Kenrick, Edgbaston; second, Rev. J. Jacob, Whitewell Rectory, Whitechurch, Salop, who showed Freesia, which was marked by the judges as not hardy.

Group of cut Daffodils: First, Messrs. Pope and Sons, King's Norton, with a handsome and effective exhibit, the flowers arranged on a small round table; second, Miss Clarke, Ash Mount, Spark brook; and third, The Midland Spring Gardens, Northfield. This class was very well contested, and some pretty exhibits were arranged.

Bowl, vase, or centrepiece of Daffodils: First, Mrs. Martin, Lyndhurst, Erdington, with Barri conspicuus effectively and simply arranged; second, Mr. James Douglas, Great Bookham; and third, Mr. A. J. Kebrick, Edgbaston. Messrs. Pope and Sons were also given a first prize in this class for a bowl of Daffodils.

Bouquet of Daffodils: First, Messrs. Pope and Sons, King's Norton, with a handsome arrangement; a good second, Messrs. Felton and Sons, Hanover Square, W.; and third, Mrs. Muston, Twynning Road, Edgbaston.

Twelve pots of Daffodils: First, Mr. R. C. Cartwright, with finely-grown plants; and second, Mr. J. A. Kenrick.

Six pots of Daffodils: First, Mr. John Sceaney, Harborne; and second, Mr. W. L. Deedman, Edgbaston.

Six pots of Polyanthus Narcissus: First, Mr. R. C. Cartwright, with splendidly-bloomed plants; a good second, Mr. Deedman; and third, Mr. J. A. Kenrick.

Mr. Robert Sydenham, Tenby Street, Birmingham, gave prizes for three vases or bowls of Polyanthus Narcissus, and Messrs. Hogg and Robertson, Dublin, gave prizes for six pots of single Tulips. There were also classes for Lily of the Valley, Spanish Iris, Liliiums, and boxes of cut bloom.

### NON-COMPETITIVE EXHIBITS.

Messrs. Barr and Sons, King Street, Covent Garden, exhibited a group of Narcissi, in which Trumpet varieties were conspicuous. Mme. de Graaff was finely shown in large numbers, and Glory of Leiden, Emperor, King Alfred, Cloth of Gold, Peach, Apricot, Vesuvius, Lady Godiva, Sulphur King, and Aurantius were representatives of various sections. Messrs. Barr also showed a group of new seedlings, and among them we noticed Alabatross, Rhea (white perianth, rich yellow Trumpet), Loveliness, Agnes Harvey, Salmonetta, Sceptre, Egret, Apricot, Phoenix, Rosalind, and others, making a most attractive display. Gloria Mundi made a fine show in itself. Silver-gilt medal.

Messrs. Hogg and Robertson, Dublin, exhibited Tulips in great variety, and they made a brave show. The reds and scarlets were very fine, for instance, Belle Alliance, Vermilion Brilliant, Carlisle, T. ostrowskyana, Prince of Austria, and Imperator rubrorum. Light-coloured varieties were represented by Van der Temple, Suaveolens, Brunhilde, Princess Ida, Princesse Marianne, Snowflake, and others. Messrs. Hogg and Robertson also showed a collection of Narcissi, in which C. J. Backhouse, Mme. de Graaff, White Wing, Lady M. Boscawen, J. B. M. Camm, Leedsi Beatrice, Apricot, bifrons, and others were prominent. The blooms were well arranged, and made a pretty group. Silver-gilt medal.

Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, Notts, exhibited an extensive group of Narcissi, in which many fine flowers and good varieties were noted. Among the trumpets

were Glory of Leiden, Captain Nelson, Emperor, Sir Watkin, Weardale Perfection, and King Alfred. Others were incomparabilis Beauty, i. Frank Miles, C. J. Backhouse, Minnie Hume, F. W. Burbidge, Lulworth, Lucifer, Cyclops, Waterwitch, Maurice Vilmorin, Mary, Ellen Barr, and other beautiful varieties. Silver-gilt medal.

From Messrs. Dickson's Nurseries, Chester, was sent a brave display of Daffodils, many fine blooms among them. Doubles included albus sulphureus plenus, aurantius plenus, albus aurantius plenus; trumpets comprised King Alfred, Mrs. Walter Ware, Victoria, Mme. Plomp, and others. Elaine is a new ivory-white Leedsii of much charm. Bulbocodium conspicuum was very pretty with its large quaint blooms of rich yellow. Silver-gilt medal.

Messrs. Gunn and Sons, Olton, Birmingham, showed a bank of alpine and other plants lifted from the open ground. Anubrietas, Saxifragas, blue Primroses, Violas, Heuchera, Iberis, Erica, Celosia pontica were among them. Messrs. Gunn also showed some bouquets of Roses and baskets of Carnations. Silver-gilt medal.

From the bulb farm of Sir Josslyn Gore-Booth, Bart., Lissadell, Sligo, an attractive exhibit of Narcissi was sent. In addition to many well-known sorts we noticed Nelsoni, Lady Gore-Booth (white perianth with lemon yellow cup, incomp.), Lady Arnott, J. M. Berkeley (rich yellow trumpet), Burbidgei Baroness Heath, bicolor of Haworth (incomp.), Queen Sophia, Barri Flora Wilson, and others. Silver medal.

Messrs. Reamsbottom and Co., Alderborough Nursery, Geashill, King's County, Ireland, exhibited the Alderborough strain of the double St. Brigid Anemones, and they made a very attractive group. We have rarely seen them brighter. There were blue, scarlet, purple, pink, crimson, and white, and the flowers were arranged with their own greenery upon a white ground. Silver gilt medal.

The Misses. F. W. Currey, the Warren Gardens, Lismore, Ireland, exhibited Daffodils in variety, the white blooms being noticeably pure. In Ellen Barr, Marvel, Ossian, Cassandra, poeticus poetarum, Epic, Rosalind, Sequin (this was especially marked), Maurice Vilmorin, Jonquil Jonquilla, Frank Miles, Lucifer, Redstar, Katherine Spurrel, Marina, and White Lady were among other beautiful flowers. Silver medal.

Messrs. Hewitt and Co., Solihull, Birmingham, exhibited some excellent Carnation blooms in vases. Mrs. Lawson was perhaps the best. Silver medal.

Mr. Robert Sydenham, Tenby Street, Birmingham, exhibited Tulips, Daffodils, and Spanish Irises growing in pots in moss fibre without drainage. The vases are filled with the new moss fibre and ground shell, with a few small lumps of charcoal at the bottom. All bulbs, such as Hyacinths, Tulips, Iris, and especially Narcissus, do well treated this way, and make useful and charming table decoration. Large silver medal.

Many beautiful hybrid and seedling Narcissi of his own raising were shown by the Rev. G. H. Engleheart, Dinton, Wilts. Those that obtained awards are described elsewhere.

Messrs. Felton and Sons, Hanover Square, W., showed a handsome bank of plants and flowers very tastefully set up. The vases of Carnations, Orchids, and Roses, as well as pot plants of Ericas, Genistas, Verbenas, &c., combined to make an attractive display. Gold medal.

Messrs. W. K. Simpson and Sons, Birmingham, showed a group of miscellaneous Narcissi plants growing in pots, as well as cut blooms. Silver medal.

Messrs. Gilbert and Son, Bourne, Lincolnshire, made a very bright display with Anemones, A. coronaria King of Scarlets being especially fine and telling. Silver medal.

Messrs. J. W. Cross, Wisbech, displayed Narcissi, Tulips, and Anemones extensively, making a bright exhibit. Some of the Tulips were very handsome, and the trumpet Daffodils were good also. Silver-gilt medal.

Messrs. B. R. Cant and Sons, the Old Rose Gardens, Colchester, exhibited their new seedling climbing Polyantha Rose Blush Rambler. The

plants were in pots and bore an abundance of bloom. Silver medal.

The Misses Hopkins, Mere, Knutsford, Cheshire, showed a pretty group of bardy flowers, and prominent among them were the beautiful pink Daisy Alice and the large yellow Auricula Alexandra. Primulas and Polyanthuses were well represented. The blue Primroses were very good, as also were the double white ones and the double purple Marie Choune. Anubrietas Dr. Mules and Saxifraga Rhei were also prominent.

Mrs. J. G. Thompson, Handsworth, exhibited a group of Cactaceous plants. Silver medal.

From the Midland Spring Gardens, Northfield, was shown a small group of Narcissi in variety.

An award of merit was given to Mr. J. Kingsmill, Ripon, for choice Narcissi, and to Mr. W. A. Watts, St. Asaph, for Polyanthus.

#### AWARDS.

A first-class certificate was granted to each of the following Narcissi:

*Great Warley*.—A bold and striking trumpet variety, perianth dull white, almost transparent, the trumpet a good yellow with wide mouth. From Miss Willmott, Warley Place, Essex.

*Moonstone*.—A triandrus hybrid, one of the parents being Minnie Hume. The flat or slightly recurving perianth is sulphur-white, as also is the prettily dentated cup. From Miss Willmott.

An award of merit was granted to each of the following Narcissi:

*Saladin*.—A trumpet flower not unlike a large Mme. de Graaff, the trumpet, however, is rather a deeper colour (pale lemon), it recurves at the mouth. From Mr. E. M. Crosfield, Little Acton, Wrexham.

*Maud Marion*.—Much like Mme. de Graaff, the trumpet is sulphur colour and the perianth rather lighter. From Mr. E. M. Crosfield.

*Count Visconti*.—A beautiful Johnstoni form, deep lemon yellow, the long straight trumpet rather a deeper shade than the perianth. From Miss Willmott.

*Warley Scarlet*.—This has sulphur-coloured perianth, and the flat cup is yellow with an intense orange-scarlet edge, which is very striking. From Miss Willmott.

*Snowdrop*.—A lovely Johnstoni hybrid of an uniform sulphur-white throughout perianth and the long straight trumpet. From Miss Willmott.

*Furstin Maria Oettingen*.—A bicolor Johnstoni with creamy white perianth and rich lemon-yellow trumpet rather wide at the mouth. From Miss Willmott.

*Janet Image*.—A large and beautiful Leedsii form with white perianth and orange cup. From Messrs. Barr and Sons, King Street, Covent Garden.

*Snow Elf* and *White Knight*.—Shown by De Graaff Brothers, Leiden, Holland. We were unable to find these.

*Dainty*.—A Johnstoni hybrid with deep lemon-yellow trumpet and paler perianth. From Mrs. R. O. Backhouse.

*Ethelbert*.—A fine poeticus form with white, rounded perianth segments and yellow cup with deep orange-coloured rim. From Mrs. Backhouse.

*Fearless*.—A bicolor incomparabilis with creamy white perianth and golden cup crinkled at the mouth. From Rev. G. H. Engleheart.

*Goldeye*.—Belonging to the Engleheartii section. The large, flat, rich yellow cup with orange rim is strikingly effective in association with the white perianth. From Rev. G. H. Engleheart.

*Acme*.—A poeticus hybrid with pure white perianth and flat orange-red cup. A handsome flower of fine form. From Rev. G. H. Engleheart.

*Epic*.—A large poeticus form with orange-crimson edged cup. From Rev. G. H. Engleheart.

*White Muticus*.—A botanical certificate was awarded to this. Shown by Rev. S. E. Bourne.

*Rose Mme. Leravasseur*.—A first-class certificate was given to Messrs. Felton for this Rose.

*Carnation Leander*.—A tree Carnation. From Messrs. Felton. First-class certificate.

#### ANNUAL DINNER.

Annually, on the evening of the first day of the exhibition of this society, Mr. Robert Sydenham and Mr. John Pope entertain to dinner the

principal exhibitors, judges, and visitors. On Tuesday evening last a large gathering assembled at the Old Royal Hotel, Birmingham, in response to the invitation. Mr. Robert Sydenham presided, and was supported by Miss Willmott, Professor Hillhouse, Rev. G. H. Engleheart, and Rev. S. E. Bourne. Others present were: Miss Currey, Rev. J. Jacob, Messrs. J. Duncan Pearson, W. A. Watts, W. B. Latham, H. B. Young, P. Rudolph Barr, F. W. Burbidge, A. R. Goodwin, T. Humphreys, James Douglas, de Graaff, Waveren, Jeeves, R. Dean, W. P. Wright, and many more.

After the chairman had given the loyal toasts, Professor Hillhouse proposed "The Judges and Exhibitors," the Rev. S. E. Bourne and Mr. J. D. Pearson responding.

Mr. F. W. Burbidge proposed "The Midland Daffodil Society," and Mr. Robert Sydenham replied. Mr. Sydenham proposed "The Visitors," and Mr. W. P. Wright, who replied, said how much everyone appreciated the hospitality shown by Mr. Sydenham and Mr. Pope. Other toasts proposed were "The Foreign Visitors," replied to by M. de Graaff, and "The Chairman."

After dinner Mr. P. R. Barr made some remarks on "The Present Classification of the Narcissus Family." Mr. Barr said the two most important questions with reference to this subject were how to classify those flowers with flat, disc-like crowns and the triandrus hybrids somewhat resembling Leedsii. As Mr. Bourne had already mentioned, said Mr. Barr, it was felt by several that the former should be placed in a section to be called Engleheartii, subject to Mr. Engleheart being agreeable. It was also suggested that as Miss Willmott possessed the stock of most of the triandrus hybrids and exhibited them they should form a class to be known as Willmottii. If not, said Mr. Barr, they would have to be included with Leedsii. Those of the Engleheartii section had been judged to be parvi-coronati, not medio-coronati.

The Rev. G. H. Engleheart, after referring, as Mr. J. D. Pearson had done, to the greater pleasure, comfort, and convenience of this Birmingham meeting than the Drill Hall meetings of the Royal Horticultural Society, went on to say that many of the present-day Narcissi defy classification. Hybridising has only rarely just commenced, and, when in future years the hybrids of to-day shall have given rise to still other hybrids, a new classification made now will be quite inadequate then. He was content to leave this matter of classification with others, and humorously remarked that he wished them good luck in their task. The speaker said he looked upon the trumpet Daffodil as almost perfect, and regarded it rather as a means to the production of better things. Mme. de Graaff was a most valuable flower; it was a great advance upon Emperor and Empress. Some said that the Daffodil craze would pass away, but he thought there was no fear of this, as there was no other hardy spring flower to take the place of it. Speaking about minor cultural points, Mr. Engleheart said he should like to hear whether other growers thought it best to leave bulbs in the ground for one or two years.

Mr. F. W. Burbidge said he knew of two places—one in England, the other in Ireland—where the finest Daffodils were grown not in a border, but on grass land. He thought that the finest Narcissi of the future would come from moist grass land. The Daffodil is a water-loving plant. Mr. Burbidge thought that the public taste now favoured large flowers too much, and that the more beautiful ones will not be fully appreciated until the public taste is educated up to them.

The Rev. J. Jacob said that he understood from Miss Currey that Daffodil bulbs which had been in the ground two years forced into bloom some ten days sooner than those taken up annually.

Miss Currey thought that by leaving the bulbs in the ground two years they started earlier into growth the second year, ripened earlier, and consequently bloomed earlier.

Mr. Pearson had found that bulbs two years planted passed through a wet season better than those planted annually, and he thought the reason to be that they were better established.

# THE GARDEN

No. 1694.—Vol. LXV.

[MAY 7, 1904.]

## PREPARING FOR SUMMER.

**S**ELDOM, if ever, has the weather encouraged a fairer display of early flowers than has been seen this spring. Whilst the public enjoy this rich colouring, the gardener and those responsible for providing an unbroken succession of beauty from spring to late autumn know only too well preparations must be going forward for summer. The term summer bedding refers more particularly to the decoration of the flower garden with such things as are planted annually for this purpose, whether hardy or half-hardy, and are specially intended to produce either brilliant floral colour effect in themselves, or in combination with plants of rich and beautiful foliage, or plants of handsome form and habit of growth. The plants used for this purpose are usually common enough, and by some garden enthusiasts are considered too commonplace to be worth a second thought. The subject may conveniently be classed under three heads—namely, first, the planting in masses of dwarf plants of brilliant colours in the flower garden; second, a combination of dwarf plants, either foliage or flowering, of brilliant colouring, with taller plants planted singly or in groups amongst the dwarf ones; third, the massing and grouping of bold, ornamental, exotic, or hardy foliage and flowering plants in order to produce a rich, bold, and tropical effect. As regards the first the zonal Pelargonium still stands unrivalled in usefulness, whether for the flowers of the green foliaged varieties or for the foliage and flowers combined of the silver, variegated, bronze, and tricolors. In the Begonia of late years, through the improvement wrought in many sections of these plants by the late Mr. John Laing and others, a valuable addition has been made to the list of summer bedding plants. The Pansy is another plant which has been greatly improved of late years, and is indispensable in the garden. The Calceolaria and the following among a host of others may be mentioned as serviceable: The Verbena, especially those of distinct colours, such as Miss Willmott, Heliotropes, Marguerites, Petunias, Phlox Drummondii, Fuchsias in variety, Lobelias, Celosias, and many others.

The form and size of the garden to be planted must first have consideration. If arranged in a geometrical design, so many beds balancing one another, it is usual to plant them in pairs in duplicate colours. But if the garden is less formally laid out, then the effect is more

pleasing by the introduction of greater variety of plants in a bed, but bold masses of some single colour. Indeed, in the arrangement of dwarf plants for distinct colour effect, the chief point to bear in mind to secure success is to avoid having too many varieties of plants in combination in any one bed. A bed planted with Bright Star silver-variegated Pelargoniums, 1 foot apart, with a pale blue Viola planted between as a groundwork, edged with a broad band of Alternanthera, makes one of the prettiest beds. A simpler combination still is a bed of Brighton Gem Pelargoniums (in colour bright scarlet), with a bold edging of Centaurea. Another pleasing and effective association is to be had by planting the old Ivy-leaved Pelargonium Manglesi among a groundwork of Verbena venosa, the bed being edged with a broad band of Cerastium tomentosum. Take, again, a harmony in gold, bronze, and white. Here an excellent effect may be produced by planting good plants of the best varieties of Celosia, edging the bed with the pretty Ribbon Grass Dactylis glomerata. Where it is desired to have a bed of a claret shade of colour, nothing gives better effect than the old Coleus Verschafeltii. Others might be mentioned, but enough has been indicated to help the learner to arrange further beautiful and harmonious combinations of colours for himself out of the abundance of material available.

Beds planted with a groundwork of dwarf plants, with taller growing specimen plants between, are well worth introducing to this style of planting, in conjunction with the method above described, however small the garden may be. If the work is to be a success too many sorts of plants in a bed must be avoided, and some simple arrangement taken advantage of. As instances we may mention a few examples, say a groundwork of Geranium Flower of Spring, silver variegated, with specimen plants of Acalypha macafeeana 3 feet high, and planted 3 feet apart. The bronze foliage of this plant is most effective with the silver variegated Pelargoniums. This, with a broad edging of Gazania splendens or Tagetes pumila makes a very pretty bed. Another example of this style of bedding is the following: Some variety of scarlet Pelargonium as groundwork, planted 1 foot apart, with standard plants of Fuchsia Ballet Girl, one of the best light varieties of recent introduction, planted at intervals of 2½ feet or 3 feet, edging the same with Konigia maritima.

Standard Heliotrope or pyramid plants of Plumbago capensis, planted in a carpet of a pink Ivy-leaved Pelargonium, give a beautiful result. There are many other plants both dwarf and tall which may be utilised together in this way, and which will suggest themselves as the work proceeds.

*(These notes will be continued next week.)*

## THE EDITOR'S TABLE.

### NARCISSI FROM IRELAND.

Mr. W. Baylor Hartland sends from his bulb grounds at Ard Cairn, Cork, some beautiful seedling Narcissi, chiefly poeticus, Barri, Burbidgei, and Nelsoni hybrids. The colouring of some of the crowns or cups is very brilliant, the shades of orange and scarlet very beautiful, and associate most effectively with the creamy white or white perianths. Mr. Hartland also sends Daffodil Erin, a large double flower, similar to the old Butter and Eggs, but much finer. The flowers are larger and are produced on long, stout stalks well above the foliage.

### POLYANTHUSES FROM COBIAM HALL GARDENS.

Mr. F. R. Cuckney sends from Gravesend a box of bunch Polyanthuses and Acer in flower, with the following remarks: "Our Polyanthuses are delightful, especially in masses. The Acer gives quite a glow of colour, even amidst the varied shades of green we have in such beauty at this season."

The Polyanthuses were of remarkable rich colourings, the reds in particular. A very beautiful race, and the Acer is a reminder of the quiet but very beautiful flower colouring of many of our forest trees.

### NARCISSUS LEEDSI ELAINE.

Messrs. Dickson of Chester send flowers of a beautiful form of Narcissus Leedsii named Elaine. It was raised by the Rev. G. H. Engleheart, and received a first-class certificate from the Royal Horticultural Society on May 7, 1901. The flower is graceful and of exquisite colouring, a tender lemon shade, with deeper cup. It looks frail, but this is simply from its gracefulness and lovely colouring—a flower to grow in quantity for the house. At present the bulbs are two guineas each, and will be distributed by Messrs. Dickson in the autumn.

### TULIPA GREIGII.

Mr. Arnold sends from The Gardens, Cirencester House, Cirencester, superb flowers of this Tulip, with the following interesting note: "I am sending herewith the above Tulip for your table. I think you will agree with me that it is one of the finest species of Tulip ever discovered. Its colour is so fine and the general form of the flower is so good that it always arrests attention. Perhaps it requires a little more attention than we give to the general collection of Tulips. It should be carefully harvested each year. The plants should be allowed to thoroughly complete their growth and the foliage well on the way to decay

before the bulbs are lifted, and then they should not be exposed to the full glare of the sun immediately after being taken from the soil. Do this gradually. They must be well baked in the full sun and afterwards stored in a little dry ashes in shallow boxes in a cold but thoroughly dry room. Damp will prove fatal to them. Plant again in fine weather in September and not later, as this Tulip flowers early, ripens early, and will, consequently, lose vitality if kept out of the ground after September very rapidly. Every little bulblet should be saved, for in this respect it is rather shy in producing these."

#### POPPY ANEMONES.

Mrs. Wakeman-Newport, Hanley Court, Tenbury, Worcestershire, writes: "I am sending you a few flowers of Anemones and Wallflowers for your table. The Anemones are some of Reamsbottom's Irish ones, and seem to flourish well in this garden, which is nearly 700 feet above sea level. They are grown in a border facing south, in stiff, loamy clay. We plant the bulbs in September, lifting and resting them when the foliage has died down for a couple of months. The Wallflowers are from Sutton's Superb Mixed and Cloth of Gold seed."

A beautiful gathering of Anemones. We have on more than one occasion described this strain. The colours are wonderfully rich and varied, and we wish the plant would grow in all gardens. The Wallflowers were of decided colours, the yellow particularly rich.

#### VERBENA MISS WILLMOTT.

Mr. A. Derry, The Gardens, Fairford Park, Fairford, Gloucestershire, sends flowers of this well-known Verbena, one of the most welcome of its race, either for the greenhouse or for the open garden. It is largely grown for the market. Mr. Derry says: "I have a fine group of plants in flower in 5-inch pots, and I find it most useful for the house and conservatory at this time of year." The fresh salmon-pink of the flowers is delightful.

#### POLYANTHUSES FROM TORQUAY.

Miss Mitchell sends from the School of Horticulture, Torquay, some exceptionally fine varieties of Polyanthuses, the colours decided and varied. A warm red was particularly welcome.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

May 11.—East Anglian Horticultural Club's Meeting; Royal Botanic Society's Horticultural Show.

May 17.—Royal Horticultural Society's Drill Hall Meeting.

May 19.—Bath and West of England Horticultural Show at Swansea (five days).

May 25.—Edinburgh Spring Show (two days).

May 30.—Kew Guild Dinner.

May 31.—Royal Horticultural Society's Temple Show (three days).

**Royal Horticultural Society.**—The next fortnightly show will be held at the Drill Hall on Tuesday, the 17th inst., and in conjunction with which the Royal National Tulip Society will hold their Southern Division show. Separate classes are provided for Tulips of all kinds and varieties, including feathered, flamed, rectified, breeder kinds, and bizarre, rose, byblømen, and other types. A lecture will be delivered by Mr. R. Hedger Wallace on the "Horticultural Phase of Nature Study."

**Temple Flower Show.**—The Royal Horticultural Society will hold its seventeenth great annual flower show in the Inner Temple Gardens, London, E.C. (by the kind permission of the Treasurer and Benchers) on the 31st inst. and June 1 and 2. Intending exhibitors can obtain a schedule, with entry form, &c., on application to the Secretary, Royal Horticultural Society, 117, Victoria Street, Westminster. A penny stamp should be enclosed to cover postage.

**The Gardeners' Association.**—We have received a leaflet from Mr. Watson, Descanso House, Kew, entitled "Plea for a Gardener's Association," but owing to pressure on our space we cannot refer to it more fully now. We hope to give fuller particulars next week.

**Polyanthuses and Primroses from St. Asaph.**—One of the most interesting exhibits at the Drill Hall on Tuesday last consisted of the Polyanthuses and Primroses from Mr. W. A. Watts, Bronwylfa, St. Asaph. These received a first-class certificate at the National Auricula and Primula Show at Birmingham on April 26. The colours are pure and distinct. There are many strains of these flowers in existence now, and this is one of the finest.

**Royal Gardeners' Orphan Fund.**—The sixteenth annual dinner will take place at the Hotel Cecil, Strand, W.C., on Tuesday, the 17th inst., under the presidency of Sir Trevor Lawrence, Bart., K.C.V.O., president of the Royal Horticultural Society. The Secretary, 30, Wellington Street, Strand, will be glad to hear from anyone wishing to be present.

**Tritonia Prince of Orange,** shown by Miss Willmott at the Royal Horticultural Society's meeting on Tuesday last, and given an award of merit, is a flower of rich beauty. Its freedom is remarkable, and the strong stems bear many flowers of a wonderful orange red colouring. It is a flower for all gardens.

#### Descriptive List of Garden Plants.

Many readers of THE GARDEN may be glad to know that a list of the new garden plants brought into cultivation every year is published as an appendix of the *Kew Bulletin*, and may be purchased at the Gardens, price 4½d. if sent by post. A list of this kind has been prepared and published at Kew for many years, and in 1900 an alphabetical descriptive list of all the new plants introduced to cultivation in the years from 1876 to 1896 was published as an additional series to the *Bulletin*, its price being 4s. This and the annual lists for the years from 1896 to the present form a most useful index to cultivated plants of all kinds. For instance, in the 1876-96 list there are 7,600 plants briefly described, and a reference is given in each case to the original description, with, in many cases, a reference to a figure. The number in each annual list is now about 500. That for 1903 has just been published. It includes not only plants brought into cultivation for the first time during the year, but the most noteworthy of those which have been reintroduced after being lost to cultivation. All species, varieties, and hybrids with botanical names are included, and where the published name is not correct or is a synonym a correction is given in brackets. The name of the person in whose collection the plant was first noticed or described is given. The following may be taken as examples of the information given with each plant: "Tulipa prestans (*Botanical Magazine*, t. 7,920; *Gardeners' Chronicle*, 1903, Vol. XXXIII., page 364; *Garden*, 1903, Vol. LXIII., page 240).—A new early-flowering species nearly allied to *T. suaveolens* and *T. kaufmanniana*. The leaves and peduncles are covered with minute white hairs. Perianth segments all uniform in shape, elliptic, somewhat pointed, light scarlet-vermilion, with yellow at the base. Bokhara. Van Tubergen, Haarlem. *Cattleya sylvanus* (*Garden*, 1903, Vol. LXIV., page 408). A garden hybrid between *C. Alexandre* and *C. labiata*. R. J. Measures."—W. W.

**Early Tulips at Birmingham.**—On the occasion of the annual exhibition of the Midland Daffodil Society at Birmingham it is possible to see some of the leading varieties of early single Tulips grown to great perfection and exhibited in a manner which challenged general admiration. There was a class for nine varieties shown in bunches in their own foliage, six blooms in a bunch was the maximum number, and they were tastefully set up in vases. For this purpose strong-stemmed varieties of the white Pottbakker type are necessary, as weak-stemmed varieties would result in the blossoms falling down over the sides of the vases. Such varieties as Unique (in beautiful character), Joost van Vondel and its white variety,

Keizer's Kroon, Fabiola, M. Tresor, Duchesse de Parma, Cerise Grisdelin, Spaendock, and Proserpine were among the leading varieties grown in this way. In the class for six varieties grown in pots not to exceed 7 inches in diameter, six bulbs being placed in a pot, some very fine examples were staged, the blooms of the following being noted: Unique, one of the most beautiful introductions of late years; a white Pottbakker with a flame of yellow running up each petal; Keizer's Kroon, the largest of the early Tulips, and one of the very best for pot culture or bedding; Van Spaendock, cherry rose, with plentiful flakes of cream striking through the petal edges, very distinct; Golden Queen, a very fine deep yellow, probably the largest of all the yellow Tulips; Fabiola, striped and flaked deep violet and white, a very fine variety when well grown; Joost van Vondel, deep rosy red, feathered and flaked with white, a large deep flower; also its white variety, White Joost van Vondel, the largest of the early white Tulips, and a very fine subject for pot culture; Queen of the Netherlands, a large and beautiful variety, white tinted with blush or pink, extra fine for pots; Proserpine, carmine-rose, extra fine; and American Lac, a distinct and novel variety, a mixture of salmon, rose, and delicate tints of pink and mauve. These were shown in 8½-inch pots, and they were grandly grown and bloomed. Probably something is owing to the fact that they are grown from selected bulbs, certainly the incitement of competition results in the production of splendid blooms, and demonstrating the possibilities of the early Tulip when subjected to high cultivation.—R. DEAN.

**The Departmental Fruit Committee** appointed by Lord Onslow to enquire into and report upon the Fruit Industry of Great Britain held sittings on the 27th, 28th, and 29th ult. The following members were present; Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Monro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, and Mr. Ernest Garnsey (secretary). The following witnesses gave evidence: Mr. F. King, of St. Ives, Hunts; Mr. Spencer Pickering, M.A., F.R.S., a member of the committee; Mr. C. D. Wise, of Taddington, Gloucester; Mr. John Idiens, of Evesham, Worcester; Mr. W. Templeton, of Netherburn, Lanarkshire; Mr. George Sinclair, of East Linton, Midlothian; and Mr. James MacDonald, of Welton, Blairgowrie.

#### School teachers' examination in cottage and allotment gardening.

The Royal Horticultural Society will hold an examination in cottage gardening on Tuesday, June 21 next. This examination is intended for and will be confined to elementary school teachers. It has been undertaken in view of the increasing demand in country districts for schoolmasters capable of teaching the elements of cottage gardening. This examination will be on similar lines to that of the more general examination. A copy of the syllabus with full particulars may be obtained by sending a stamped and directed envelope to the Secretary, Royal Horticultural Society, 117, Victoria Street, Westminster.

**Magnolia conspicua in spring at Syon.**—Owing to the favourable weather and absence of frost these trees this season are flowering well. I have never seen the noble trees at Syon better, though where the flowers are much exposed to the north-east the colouring is less pure. *M. conspicua* flowers profusely in a sheltered position; the big chalice-like cups are much liked. The trees alluded to are of a good age. So far we have never lost any branches by severe weather, and I have observed after a warm summer that the new wood is much firmer and the flowers of greater substance and larger, though there is always the same wealth each year. Shelter from cold winds is needful in exposed gardens. I have grown them more as bushes than trees, with a good background of evergreens, and they are most effective. A few years ago we planted some of the newer introductions, but so far they do not seem quite at home, as the growth is very slow. Such kinds as *M. acuminata* grow well, but the trees do not flower freely.—G. WYTHES.



**Daffodils and Narcissi in an old orchard.**—I think a note on this subject may interest readers of THE GARDEN, as by judicious planting many old orchards may be made beautiful quite six weeks before the fruit trees are in flower. Here we plant them in uneven and irregular groups; the effect is charming, and I have no hesitation in saying that they give more delight to those who see them than almost any other plant in the garden. The varieties we grow are Emperor, Empress, Sir Watkin, Horsfield, white Stella, yellow Stella, princes, Barri conspicuus, and the most beautiful poeticus ornatus, the display finishes with the May flowering Tulips.—J. S., Berks.

**Judging Grapes by points.**—I gather from the note on this subject written by Mr. Leadbetter that he infers because in the case of Muscat of Alexandria Grapes at Shrewsbury, for instance, eleven points constitute the maximum, that therefore eleven diverse features must be found in the Grapes in question. Surely that is not the case. If, for instance, flavour be appraised in this fine Grape by three points, and two each are given to appearance of bunch, size of berry, colour, and finish, all the primary points in such a Grape obtain recognition, and it cannot be difficult for expert judges to apportion these points justly. But it does not follow that all Muscat Grapes, even Muscat of Alexandria, always merit the award of eleven points. Even if flavour be there, some other feature may be imperfect. That a greater number of points should be given to flavour than to any one other feature is natural, but even flavour, let it be ever so good, cannot dominate indifferent culture or appearance. I expect Mr. Leadbetter knows the points of Grapes as well as anyone does after all.—D.

**Forsythia and Muscari.**—A bed of Forsythia suspensa is in itself a beautiful sight; in the Royal Gardens, Kew, there are large beds of this shrub that are a prominent feature in the garden landscape. Even from a distance it is easy to distinguish them; the graceful, semi-pendent shoots are wreathed with yellow bell-like flowers, and produce an effect that is hardly surpassed by any other shrub now in flower. The surface of the beds is covered with the growth of an early blooming dwarf bulbous plant, presumably Scilla, which, of course, is now out of flower. It occurred to me that if, instead of Scilla, Muscari conicum had been planted, their rich blue flowers would have associated well with the golden yellow of the Forsythia blossoms. Possibly they would not thrive well beneath the rather closely-planted Forsythias, but, judging from the many positions I have seen them in, I should imagine that they are to a large extent indifferent as to situation. If Muscari were planted in place of the Scillas the display of flowers would not, of course, be continued over so long a period, but I venture to suggest that when such an opportunity for a pleasing association of plants occurs it is too good to be missed.—A. H. P.

**Fruit trees and flowers.**—In the Lincolnshire market gardens no ground is allowed to remain idle; I had almost said that no ground surface is uncovered. There are acres of Plum and Apple orchards, and between the rows of the standard fruit trees are planted, in some cases bush fruits, in other cases flowers, more especially spring flowers. Besides the value of these plants as market produce, they make brilliant bits of colour in the orchards now, and with the trees in full blossom, and masses of such things as Muscari, Polyanthuses, Tulips, Forget-me-nots, Fritillarias, &c., in between the rows, a charming picture is the result. Nothing more attractive can be imagined than some of the orchards of Plum trees, smothered with their small pure white blossoms and the ground beneath covered with a pale blue carpet of Forget-me-not or the richer blue of Muscari conicum. These early-flowering plants seem to do well in such a position; they are able to make good growth before the fruit trees become clothed with foliage.—A. H. P.

**Glasgow parks.**—At a meeting of the Town Council of Glasgow, on April 21, a letter was read from Mr. Hugh Reid, Belmont, Springburn,

in which Mr. Reid said that he desired to hand over to the Corporation of the city his house at Mosesfield, with the adjoining wooded grounds, for inclusion in Springburn Park. The grounds extend to about two acres, and it was stated by Mr. Bilsland, convener of the parks committee, that this gift would enable the laying out of Springburn Park to be completed as originally intended. The Lord Provost (Sir John Ure Primrose) said that he was sure he expressed the minds of the Corporation when he said they gratefully accepted the munificent offer of Mr. Reid. Mr. Reid suggests that the ground floor of the house should be set apart for the public as a resting-place, and for such games as chess, and that simple refreshments should be sold there also. The gift will be a great addition to the attractions of the Springburn Park. At the same meeting of the Town Council it was agreed by a majority to accept the recommendations of the parks committee that they be authorised to take over from the Improvements Department about 10,000 square yards of ground to the east of Park Avenue, which, if built upon, would have spoiled the vista of Kelvingrove Park. The value of the land is said to be about £12,000.

**Arctotis aspera.**—This is one of the most striking of plants in the No. 4 greenhouse at Kew just now. It is a bushy plant some 3 feet to 4 feet high, with handsome leaves and brightly coloured flowers. The leaves are 6 inches to 8 inches long and silky underneath, and the flowers about 4 inches in diameter, the ray florets being of rich orange-yellow colour. This brilliant colouring is noticeable at a considerable distance. It is not at all difficult to grow, succeeding under much the same treatment as a Pelargonium, but only as a large plant is this Arctotis seen at its best. The date of its introduction is given as 1710, so that it must be entitled to a place among the oldest of South African plants. The nomenclature of the members of this genus is in such a confused state that any attempt to unravel it by means of books only leads to greater confusion, as authorities differ so greatly. Over twenty years ago a coloured plate of *A. aureola* appeared in THE GARDEN, and the name occurs in many lists, including the last supplement to the "Dictionary of Gardening," but in the "Kew Hand List" only two names are given, viz., *A. aspera* and the pretty little *A. acanthis*. *Arctotis aureola* is there referred to as *A. aspera*.—H. P.

**Fritillaria imperialis (Crown Imperial).**—The Crown Imperials are now at their best. It is difficult to understand why they are so seldom seen, as at this early season they have a distinct value. Ours are not of any particular variety that we are aware of, but appear to be good forms of the yellow and orange-red. In the first instance we had only six bulbs of each sort, and two years since we lifted and divided them, and they gave us quite a lot of bulbs of various sizes. Last season some of the larger ones flowered satisfactorily, but during the month of April they developed well, and at the time of writing (the 20th ult.) there is a large and handsome group of plants, with stately spikes of growth, crested by large, dense whorls of drooping bell-like flowers. Its curious odour, perhaps, is against it, but in a large border this does not matter. Each year we try a few plants in 9-inch pots, and their effect in the conservatory is very striking. The glass structure is freely ventilated, and by this means the temperature is kept down.—D. B. C.

**Feijoa sellowiana.**—About half a dozen years ago attention was directed to this shrub as a new fruit for such districts as the countries bordering on the shores of the Mediterranean. Being a native of southern Brazil it is far from hardy in this country. Judging by a specimen in the economic house at Kew, where it is trained up the glass at the end, it well merits recognition, for the flowers are showy, very distinct, and produced over a long season. The rather slender branches are clothed with oblong-shaped leaves, 3 inches to 4 inches in length, while the most conspicuous feature of the flower is, as in many of the Myrtaceæ (to which this belongs), the cluster of long prominent brightly coloured stamens. The individual

flowers are about 2 inches across, and composed of four fleshy petals of a curious hooded shape. These petals are purplish inside, and almost white on the exterior, but owing to their hooded shape the interior is almost hidden by the incurving of the edges, thus exposing the paler tint outside. The long slender filaments, arranged in a brush-like cluster in the centre of the flower, are bright red with yellow anthers. Whether the specimen at Kew will fruit remains to be seen, but at all events it merits more than a passing notice as a flowering shrub for the warm house. Regarding the early history of this Feijoa it was introduced by M. Ed. André in 1890, though it has been known to botanists long previous to that. Its native country is southern Brazil and Uruguay, where it is said to attain the dimensions of a large shrub or small tree. Separated only from the Guava (*Psidium*) by slight botanical features, its fruit is said to be yellowish green in colour, egg-shaped, Guava-like, richly perfumed, and of a delicious aromatic spicy flavour. As far as I know it has not yet fruited in this country, but as above stated this is compensated for by its flower beauty.—T.

**Chrysanthemum Mrs. J. Dunn.**—A few days ago I saw a lot of plants of this new Japanese variety, and from appearances it cannot be spoken of too highly. There were quite 100 plants in the earliest batch, and they were strong, short-jointed, and had stout foliage. Among the many good varieties seen last season for the first time, this was one of the most promising, and by some it was considered to be one of the best Japanese seen since the introduction of the famous Mme. Carnot. In Mrs. J. Dunn the petals are very long, droop gracefully, and are quite white.—C.

**Tufted Pansy Mrs. E. A. Cade.**—Of the rayless yellow tufted Pansies this is one of the best. Its growth is strong and sturdy, and the plant has flowered throughout the winter. This is saying a great deal, as there are only a very few sorts that will give anything like so good a result. At the present time the plants, both young and old, are flowering in profusion, and the rich and bright shade of yellow peculiar to this variety has a charm that few others possess. The flowers develop on a stout, erect foot-stalk well above the leaves, and they are very fragrant. When used for some of the smaller vases and bowls they are quite refreshing indoors.—C.

**Edinburgh Royal Botanic Gardens.**—Within the last few months a considerable number of improvements have been made in the Royal Botanic Gardens, Edinburgh. New paths have been made, a work which has necessitated the removal and replanting of a number of fine specimen trees. The tree lifting appliances of the establishment are, however, well adapted for such work, and the trees have been most successfully dealt with. Visitors to the gardens this season will also observe that a number of shrubs are now set apart for the use of students. This will not only add to the value of this part of the gardens for botanical study, but will increase the effect of the beds. In the arboretum a number of changes have been made for the purpose of grouping together plants of the same genus. Thus the genus *Ilex* is represented by a splendid collection of Hollies, grown together instead of scattered over the grounds, the same arrangement being made with other genera also. A number of structural improvements which have been in progress for some time are approaching completion. Among the minor improvements is one which will be found very convenient. This is the introduction of electric light into the potting sheds, offices, and other buildings. This will be of great service in many ways, and the arrangement of the potting sheds could not well be improved upon.

**Hypocalymma robustum.**—The Australian flora is wonderfully rich in the Myrtle family, well-known examples being found in such genera as the *Beaufortias*, *Callistemons*, *Eucalyptus*, *Darwinias*, *Metrosideros*, and others, in nearly all of which the long prominent stamens form a noticeable feature of the inflorescence. Those in which the flowers are borne all around the shoots have received the popular name of Bottle Brush plants. *Hypocalymma robustum* is a member of

the same order, but in general appearance it is very different to several of those above mentioned. It forms a graceful twiggy shrub about 2 feet high, with slender shoots clothed with linear oppositely-arranged leaves, from the axils of which the flowers are borne. They are not more than half an inch across, and of a pretty shade of pink. Being produced for a considerable distance along the shoots, a specimen of this is, when in full flower, remarkably pleasing. It was introduced from Western Australia over sixty years ago, and in the days when hard-wooded plants were popular was far more generally met with than it is now—indeed, it is difficult to get from nurseries at the present day.—T.

## THE ROSE GARDEN.

### SEASONABLE WORK.

**N**OW is a very busy time for the rosarian both inside and out. Roses under glass are in full growth and are constantly demanding attention if one is to keep them in good health. Whether the plants have been forced since Christmas or only allowed to come on naturally in a cool house, there is ample work to attend to. It is during the changeable weather of this month that Roses are so often spoilt by the amateur and least experienced gardeners. The sun is often shining brightly for an hour or so at a time, and it becomes a hard matter to ventilate the house judiciously. There would be much less difficulty about this if the wind and air were not so keen. An hour of sunshine and the temperature rises with a bound, to fall again almost as suddenly when the sun is behind a cloud. I use very little fire-heat indeed during this month, generally letting the fires out early in the morning and lighting up again about six o'clock at night. By shutting the house up early in the afternoon and damping down the walls and walks slightly, one can secure a sufficiently high temperature until the pipes are able to replace it. It is less expense, both in time and fuel, to let the fires out during the daytime if one can manage enough heat by careful ventilation. When the house is kept up to the maximum temperature required by the use of fire-heat, it quickly gets too hot when the sun comes through for an hour or two. It is also quite natural for the house to be colder in the early morning than at any other time during the twenty-four hours, and the slight warmth given by stirring the fire up and then allowing it to burn out is generally quite sufficient for Roses during the months of April and May. Slight shading will be very beneficial, and as this can easily be applied so as merely to break the glare of the sun, I find it much better to have it done in time. My plan is to mix a little whiting with skim milk, and apply this with a brush. A very thin solution will suffice during these two months, and will be found a great help in maintaining an even temperature. Much of the solar heat will be secured without the burning effect the sun has when shining through clear glass. Another advantage is the freedom with which you may use the syringe without fear of burning the young growth, and a gentle syringing during the hottest part of a bright day helps the plants a great deal as well as moderating the temperature. When the glass is slightly shaded it is not necessary to admit air so freely during bright weather, and this also is a great gain, because the outside air during these months is often very keen and will bring on mildew in an astonishingly short time.

While the Roses are making healthy growths of considerable strength is the best time to afford them some assistance in the way of liquid manure. It is altogether wrong to give stimulants to weakly growing, comparatively speaking, dormant plants. Yet we often see this done under the mistaken impression that the weaker subject is the one that requires it most. The exact opposite is the more correct treatment, as it is only the stronger growing plants which are able to utilise any liquid manures to advantage. Manure water

is very apt to make the soil sour and stagnant, unless the roots of the plants are sufficiently vigorous to assimilate such food quickly. Both for healthy and weakly growing Roses the ammonia arising from an occasional damping down with liquid manure is very beneficial. Such assistance as this will often give the necessary impetus towards a healthy and more vigorous growth. I also find that the ammonia is useful in checking insects, and never consider that manure water is wasted when used in this manner. Do not be afraid to let the temperature rise as high as 80° or 85° Fahr. in preference to admitting any keen air upon a bright day. Provided the glass has been ever so slightly shaded you may moderate the heat and ease the plants by a gentle syringing overhead; in either case, shaded or not, you can assist them by damping down the walks and surface soil as much as possible without sprinkling the foliage. Clear, soft water will be necessary for such syringing, and care must be taken that it is not used too cold. I would recommend that it never be colder than 65°.

As I have frequently advised in these pages, cold air and drought at the roots must be carefully avoided, or mildew is pretty sure to attack the plants. Nothing can be more injurious than this disease, and too much care cannot be taken in avoiding it. The frequent use of a weak solution of some reliable insecticide is the finest antidote that I know of, and this will always prevent the mildew from getting so firm a hold of the plants, as would otherwise be the case. Sometimes the air comes in through a chink in the woodwork or bricks, also through the corner of a broken square of glass; any foliage near to these places is often attacked by this fungoid disease. Such foliage should be removed at once and destroyed. It will also be well to stop up the holes in some way. Roses are partial to fresh air, but it must never be colder than they have been used to, nor must it come to them in the form of a draught. Sooner than this I would keep the house entirely closed.

There is also a great deal to be done in the outside rosery during April and May. The early part of April is the best month for pruning Roses in northern or cold and exposed situations, and is also the best time for the more tender Tea-scented and Noisette varieties even in warm and sheltered places, while the end of April is quite soon enough for this class if the situation be in any way exposed. Having pruned the plants, give the surface ground a light forking over again, and as soon as the eyes are pushing into growths of about 2 inches to 4 inches take the first seasonable opportunity to work the hoe among the plants. This will check any seedling weeds and at the same time assist the plants. Soon after the plants have reached this stage—which will generally be about the end of May—they are likely to be troubled with the Rose maggot or caterpillar. These must be hand-picked as soon as they appear. Many birds will assist in clearing off these enemies, and I have often watched the common house sparrow eating them. This bird is a great nuisance in many ways, but he has his good qualities as far as the rosarian is concerned. The strange thing to me is, that when these birds have tasted the maggots they are positively ravenous after them, and yet in some seasons they do not seem to eat them at all. R.

## IN THE TIME OF DAFFODILS.

**A**S was to be expected, there was no lack of flowers at the Drill Hall on the 19th ult., and, although some beautiful novelties were shown for the first time, yet the quality of the blooms was distinctly below the average. Altogether it has been a peculiar season. At the end of March everyone thought that we were going to have an exceptionally late season, and, indeed, at one time it appeared as if this would be the case. But April, though windy, has been dry and warm, and the sun has consequently had more power than usual. The result has been that early varieties like Sir Watkin, which were late, were hurried into

bloom, and the unusual spectacle has been seen of Sir Watkin, Emperor, Empress, Horsfield, and King Alfred all in perfect condition together. It is a well-known fact that colour is always deficient when the flowers open quickly, and this season there is certainly a most extraordinary absence of it. *Barri conspicuus*, *Nelsoni aurantius*, *Lucifer*, *Flambeau*, and others are all very poor in this respect, and I should imagine that this is solely due to the season. The question as to what makes colour is a very vexed one, and also one about which little or nothing is known. Whether the extremely wet season has had anything to do with this total absence of colour in many of those varieties which usually possess it is only thrown out as a suggestion, but whatever the cause it is certainly disappointing.

### THE NARCISSUS COMMITTEE

had a two hours' sitting, and some remarkably fine varieties were put before it. At the same time it is a pity that some growers do not use a little more discrimination in sending flowers to the table. Quite a number of second-rate varieties were put up for awards, as well as a number of good varieties, the condition of many of which was so indifferent that they had to be passed over. It must be borne in mind that the committee has to judge the flowers as they are, and not as they have been, and it is manifestly unfair to expect a flower which is exhibited when greatly out of condition to receive any commendation whatever.

### NEW DAFFODILS.

Miss Willmott's small stand of flowers was one of the chief centres of attraction, and it is pleasing to note that not only were all the varieties of high merit, but they were splendidly grown and most tastefully arranged. The first to attract attention was

*Great Warley*, a glorious *incomparabilis*, which can best be described as a much-improved Lady Margaret Boscawen. The flower is 4½ inches across, and the cup (almost a trumpet) 2 inches in width. This latter was a bright clear yellow colour, wide open, slightly crinkled, and something after the style of Sir Watkin. The perianth segments are of Horsfield character, pointed, overlapping, and sulphur white. Under the name of Coronation Year it was given an award of merit by the Royal Horticultural Society's deputation to Truro Spring Show on April 15, 1902. On the present occasion it was worthily given a first-class certificate.

*Cormoran*, though it just failed to get an award of merit, is another grand flower. This is a large bicolor trumpet, something after the Mme. Plomp style, but far more refined. The light yellow trumpet measures 2 inches in length, and is prettily fringed and expanded at the mouth. The creamy lemon segments are of fair substance.

*Zenith* is one of the Engleheartii section, with white, beautifully rounded segments and an exquisite centre, something like Mr. Engleheart's Gold Eye, but slightly deeper in colour, and edged with orange scarlet. The flower is 3½ inches across. Unanimous award of merit.

*Warley Scarlet* is so far the finest of all the Engleheartii section, and probably the loveliest flower which has been put before the committee this season. The creamy lemon segments are very wide and overlapping. The flat red crown is almost 1 inch across, and very nearly the colour of Will Scarlet.

Messrs. Barr and Sons had a very fine group, which included several novelties. Of these three received awards of merit. The finest was undoubtedly

*Henri Vilmorin*, which I described in THE GARDEN of September 26 last year. It has a pale yellow trumpet closely resembling that of Peter Barr, but neither so pure nor so large. The lanceolate segments are, however, better than those of this latter, being of great substance and stiff.

*Pyramus* is a large bicolor evidently raised from Mme. de Graaff. The trumpet is 1½ inches long, very large, and widely revolute at the mouth. The segments are of the colour of Mme. de Graaff, but in shape and appearance resemble those of Peter Barr.

*Elvira* belongs to the so-called poetaz section, being a cross between *N. poeticus* and *N. Tazetta*. The former is the seed bearer. It is a grand garden plant, growing 2 feet in height, with three or four large well-formed flowers on each stem. The petals are broad, white, and of good substance, while the cup is bright yellow edged with orange.

Mrs. R. O. Backhouse, Sutton Court, Hereford, had two particularly pleasing seedlings, one of which, *Dewdrop*, gained an award of merit, while *Silver Mist*, the other variety, was still more beautiful, and was quite worthy of an award.

*Dewdrop* is a small Leedsii, with wide, ovate, overlapping petals of poeticus character and a small crinkled cup of palest lemon faintly edged with orange.

*Silver Mist* is a perfectly unique Leedsii with poeticus segments and flat, pure, glistening white saucer, tinged with green in the centre; evidently a seedling from *Minnie Hume*.

Two other flowers which gained awards of merit were *Surprise*, a large Ajax with bright yellow funnel-shaped trumpet over 2 inches across at the mouth, from Messrs. Pope and Sons, King's Norton; and *Bennett-Poë*, a Johnstoni from Mr. Kingsmill, Harrow Weald, which may be best described as a small Cecil Rhodes.

In Mr. Charles Dawson's exhibit there were some most notable flowers. Undoubtedly the finest was

*Marie Louise*, an improved and refined Will Scarlett, with a slightly smaller but even brighter coloured cup, elegantly fringed and crinkled. The segments, which are pure white and of poetarum character, are considerably better than those of Will Scarlett. Altogether a most striking gain, and one of Mr. Dawson's own seedlings.

*Partrigan* (Williams) is very much like *White Lady*, but the segments are a trifle smaller and inclined to recurve. The cup, which is almost flat, is very much crinkled and of a lemon colour, shaded at the base with citron.

*Kingfisher* has a long, gun-barrel shaped trumpet  $1\frac{1}{2}$  inches in length and pale yellow in colour. The segments are lemon white and slightly incurving. A triandrus hybrid with two flowers on a stem.

*Seashell* is a pretty starry flower of the Leedsii section, with sharp-pointed narrow segments of palest lemon white. The crown is 1 inch in width, and tinged with a peculiar shade of citron lemon passing to pale lemon white, almost the colour of the segments.

*Christina Rossetti* is a poeticus of perfect beauty. It is larger than *Horace*, and has better and smoother petals. The large eye is of ornatus character and beautifully edged with deep orange red. A really first-rate flower.

*Penguin* is an Engleheart seedling, with long white pointed segments tinted with pale lemon at their base. The straight crown is 1 inch in length, prettily frilled at the mouth, and pale lemon with a tinge of citron in the centre.

*Yellowstone*.—This is a distinct Johnstoni, and very graceful. The spreading bright yellow trumpet is  $1\frac{1}{2}$  inches long and the petals creamy lemon.

*White Pearl*.—A remarkable ivory white Johnstoni of the highest beauty and refinement. Exactly the shape of *Queen of Spain*, but with three flowers on a stem. The trumpet is  $1\frac{1}{2}$  inches in length, and the segments of perfect form. The whole flower is of great purity, and beyond the fact that the perianth tube is tinged with citron yellow the whole of the flower is ivory white. This is quite the loveliest flower of the Johnstoni section which has yet been exhibited this season.

*Elizabeth*.—An exquisite medium-sized incomparabilis midway between *Minnie Hume* and *Sir Watkin*. The feature of the flower lies in its wonderful glistening creamy lemon petals, which are ovate and of splendid texture. The crown is a bright lemon yellow, widely expanded and crinkled.

Worcestershire.

ARTHUR R. GOODWIN.

## TREES AND SHRUBS.

### THE ALDER (ALNUS GLUTINOSA).

"O'er the dark pond, whose sullen bosom shows  
No curling waves to greet the passing breeze,  
The rigid Alder its stiff image throws,  
Gloomy and sad . . ."

THE Alder has had perhaps more unkind things said about it than any other British tree that attains to timber-producing size. It is, however, one of the most suitable of all trees, native or foreign, for planting in wet situations.

It is said by Loudon to thrive in places too moist for even the Willow and Poplar, and for planting on steep banks of streams and ponds it is useful because its roots hold the soil well together. In habit the Alder varies. At Whitton Park, near Hounslow, growing on the margins of the lake are some tall specimens 90 feet or so high. Trees such as these, however, erect and straight of trunk, whilst better for timber, are not so pleasing to the eye as the gnarled and rugged yet picturesque specimens seen in the illustration of Alders at Courtown on this page. The number of trees that can be grown in very moist situations is not so great but that the Alder may be welcomed among them. To the more graceful outlines of Willow or Poplar the stiffer carriage of the Alder affords a contrast that not only pleases in itself but is valuable in that it accentuates the beauties of its associates. The stunted somewhat Oak-like character of the Alders at Courtown is not so common to the species as a more erect, even pyramidal, type of growth, but it is much more charming in such a winter scene as is here shown. It is probably due to a constantly swampy water-logged state of the soil, for the Alder, fond of moisture as it is, grows most freely where there is natural drainage. Several varieties of the Alder are sold in nurseries. The best known of these is *laciniata*, a tree wild in the north of France, and more ornamental than the type because of the deeply-cut leaves. Of a similar type, but even better, is the variety *imperialis*. There is a golden-leaved variety (*aurea*) which, though not one of the best of golden-leaved trees, is useful because of the situations in which it can be grown.

W. BEAN.

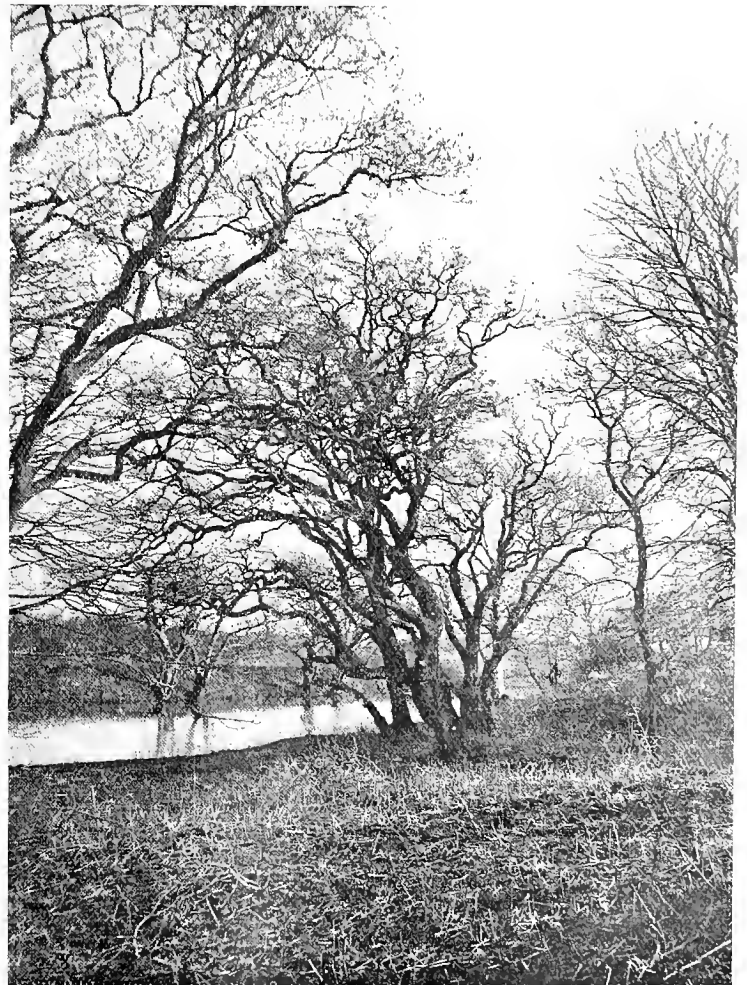
THE Earl of Courtown writes: "Having recently noticed in THE GARDEN some remarks on Alders, with illustration of a young tree, I think it may be of interest to show what the Alder can become in its age. I enclose a photograph of some fine old Alders growing near my house in the County Wexford; they are in a very favourable position, being sheltered and in good soil. They are on the bank of a tidal river and very near the sea."

### PROPAGATION OF RHODODENDRONS.

It is an easy matter to graft a few Rhododeu-

drons, but when it comes to the propagation of several thousands the task becomes more difficult, as there must not be many failures, or the work will become too expensive to be profitable. There are many ways of grafting Rhododendrons, but the method employed on a large scale is that of saddle-grafting. Some prefer side grafting, but this method takes up too much room to be of use where the work has to be done on a large scale. A propagating house with proper ventilating and shading appliances, an intermediate house which can be heated, and a set of cold frames, not too deep, are required. After the grafts have taken, a week or two in the intermediate house prepares them for the cold frames, where they can be gradually hardened off before planting outside.

The first thing in grafting Rhododendrons is to procure a sufficient quantity of good stocks, and in working a large number this is a more important matter than would be supposed, as good stocks are not too easily obtained. A good stock varies from the thickness of a lead pencil to the size of a man's finger, and must be clean and well grown. The common Rhododendron *poeticus* is used, and as this has a tendency to grow bushy, making several stems instead of one, only about one-half the plants grown are of use as stocks. These are taken up in the autumn as soon as matured, and laid thickly in a sheltered spot until required. During frosty weather a few mats are thrown over them at night, not for protection, as they are hardy enough, but to ensure their being ready for use if necessary. Theoretically, a stock should start into growth before being worked, but in practice the stocks are often grafted on the same day as they are potted, and always within a week. This is opposed to all that is taught by the leading authorities, but as this method yields from 95 per



OLD ALDERS AT COURTTOWN HOUSE, GOREY, IRELAND.

cent. to 98 per cent. of "takes," and is also much quicker, there is every reason for following it. The stocks are potted singly in 3-inch pots, the ball of soil, if too large, being made small enough to go into the pot. No cutting of the roots is allowed, as the plants are found to be longer in making fresh roots if cut.

The grafts are procured from the ripened growths of the previous year, and must correspond in size to the thickness of the stocks. The work of grafting commences by cutting off the top of the stock about 2 inches above the pot and trimming the sides of the stump evenly to a point. The graft is cut to fit this saddle by making a cleft in the base. It is then put on, taking care that two at least of the sides fit evenly, tied tightly with a piece of matting, and put in the propagating case in a temperature of from 65° to 70°. In a fortnight or three weeks they become united, and are transferred to the intermediate house. When they are being shifted any that have not become exactly united are retied and dressed with a clay paste to keep them moist. The first batch is worked in December, and successively until the middle of April. The annual percentage of failures varies from 2 per cent. to 5 per cent., which must be considered good, as there are always unexpected difficulties cropping up, which have to be met with and overcome.

RHODODENDRON.

## HARDY EVERGREEN OAKS.

(QUERCUS.)

**A**MONG our larger trees the Oaks have always been held in peculiar esteem. No doubt this is largely due to the associations that belong to not only our native species, but to many exotic ones also. As trees for the park and garden they possess many fine qualities. Their legendary attributes of strength and durability, which probably only the Yew can rival, render them peculiarly fitted for planting on ancestral domains, as memorial trees, or anywhere where it is particularly desired that the tree should be one that will survive for generation after generation to see. Many of the Oaks, too, are beautiful trees. Throughout the whole range of our arboreal vegetation nothing is finer than perfect specimens of our common Oak, the Turkey Oak, or the Holm Oak. The American species, many of which have been introduced and thrive well in this country, include some of the most gorgeously autumn-tinted of all trees.



(A) TYPICAL LEAF OF QUERCUS ILEX. (Natural size.)

In this series I desire more particularly to deal with the evergreen species of Quercus. The finest of these—*Q. ilex*, or the Holm Oak—holds an unique place among our hardy trees, for, excepting some of the conifers—and they constitute quite a distinct type—it is the largest of the evergreen plants we can grow. Although no other evergreen species equals it in value, many others are very ornamental and interesting. The rugged, corky bark of *Q. suber* always attracts notice; the golden colour on the lower side of the leaves of *Q. alnifolia* is as striking as in the golden-leaved Chestnut (*Castanopsis*);

and, as lawn shrubs, such species as *Q. coccifera*, *cuspidata*, *phillyraeoides*, and *glabra* are not only effective, but are a welcome change from the things in common use. Evergreen Oaks require very careful management in transplanting. It is probably this that makes many of them so rare in gardens, and not easy to obtain from nurseries. The general rule that evergreens should not be transplanted during the dormant season—say, from November to March—particularly holds good with regard to these Oaks. From the middle to the end of September, or during a showery week in late May, are, I believe, the best times.

The following is a list of the species here dealt with. It includes all, or nearly all, that are grown out of doors in Britain:

### EUROPEAN.

*Q. alnifolia.*                      *Q. coccifera.*  
*Q. Ballota.*                      *Q. ilex.*  
*Q. occidentalis.*                *Q. suber.*  
*Q. Turneri* (hybrid).

### ASIATIC.

*Q. acuta.*                          *Q. cuspidata.*  
*Q. glabra.*                        *Q. glauca.*  
*Q. phillyraeoides.*              *Q. vibrayana.*

### AMERICAN.

*Q. agrifolia.*                      *Q. chrysolepis.*  
*Q. densiflora.*                   *Q. virginiana.*  
*Q. Wislizeni.*

### Q. ILEX (HOLM OAK) AND ITS VARIETIES.

The Holm Oak is, in this country, the finest of all the evergreen species. In some respects it is the finest of all introduced evergreen trees. Apart from the conifers, none other attains to so great a size, and, in its heavy picturesque masses of foliage, it is one of the most distinct and characteristic. Not unlike the Olive in habit and foliage, it recalls in our northern latitudes perhaps more than any other tree that we commonly grow the arborescent vegetation of Italy and other parts of Southern Europe. Although a native of those warmer countries, it is perfectly hardy in the southern parts of England. At Kew, in twenty years I have never known it injured in the least degree beyond a discoloration of some of its leaves in exposed positions in early spring, and it has been planted in great numbers and frequently in most exposed situations. There are some very fine specimens there. The following dimensions are of a tree near the Victoria Gate: Height, 50 feet; diameter of head, 70 feet; and circumference of trunk (at 2 feet from the ground), 12 feet. Just above this measurement the trunk divides into four great limbs, the largest of which has a circumference of 7 feet. Some of the older employés can remember the large Holm Oaks at Kew losing all their foliage during, or after, a frost of great severity about forty years ago. The trees burst into fresh leaf, however, in the spring, and suffered no further injury. For dry, sandy soils this Oak appears to be particularly well suited. During the long series of droughty summers previous to 1902 I never once noticed any sign of the trees suffering from lack of moisture; on the contrary, they revelled in the heat and sunshine.

The Holm Oak is not grown abundantly for sale, the reason being, I think, that it is so difficult to transplant. It is a tree that should be given a permanent place early. Even when a transplanting machine is used it is advisable to root-prune the tree the previous year, cutting the roots back to the size of the ball of earth it is intended to move with the tree. In any case—and more especially where root disturbance is involved—I consider it best, unless



(B) LEAF GATHERED FROM SAME TREE AT SAME TIME AS (A), BUT FROM A SUCKER GROWTH.

(Natural size.)

it can be done in early autumn, to defer transplanting till May, that is, till the young growths begin to show. This tree is one that is naturally of a bushy habit, and in open situations its tendency is to increase as much (or more) in width as in height. For this reason it is frequently necessary to induce it to grow in height by pruning. No tree responds more readily. All that is required is to see that the leading shoot maintains its place, to shorten back any side branches that become too vigorous, and to thin out the branches where they are too crowded. When once the basis of a clean, erect trunk sufficiently high has been formed, the tree may be left to assume the shape natural to it. It is, however, a very variable tree, not only in habit but in foliage. The tree in its typical form has its lower branches more or less drooping. In some forms the branches over the whole tree are very pendulous, whilst in others, especially when small or of the middle size, the branches are so erect as to give the tree an almost fastigiate appearance.

There is a great variability in the foliage of the Holm Oak. In its average form the leaf is lanceolate, 2 inches to 3 inches long, deep glossy green above, and covered beneath with

a close grey felt. In old trees the leaves are entire, or nearly so, but in seedlings and young trees or sucker growths they are toothed. There is often a great difference in leaves from the same tree, as is shown in the accompanying sketches, which show the natural size and outline of two leaves taken from the same tree on the same day. The larger one, however, was from a sucker growth at the base. The Acorn is small, and ripens only in hot seasons. The following varieties are in cultivation, most of them differing chiefly in regard to their foliage:

*Q. crispa*.—A curious variety of little value, the leaves being small (about half an inch long), almost orbicular, the margins wrinkled, but without teeth. It was grown in Loddiges' nursery seventy years ago.

*Q. diversifolia*.—This is a variety with very variously shaped leaves; they are  $1\frac{1}{2}$  inches to  $2\frac{1}{2}$  inches long, the middle portion usually very narrow (one-eighth of an inch to a quarter of an inch wide), but the terminal part swelling out into a club-shaped apex. Often there are two or three lobes at the base, varying in length and shape; sometimes the whole leaf is cut up into lobes. There are, however, scarcely two leaves of the same shape.

*Q. Fordii*.—One of the best known of the Holm Oaks. This variety is also one of the most distinct and desirable. It is to be recognised by the peculiarly glossy dark green of its leaves, also by their long, narrow shape; they are mostly toothed and wavy at the margins.

*Q. Genabii*.—A big-leaved variety, which used to be grown (perhaps is now) by Messrs. R. Smith of Worcester. I have measured leaves nearly 5 inches long by  $2\frac{1}{2}$  inches in width; the terminal half is toothed.

*Q. Gramuntia* (*Quercus Gramuntia* of Linnaeus).—Though now considered to be a variety of *Q. Ilex*, this Oak is one of the most distinct. It may be regarded as the Spanish type of the Holm Oak, for it used to be very abundant on the peninsula. The name, however, refers to its having been found on the Grammont Estate, near Montpellier. It differs from *Q. Ilex* in several ways; in habit it is more stiff and stunted, and its leaves are more rigid, never tapering to a long point, but oblong or roundish, and armed with numerous stiff, spiny teeth. The Acorns are said to be equal or superior to the Sweet Chestnut in flavour if properly ripened.

*Q. latifolia*.—This variety and *Genabii* appear to be very similar. The leaves are very large. Loudon mentions having seen them 5 inches long and nearly 3 inches broad. There are a few teeth only on the terminal part.

*Q. rotundifolia*.—The distinctive character of this variety is implied by the name. The leaves are almost as broad as long, have scarcely any toothings, and are  $1\frac{1}{2}$  inches to 2 inches long.

W. J. BEAN.

(To be continued.)

## THE AURICULA.—MAY.

DURING this and the previous month Auricula growers will be reaping a well-earned reward, and, let us hope, ample compensation for past labours. May brings its usual routine of work, the most important being repotting the plants

as they go off bloom. The system of early potting is the one usually adopted, but it may be delayed till the beginning of August. A safe and suitable soil may consist of two-thirds good rich fibrous loam from an old pasture, with a mixture of the turf fibre in it, and one-third rich and friable leaf-mould, old rotten manure from a Cucumber frame, and enough sharp sand to keep the soil well open. Firm potting is indispensable, and plenty of crocks to ensure perfect drainage.

After repotting place them in a cold frame, closely shut up for a week or ten days, admit air gradually, and water only when the plants show signs of actually wanting it: this gives the roots a chance of taking to the new soil. Another important function is the saving of seed. The raising of seedlings should occupy the serious attention of all growers, and should be almost looked upon as a duty in order to keep up a strain of healthy and robust plants to replace the older varieties, which in many cases become weak and delicate after years of cultivation. The desire should be not only to emulate, but to

## WALL GARDENING.

### WILD FLOWERS IN THE WALL GARDEN.

AT this season the wall garden is in its fullest beauty. Drifts of Arabis, Alyssum, and Aubrietia make fountains of colour, but these are not wildings. We have frequently written of plants raised from seed which are familiar in the border, but succeed even better in cool wall chinks. Another phase of wall gardening is the growth of wild flowers, and this subject is dealt with by Miss Jekyll in "Wall and Water Gardens." These notes will interest those who delight in walls covered with as great a variety of plants as possible.

"When a wall garden has been established for some years one may expect all kinds of delightful surprises, for wind-blown seeds will settle in the joints and there will spring up thriving tufts of many a garden plant, perhaps of the most unlikely kind. Foxgloves—plants that in one's mind are associated with cool, woody hollows—may suddenly appear in a sunny wall; so may also the great garden Mulleins. When this happens, and the



LOW ROUGH WALLS OF FLOWERS, TWO YEARS PLANTED, AND NOW IN FULL BEAUTY. A RIVERSIDE GARDEN IN BERKSHIRE.

excel those raised by their predecessors. The anthers of each pip should be removed, and the pollen introduced in the exposed pistil by a camel's-hair pencil from another plant. Here comes scope for skill and judgment in selecting sorts likely to make a judicious cross. It need hardly be said that the fertilisation should be confined to each particular class, viz., green, white, grey edges, and selfs. A favourable result could scarcely be expected by crossing a green with a white-edged flower. The plants must then be placed in the full sun and exposed to all kinds of weather, for, as the annual routine of plant life ends in the production of seed, this rough treatment stimulates the plant to bear seed, and the nearer it is brought to Nature the greater effort Nature makes to reproduce itself in the production of seed.

Bishop's Stortford.

roots travel back and find the coolness of the stone, the plants show astonishing vigour. I had some Mulleins (*Verbascum phlomoides*) that appeared self-sown in a south-west wall; they towered up to a height of over 9 feet, and were finer than any others in the garden, while everything that is planted or that sows itself in the wall seems to acquire quite exceptional vigour.

"It sometimes happens also that some common native plant comes up in the wall so strongly and flowers so charmingly that one lets it be and is thankful. An illustration shows a case of this where the wild Stitchwort (*Stellaria Holostea*) appeared in the wall and was welcomed as a beautiful and desirable plant. Close to the tuft, which has now for five years been one of the best things in the place at its own flowering time, is a colony, also spontaneous, of the Shining Crane's-bill (*Geranium lucidum*), whose glistening, roundish, five-lobed leaves turn almost scarlet towards the end of summer. These are both common hedge

W. SMITH.

weeds, but so dainty is their structure and kind of beauty that we often pass them by among the coarser herbage of the country lanes and hedges, and only find that they are worthy garden plants when we have them more quietly to ourselves in the rock wall. There are other wild plants that are also worthy of wall space. The Wall Pennywort (*Cotyledon Umbilicus*), so common in the south-west of England, is a precious plant, and is especially happy in combination with hardy Ferns. *Linaria Cymbalaria* is a gem in a rough wall, and, though a doubtful native, is so generally found as a wild wall plant that it takes its place in books of British botany. The yellow Toadflax (*Linaria vulgaris*) is also a grand wall plant, and so is the yellow *Corydalis* (*C. lutea*), though the paler-flowered and more daintily-leaved *C. capnoides*, also known as *C. ochroleuca*, is a better plant; just a good shade more delicate and more beautiful throughout. In considering the best of the native plants for wall gardening, the Welsh Poppy (*Meconopsis cambrica*) must not be forgotten; its place is at the foot of a wall, and in its lower courses among Ferns. Nearly all the British Ferns can be grown in walls, many of them acquiring great luxuriance. As nearly all are plants that love shade and coolness and some degree of moisture, they should be in walls that face east or north; the larger kinds in the lower joints and quite at the foot, and many of the smaller ones in the upper joints. The common Polypody runs freely along the joints, and the shelter preserves the fronds from winter injury, so that often, when severe weather kills the wild ones in the lanes and hedges, those that have the protection of the wall will carry their fronds, as will also the Hart's-tongue, green and perfect throughout the winter.

"It would be well worth having a bit of cool wall for British plants and Ferns alone; its beauty would scarcely be less than that of a wall planted with exotics.

"There are two small English Ferns that do not object to a dry and sunny place, namely, *Asplenium Ruta-muraria* and *Asplenium Trichomanes*. They seem to be fond of the lime in the joints of old mortar-jointed walls, and able to endure almost any amount of sunshine. Of the other English plants that like warm wall treatment three come at once to mind; all of them plants so good that for hundreds of years they have been cultivated in gardens. These are Thrift, Wallflower, and Red Valerian. In a sunny wall all these will be at home. Wallflowers never look so well as in a wall, where air and light is all around them, and where they grow sturdy and stocky and full of vigour. Compare a close-growing, bushy Wallflower in a wall, with its short-jointed, almost woody stem, stout and unmoved in a gale of wind, with one planted out in a bed. The garden-nurtured plant will be 1½ feet or 2 feet high, and its large heavy head will be beaten about and twisted by the wind till it has worked a funnel-shaped hole in the ground, and is perhaps laid flat. Thrift, that lovely little plant of rocky sea-shore and wind-blown mountain top, is indispensable in all rock and wall gardening, neat and well clothed all through the year, and in summer thickly set with its flower-heads of low-toned pink. It loves in nature to grow along rocky cracks, sending its long neck and root far down among the stones.

There is a garden form with bright green leaves and darker-coloured flowers, but, though it is undoubtedly a more showy plant, it is scarcely an improvement on the type; much of the charm is lost.

"The Red Valerian (*Centranthus ruber*) is a chalk-loving plant; it will grow in ordinary soil, but is thankful for lime in some form. In this the garden form, of deeper colour, is a better plant than the type, the colour in this case being deepened to a good crimson. Another British plant of the chalk that will also be handsome in the rock wall is the fine blue-flowered Gromwell (*Lithospermum purpureo-caruleum*); it throws out long runners like a Periwinkle that root at the tips. They seem to feel about over the surface of the wall till they come to a joint where they can root.



RED VALERIAN (*CENTRANTHUS*) IN AN OLD CASTLE WALL.

"Two of the British wild Pinks, namely, *Dianthus caesus* and *D. deltoides*, are among the best of plants for a sunny wall; and another, not exactly showy, but neat and shrub-like and of considerable interest, well worthy of a warm place, is the Wood Sage (*Teucrium Scorodonia*).

"Another charming wild plant for sunny joints and places on a level with the eye, or for such wall-tops as would be only as high as eye level, is the Sheep's Scabious (*Jasione montana*); neat and pretty, and worthy of cultivation on wall or dry rock garden, where the little plants, each with its large flower-head, can be grouped rather more closely than in the heathy wastes where they are generally in a thin sprinkle among short grass. Another plant for wall-top, growing willingly in

any soil, though preferring lime, is the yellow Rock Rose (*Helianthemum vulgare*), common on sunny banks in chalk districts, and one of the few species (the others rare or local) that are the representatives of the large *Cistus* tribe of Southern Europe. One more chalk-loving plant should also be in the sunny wall, *Reseda lutea*, the Wild Mignonette; tall, graceful, and sweet-scented. It is best sown in the wall if seed can be obtained.

"There are still some native plants for the warm wall of the succulent class. The Houseleek, so frequent on the roof of the cottage out-house; the tall and stout *Sedum Telephium*, the Live-Long of old English naming (for a spray of it in a room without water will live a month almost unchanged); and the smaller Stonecrops, *S. anglicum*, *S. album*, and *S. acre*.

"There are still to be named for a wild wall in a cool, shady place some of our small wood plants; indeed, they seem never happier than when they become established in the wall joints and chinks. Such an one is the Wood Sorrel, one of the daintiest of spring flowers, whether in wall, garden, or wild. Primroses also take kindly to the lower joints on the shady side, and the cool wall-foot is the place of all others for one of the native Irises, *I. foetidissima*, whose dark green sword-like leaves are good to see throughout the winter, while in October the seed-pods are opening and showing the handsome orange-scarlet fruit.

"Then the purple Columbine is a grand cool wall plant; the delicate yellow-flowered Wood Pimpernel (*Lysimachia nemorum*) will trail happily in some lower joints; the larger Moneywort is one of the best of wall draperies; and even two moisture-loving small things, the Moschatel (*Adoxa*) and the golden Saxifrage (*Chrysosplenium*) will be satisfied with the coolness of the lowest joints and the comfort of the mossy wall-foot."

## NOTES ON HARDY PLANTS.

### ARABIS ARENOSA.

**M**OST people would consider this little European crucifer scarcely worth notice, but the neat habit of its symmetrical rosettes as it grows upon rocks and banks on the confines of Prussia tempted us to gather some of the ripe seed-pods. No opportunity occurred for sowing the seed for two years, yet it germinated freely. In due time a certain number of seedlings were pricked off, three together, in 3-inch pots and summered out of doors, for the sake of experiment for flowering in a cold greenhouse in early spring. Some were shifted into pots of a larger size, others were left alone as they were in the 3-inch pots, and it is to these last that it now seems worth while to make some reference, inasmuch as they threw up numerous slender stems 4 inches to 6 inches high crowned with a profusion of delicate rose-lilac flowers, which were extremely pretty and fragrant. The plants which were treated more liberally have thriven well and have flowered abundantly, but are commonplace in character, and altogether destitute of the refined beauty of those which were starved and stunted. This goes to prove that a little neglect occasionally serves a good purpose. As a rule we are apt to give more

pot room than is needed, which tends to vigour of leaf rather than abundance of flower. Naturally the usual position for *A. arenosa* is on a dry wall or in a rock garden, where its pretty rosettes are very effective, even when not in flower, if rightly placed, but this little biennial may sometimes be used with advantage, for example, in a glass porch or on a cool window-ledge, to give lightness and variety in grouping with more substantial plants.

#### PRIMULA MEGASEEFLIA.

ALTHOUGH discovered by the celebrated botanist Balansa as long ago as the year 1866 in the environs of Rizeh, in Lazistan, at an altitude of about 1,000 feet, growing in humid ravines, it seems strange that this Primrose was not brought into cultivation until recent years by Miss Willmott. This is evidently accounted for by the fact that, although widely distributed in the Caucasus, Persia, and Afghanistan, it is nowhere common, only growing luxuriantly in a few localised habitats. Its position in the large genus *Primula* was considered by Boissier to be nearest to that of *P. grandis*, also a rare Caucasian plant, remarkable for its large leaves and tall stems, bearing numerous flowered umbels of rather small yellow flowers when considered in proportion to the size of the plant. The leaves of *P. megaseeflia* are variable in form, ranging from ovate to orbicular, 3 inches to 5 inches long and 4 inches broad. Its specific name is due to the resemblance of its leaves to those of some of that section of the genus *Saxifraga*, which have been distinguished under the generic name of *Megasea*. Like its foliage, the flowers show distinct variations in size, form, and colour, and though there are some poor varieties of it in cultivation, other forms are really handsome, and on the whole it is probable that it will prove a valuable plant. Although perfectly hardy it has not proved a suitable plant outside at Kew, losing its leaves during winter, which, under the cold frame treatment, are retained till after the flowering period, when new leaves push up, attaining their full development during April. W. I.

#### SAXIFRAGA SCARDICA.

THOUGH found on Mount Scardus, in Macedonia, as long ago as the year 1857 by Grisebach, whose name is now familiar in connexion with the red-flowered species from the same country, named after him, this pretty little rock plant has only found its way into cultivation during the last few years. The name *scardica*, however, is familiar as being one of the several synonyms which have been applied at various times to the now well-known and useful *S. apiculata*, which is considered to be a hybrid between *S. rocheliana* × *sancta*. Collected again in Macedonia in 1897 by the members of an expedition sent from Sofia, the true plant was received at Kew in 1901, and flowered the same year. It is closely allied to *S. burseriana* and *S. Vandellii*, and the three together form a small section of the genus spread over the Alps from Switzerland to Macedonia, *S. Vandellii* being the western one, with *S. burseriana* connecting the two species. With dense cushion-like tufts similar to those of the latter species, but less glaucous in the foliage, the leaves are rather broader and more obtuse, and the flowers are of good size, ivory-white, produced three to four in a head on the top of slightly pubescent leafy stems 2 inches to 3 inches high. The illustration represents plants growing in a pan in the alpine house at Kew, in a mixture of soil with which plenty of lime rubbish has been mixed. While succeeding well under this cold frame treatment, it has also proved quite hardy in the rock garden, standing the damp weather much better than *S. burseriana*, and flowering freely



FLOWERS OF PRIMULA MEGASEEFLIA.

(Natural size.)

From a drawing by H. G. Moon.

about the same time or a little later than that plant. Like the other species belonging to this section it is readily increased by division of the roots after flowering. It is not confined in its geographical distribution to Macedonia; it is also found in Albania, and sparingly in the superior region on Mount Olympus, in Thessaly, at an elevation of 8,000 feet. W. I.

#### DAFFODILS IN MOIST GROUND.

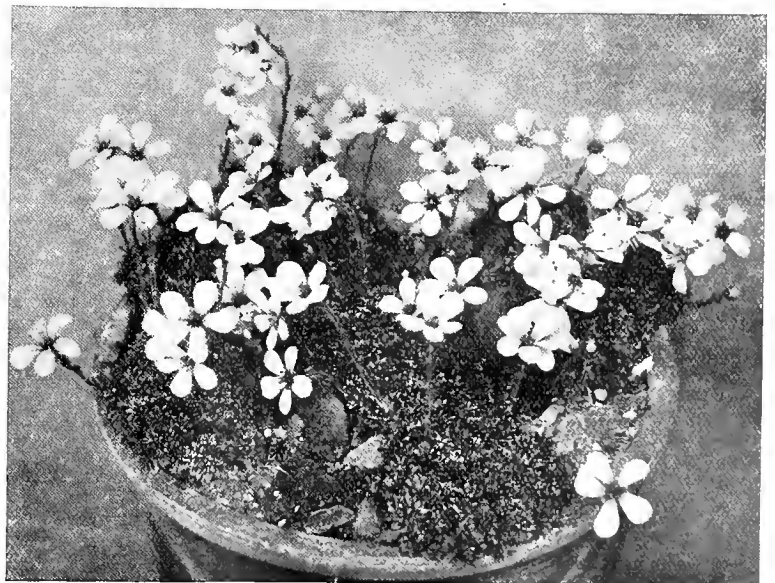
In your report of the Midland Daffodil Society's show and conference at Birmingham, Mr. F. W. Burbidge is stated to have given it as his opinion that the finest Daffodils of the future will be grown on grass land, and that the Daffodil is a water-loving plant. Mr. Burbidge is further reported to have said that in two gardens—one in England and the other in Ireland—the finest Daffodils were cut, not from the cultivated border, but from moist grass land. This statement seems to me to open up several interesting points. I do not think it is generally known that the Daffodil is a water-loving plant, at any rate it is very rarely seen planted by the sides of streams or lakes in gardens. If it could be persuaded to establish itself in such positions, then the list of plants suitable for water-side gardening would undoubtedly receive a most valuable addition. The general opinion seems to be that Daffodil bulbs dislike moisture, and on that account they are usually planted in a soil that is well drained and of a somewhat sandy nature. On the

face of it, it seems probable that the bulbs would rot if planted in ground that is wet during some part of the year and moist at all seasons. The opinion of another Daffodil grower of wide experience, Mr. J. D. Pearson, as given in your report, appears not to favour this point of view, for he has found that bulbs left in the ground for two years were better able to withstand moisture than those lifted annually. As bulbs planted by the lake-side or on the banks of streams would presumably be planted permanently, it is reasonable to suppose that they would be able still better to withstand moisture, as being well established seems to be the crux of the matter. Perhaps other readers of THE GARDEN have had experience of Daffodil culture in moist grass land. If the finest flowers can be had from plants growing undisturbed on grass land, then it seems useless to take so much trouble to give Daffodils a well-prepared border. With less trouble one would have finer flowers. Mr. Burbidge has a wide experience of the Daffodil, its likes and dislikes, and his opinion should be worth having. Is it possible, however, that local circumstances had something to do with the success of the Daffodils growing in the gardens referred to by him, such as especially suitable soil or favourable climate? A. H. P.

### THE FLOWER GARDEN.

#### NOTES FROM A YORKSHIRE GARDEN.

IT is a great pleasure to see the herbaceous plants once more pushing through the ground, opening out their leafage in all the delicate tints of green, so eloquent of spring. It is a late season with us, the Daffodils being three weeks later than last year, and the growth of other plants proportionately retarded. Perhaps this is an advantage after all, for we may escape the ravages caused by late frosts such as we had last year in the late spring, and which did so much damage. In Easter week we had very boisterous winds, and it was a comfort to know that the climbing Roses had been tied in to their stakes and pillars just in time, or the new shoots would have been sadly battered. Arabis, Aubrietias, Saxifrages, and yellow Alyssum are coming into bloom, and the first of the Droniceae will soon be out. The sparrows seem to have tired of pulling Primrose petals off, or rather the quantity of these ever-welcome flowers is great enough to allow of a few torn ones going almost unnoticed. The coloured Primroses are also very gay; these were raised two years ago from Sutton's Perfection



THE NEW SAXIFRAGA SCARDICA IN THE ALPINE HOUSE AT KEW.

strain. It was rather disappointing work to raise these Primroses from seed, but the few plants in the garden have been very showy, the colours being so rich and clean. The older favourites Double White, Double Yellow, and Harbinger may be planted amongst the coloured ones with advantage to each. These will soon be followed by Polyanthus of many hues, interspersed with blue Forget-me-nots.

The scent of the young leaves of Penzance Briars is noticeable; not so that of some Crown Imperials planted in a neighbouring border, nor are more than half the bulbs going to flower this year. How is it that they so often come "blind"? The matter has recently been referred to in THE GARDEN, some writers having had no trouble and others failing to get flowers.

My Veronica Andersoni, variegated, has died during the winter, as expected, not being a hardy plant in our district; but some cuttings taken from it last autumn and wintered in a cold frame have made good growth, and will now be transferred to the open border. I have very few of these tender plants, as things that will not winter out of doors are not for the northern gardener. I have just been talking to a friend of mine who is deploring the amount of bare earth in his garden, as well as the great and annually-recurring trouble of putting out his bedding plants, and I think there is now another convert to the ranks of those who find in the mixed border, the Rose garden, and the portion devoted to rock plants the truest ideal of gardening.

Surely half the joy that comes of gardening is felt in watching the whole life history of the plants as they daily show fresh growth and ever-changing form and colour; and though the Crocus and the Snowdrop and the Aconites and the lovely Chionodoxas have faded away, their places are being taken by the flowers of early summer, whose leafage protects the small bulbs and conceals any unsightly dying leaves.

Beechwood.

WALTER JESPER.

### PÆONY LUTEA FRANCHET.

IN the midst of the recent floral splendours at Ghent a hardy plant attracted the attention of connoisseurs, a herbaceous Pæony, with flowers of a beautiful golden yellow, clear, bright, and pure in colour. The plant was exhibited by Victor Lemoine and Sons. It seemed a little eclipsed by the striking colours of the new Azaleas, and by the very beautiful Bromeliads of M. Duval; but those who were alive to good things—and notably all the reporters for horticultural papers—placed the new Pæony as a plant worthy of the attention of the judges who gave it the highest award in their power. Emile Lemoine has written as follows regarding this plant in the *Revue de l'Horticulture Belge*: "Among some seedlings from seed sent to the Jardin des Plantes at Paris by the Abbé Delavay years ago was found this new woody, yellow-flowered Pæony."

In an interesting article, accompanied by coloured photographs, Louis Henry, eleven years later, related how the Museum of Natural History at Paris, having received seed of this Poppy from the Abbé Delavay, set out to raise and flower some plants. The packet was labelled, "Alpine plant seed received upon the Che-Te-Hotze below Tapin-tze, October 15, 1886." It contained twenty-six common-looking seeds, of which, planted upon their arrival, three seeds germinated May 28, 1888. The first flower opened in early June, 1891. The following year it flowered again, and was shown by Professor Maxime Cornu before the National Society of Horticulture of France at its session of June 9. In 1893 it was again shown on May 25. Successful grafting and seeding enabled the museum to distribute young plants to various botanical establishments, notably to the Kew Gardens, and the *Botanical Magazine* gave a description of it in 1901 with a coloured plate. A plant and some grafts were sent to Lemoine and Sons, who introduced it in 1902.

It is a small, smooth shrub, forming clumps reaching 3 feet in height, and produces new shoots from the roots freely. The stalks are woody and

more or less persistent, with greyish bark. The leaves are large, composed of three leaflets, which are divided nearly to their bases, of a deep green above, pale or glaucous green below. The flowers are solitary upon their peduncles, and two or three are produced by each branch. The slender peduncles, clear green or bronze, are often stimate or horizontal. The petals measured from 6 inches to 11 inches in diameter; colour, the beautiful lustrous yellow of the Caltha. The numerous golden yellow stamens form a dense ring around the three to five greenish yellow carpels. The flowers appear regularly in early June; that is when the Tree Pæonies are done blooming and a little ahead of the herbaceous Pæonies. They are agreeably fragrant. The seeds are large, round, a little angular, deep brown, variable in number, and enclosed in the carpels, which remain green and fleshy, not becoming dry.

This Pæony is a variable species. There are two distinct forms already. One has branches, petioles, and nerves of the leaves of a reddish brown, stems green up to the leaves, flowers 2 inches to 2½ inches, with six to eight petals of a brilliant yellow, a little late in flowering. The other has bronze leaves when first opening, then passing to deep green, as do the branches and petioles, large flowers 3½ inches, nine to eleven petals of a bright yellow, filaments reddish brown, and a little early in opening its flowers. The first variety has been distributed; the last is the one shown at the late exposition in Ghent, which was a pot-grown young plant, and does not give a full idea of what a larger plant grown in the open would be. The plant has proved hardy, but it will be wise to protect it with a few leaves. Ordinary garden soil suits it, and it is easily grafted on the roots of the herbaceous Pæony, or can be increased by dividing the old plants.—*American Florist*.

## NURSERY GARDENS.

MESSRS. S. S. MARSHALL, LIMITED,  
BARNHAM.

SUSSEX is a delightful county, abounding in well-wooded hills and dales, and the district around Barnham, some few miles from Littlehampton and Bognor, is not the least delightful part of it. Nurserymen, of course, are not influenced by æsthetic considerations when deciding upon a position for growing trees and plants, but it would be difficult to find a nursery more pleasantly, and at the same time more advantageously, situated than that of Messrs. Marshall at Barnham. The land is high, and exposed to the south-west winds which blow from the English Channel (only some four miles distant), so that a hardy growth of trees, shrubs, and other plants is assured. The comparatively small rainfall of the district, and the large amount of sunshine with which it is usually favoured, are conducive to the production of sturdy, well-ripened wood that all professional fruit and Rose growers well know the value of. These nurseries are quite easy of access, for they practically adjoin Barnham Junction Station, on the Portsmouth line of the London, Brighton, and South Coast Railway, and may be reached in about an hour and a half from Victoria. There are about eighty acres of nursery stock altogether, including some thirty acres of fruit trees, which may be said to be the special feature of the Barnham nurseries. Roses are also cultivated in large quantities, as well as herbaceous plants, forest trees, and ornamental trees and shrubs. Taking first

### THE FRUIT TREES

as the most important item in the nursery, we saw a great many Apples, Pears, Plums, Cherries, &c., in all generally grown forms—as standards, pyramids, bushes, and trained trees for wall or espalier culture, and their sturdy, firm growths spoke well of the suitability of the land and climate for fruit tree culture. The trained specimens were exceptionally good, and, still further to individualise, cordon Pears we have not seen more finely grown for a long time; trees some two or three years

old and trained on both sides of a wire espalier were bristling with fruit-buds. The maiden trees of Apples and other kinds of fruit had made strong, firm shoots, that promise well for whatever form of trees they may develop into. There is nothing like a good start in life; fruit trees appreciate it thoroughly, and in future years will yield a high rate of interest on the outlay in the shape of heavy and continuous crops of fruit. Bush Apple trees, Nuts, Currant and Gooseberry bushes, trained Peach trees, and Morello Cherries were others whose appearance bore satisfactory testimony to the culture they receive.

### ROSES

are extensively grown; many thousands are budded annually. In addition to new varieties of Roses, which after trial Messrs. Marshall consider are likely to find a permanent place in British gardens, there is a large collection of older varieties of sterling merit among both Hybrid Perpetuals and Hybrid Teas, numbers of which are now rarely seen. There is a good stock of the newer wichuraiana hybrids, such as Alberic Barbier, Auguste Barbier, Paul Transon, and others. They are delightful trailing Roses, and have made rapid strides in popular favour since their introduction. The old

### MOSS ROSES,

too, are well grown here. Messrs. Marshall have twelve or more varieties of this charming Rose, which appears to be not nearly so much grown as it used to be. In how many amateurs' gardens that contain perhaps an up-to-date collection of Teas and Hybrid Teas would you find half a dozen Moss Roses?

### TREES AND SHRUBS

occupy a considerable portion of the nursery, and we noticed large plots of ground planted with Oak, Beech, Huntingdon Elm, Scotch Elm, English Elm, Cornish Elm, Portugal Laurel, Arbor Vitæ, Norway Spruce, and various conifers. Among the

### HERBACEOUS PLANTS

we found many old favourites. Large quantities of familiar plants were to be seen, and there seems to be a large demand for them. They comprised such as *Physalis Franchetti*, *Achillea Ptarmica* The Pearl, *Althæa frutex*, *Spiræa Anthony Waterer*, *Campanula persicifolia*, *Eurotia Fraseri*, *C. Youngi*, *Arabis albida flore-pleno*, *Tiarella cordifolia*, *Peonies*, *Phloxes*, *Michaelmas Daisies*, *St. John's Wort*, &c. *Coquelicot* is far and away the most popular Phlox, according to the sales of this plant from the Barnham nurseries, and P. Mrs. Jenkins is found to be one of the best whites. We were interested to hear about

### THE SHASTA DAISY,

which has created such a stir in America recently, and of which a good stock is held. It has not up to the present proved so good as *Chrysanthemum maximum* W. H. Gibb, but as the plants were only imported from California last spring it may improve as it becomes better acclimatised. Violet Dr. Jameson, a very early single variety (violet coloured), is thought highly of here. Such plants as Bamboos, *Eulalias*, *Gynerium argenteum*, *Phormium tenax*, and *Tritomas* have a considerable piece of ground devoted to them. They are always in demand. Briefly put, such are the chief features of these delightfully situated Sussex nurseries.

## POT AND PARAPET GARDENING FOR THE POOR OF TOWNS.—I.

"Every joy is gain,  
And gain is gain, however small."

IN my little "Book of Town and Window Gardening" sundry chapters relating to "Plants for the City Poor" and "Roof and Back Yard Gardens" have resulted in so many letters and enquiries from East End Clergy, Poor Law Guardians, and members of different philanthropic societies that it seems a duty as well as a pleasure to set forth simply such advice and counsel as I am able



to give, the most valuable part of which will certainly be the collected experiences of others who have been pioneers in the same work—the work, that is, of encouraging a love of plants and gardening among the labouring classes in the densely-crowded neighbourhoods of towns. No one claims for a moment that there is any novelty in the idea of bringing the joys of gardening within reach of these poor people; it is simply that it is now the earnest desire of many to make these joys more general, and spread their happy influences more widely.

What can be done among the factories and chimney-pots of big towns? That is the question. It is found impossible to draw up any code of rules or to formulate any schemes that can be applied to all. Needs and facilities differ widely. Each case requires consideration on its own merits. A notice of the sort of classes from whom appeals for advice have been received will give some idea of the varied character of their necessities. Among the number are—beside the East End Clergy and Poor Law Guardians already mentioned—superintendents of scattered homes for boys and girls, guilds of ladies who are befriending factory girls, overseers of working boys' homes, and sundry energetic spirits among the heads of Sunday Schools. Besides the differences in people and their positions, even in slumland there are divers sorts and kinds of houses and of streets and of aspects. The places from which appeals or letters have come include the districts of Millwall, Mile End, Poplar, Bermondsey, and Battersea. In many of these regions it appears that back yards are a feature generally absent, and front yards—what few there are—are mostly wanted for business purposes and not the graces of life. So it comes about that one has to find out what can be done for the best in the way of gardening for those who, generally speaking, have nothing but pots to grow anything in, and nothing better than narrow parapets on which to place them. Many people, indeed, there will always be who have no outside space whatever to call their own, but have to stand their pots of plants indoors as near the light of the window as they can. Plants have to share "pot-luck" with the family, dividing with it the scanty measure that is afforded them of air and sunshine. Again, there may be some favoured spots where a window-box may be contrived, or, better still, some boxes hung by wires or nailed outside upon the walls. These deserve all praise. Whether upon the walls of yard or house, they are most useful and likely to succeed, having the further advantages that no inmate of the house is robbed by them of his share of the light or air, and the plants themselves are sheltered from all draughts.

It takes very little experience to show that there are some few points on which all the would-be gardeners of the poorer districts are in precisely the same positions. Across the path of every one of them three stumbling-blocks are lying; they are want of money, want of time, and want of experience. Serious additions these to the usual difficulties that beset town gardeners, rich and poor alike, namely, want of air, want of light, want of space, and the hindrances of smoke, smuts, cats, and sparrows. But not one of the three stumbling-blocks need cause dismay. Let us take them in detail. Firstly,

#### WANT OF MEANS.

There are plenty of people ready and more than willing to assist with gifts in money and in kind if

only their efforts could be directed, and if some centres were established to which gifts could easily be sent. Ah! there is great hope in this direction. There are the brooks, the running streams of sympathy and kindness; it is only guidance that is lacking for these rivers to flow outward and onward, bringing fresh life and beauty to many a dark and dreary place. Secondly,

#### WANT OF TIME.

Well, those who know most about the care of plants and flowers are well aware that growing them is not a thing that calls for any great expenditure of time; it is more the daily but never omitted almost momentary look and touch that tells. Morning and evening, night and day, just a few moments stolen from getting-up and going-to-bed hours—these would suffice. Factory boys and girls, school boys and girls, fathers and mothers of families—all can give up as much time as this, and neither be hindered in their work nor feel that

this fine June morning. He is not quite sure which way to turn. You give him a twist or a tie; it did not take a moment to do, but see the result at night. If you had lost your presence of mind, and not helped the poor little thing to make up its mind, it might have fluttered indecisively for hours, and perhaps got blown about and broken. It is just the same with watering and with everything else. It is the stitch in time that saves, the drop of water not too long withheld, the guiding hand, the timely shading from the too hot sun—no, we need not be afraid that want of time will be a hindrance. Thirdly,

#### WANT OF EXPERIENCE.

This is the most serious of the stumbling-blocks. It has been suggested that leaflets of very easy instructions should be distributed wherever seeds or pots of plants are given out to beginners. Not a bad idea, if the instructions are at the same time simple and varied enough; but better results would be obtained by a few verbal hints and practical demonstrations. To bring up a pot plant already started written instructions might do well enough, but for planting slips or seeds or bulbs, or any real gardening, it is better for the beginners to see it done. What seems so easy to the practised hand does not come by nature. To plant firmly and not too tightly, to scatter seeds just rightly and give them enough but not too much moisture; such trifles as mingling the smaller seeds with sand to ensure sufficiently thin sowing and shading; the differing needs as regards water and drainage of flowering plants and Ferns—all these things must be learned, and are much better learnt from observation and experience. An excellent plan that has been adopted and found to answer well is for a committee to allow itself to be appointed, the members of which give free advice and instructions to any who may apply for them.

But, happily, gardening and a love for it comes naturally to most poor people; they have an inborn sympathy with nature which sometimes struggles almost pathetically for expression. Grottoes with bits of Fern in them, a few sticks with Scarlet Runners brightening some unlikely corner—these are the straws which show which way the wind blows. There is no doubt that the inhabitants of the city and of slumland, once started on the right track, would strike out fresh paths for themselves. Other things hold flowers besides pots; there are tins and boxes made of wood, which, with holes pierced and a little manipulation, make capital flower receptacles.

"The most unfurnished with the means of life,  
And they that never pass their brick wall bounds,  
Yet feel the burning instinct; overhead  
Suspend their crazy boxes, planted thick  
And watered duly."

Can we do nothing to help the poor "unfurnished?" In the next chapter those experienced workers who have been either written to or interviewed shall make their remarks and give their advice as far as possible in their own words. F. A. L.

#### NOTES FROM WORCESTER-SHIRE.

FRITILLARIA ASKHABADENSIS.—Though not showy, this has many good qualities, chief amongst which are the lasting character of the flowers and the neat way in which they fade—so different to most of the Crown Imperials. It is so early above ground that to be seen at its best it *must* be planted in a position where neither morning sun nor wind can reach



PRIZE WINDOW GARDEN OF MR. H. A. WILLEY, EXETER.

*From a photograph sent by Mrs. Bardswell.)*

they have been sacrificing too precious moments. In one respect the poor are better off than are their richer neighbours. How often from people luxuriously placed we hear the complaint, "We cannot grow flowers in London, because during the holidays there is no one to look after them." At all events, this drawback is not a difficulty to the poor people who have no holidays at all, or only very, very short ones that come like angels' visits, long looked for and long remembered. Potting about and dawdling over one's flowers is very delightful, and there is no doubt they like it very well (almost as much as we do), but it can be done without. And there is such an amiable independence and willingness to take a hint about all plants. Look at this trailer outside your window

it. In this garden it made its appearance on February 17, coming into flower on March 22, and remaining in good condition for nearly three weeks. Its distinct appearance and graceful habit have attracted more attention from my gardening friends than I had expected.

**IRIS SINDPERS** (*sindjarensis* × *persica*), which I obtained through a friend from Van Tubergen, has been splendid in my cold greenhouse. The foliage is arranged like that of *I. persica*, but is narrower, more lax, and of a deeper shade of glossy green than *I. sindjarensis*. The flowers are not stem-clasping, as in the latter, and are somewhat larger. The standards are a silvery blue-grey, slightly narrower than those of *I. sindjarensis*; the crest prominent, as in that variety, but more brightly marked with yellow. The falls are a peculiar combination of grey, slate blue, and green. The fragrance is more delicious than *I. sindpers*, and really resembles that of *Violets*. My one bulb is large and elongate-oblong in shape, and it has produced five flowers.

**I. RETICULATA CYANEO-ALBA**, from Max Leichtlin, is a dainty little plant with flower-stems only 2 inches high. The flower is very small, being easily covered by a half-crown, and the best description I can give of it is a miniature, pure white form of *I. reticulata*, with the usual rich orange banding and foliage of the type.

**I. RETICULATA ARIADNE**, also from Baden-Baden, has standards of dark mauve-blue several shades darker than the lovely *I. r. Melusine*. In my plant two of the falls were of a rich violet colour, while the third was peculiarly marked half white and half violet, evidently a kind of sport. Of my

**SNOWDROPS**, *G. Elwesii unguiculatus* has been the one I liked best. Apparently it only differs from the type in the larger size of its flowers, and also in the segments of the perianth, which are oval and taper at the base into a comparatively long stalk. It is certainly a better plant than *G. Elwesii* as far as my experience with it goes. On the 12th inst. that superb

**DAFFODIL KING ALFRED** opened. This and *Anemone blanda* var. *scythinica* are now the loveliest flowers in the garden. Unfortunately, this noble Daffodil will not succeed everywhere, and in some soils gets the "yellows," a trouble with which most growers are acquainted. On some soils I hear of King Alfred quite dying out, and it evidently inherits some of the uncertain qualities of *N. maximus*. This latter, by the way, does well here on a deep, warm, south border in light loam, and is left undisturbed as long as it flowers satisfactorily. My plants of *Anemone blanda* var. *scythinica* came from Max Leichtlin, and are beset with dozens of flowers, an exquisite combination of white and blue with yellow stamens. Surely this is the plant to grow with *Erica carnea*, as here they are both out together, and would make an admirable contrast.

**TROPEOLUM SPECIOSUM** has come through the winter without being cut down, and is now breaking strongly from last year's stems about 12 feet from the ground as well as from the base. It always flowers much earlier and more profusely when it is not cut down, but this only occurs in a mild winter.

**SOLANUM JASMINOIDES** and **JASMINUM PRIMULINUM** are both starting well into growth, and the latter on a very sheltered and shady wall is showing flower. It may just prove hardy enough to succeed outside, but will never be so useful a plant as the old *J. nudiflorum*.

**ANEMONE FULGENS** has baffled me for some years, and at length I have succeeded in growing it. Three years ago I planted some roots amongst Tea Roses on a warm south border sheltered by a low wall and greenhouse. The (made) soil is a sandy loam, and the position almost the same that suits *Narcissus maximus* so well. The first year after planting the plants flowered sparsely, and the second year showed only a slight improvement. This year its leaves and flowers have simply covered the ground at the foot of the wall, and there has been a grand display. I often hear of this plant thriving well in the South, and have had some remarkable blooms sent me which were grown

in Hampshire, but as yet I have not seen anyone in the North and Midlands refer to it. If this note chances to catch the eye of a successful cultivator in either of the districts named perhaps he or she will further enlighten me as to the correct mode of treatment of this grand flower. I am anxious to see how

**ROSA SINICA ANEMONE** is going to do. It was planted twelve months ago last autumn on the same wall which shelters *Solanum jasminoides*, and made fair growth, though if the winter had happened to have been severe I am afraid that not much of it would have been left, as it did not get enough sun to ripen its wood properly. However, it is growing away well now, and is already in bud, so that I hope to have it in flower before May is out.

Kidderminster.

ARTHUR R. GOODWIN.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### RECENTLY PLANTED SHRUBS.

**M**ARCH and April have been so unusually dry that many trees and shrubs which were planted this year and last autumn will be better for a copious watering. Before watering remove the mulching material and bank the soil around the shrub so as to form a basin to receive the water. If, previous to replacing the mulch, the surface soil is lightly raked, it will prevent excessive evaporation. Where rabbits abound the wire guards must be securely pegged down.

#### CLIMBING PLANTS.

The young shoots of *Clematis* will frequently require regulating and tying. Many of the young Rose leaves are curled up, and it is here that we must look for green fly, which, when detected, must be exterminated before the numbers increase. Syringing with *Quassia Chips* water is a cleanly remedy, and the *Quassia* leaves a peculiar bitter taste, which evidently is unpalatable to green fly for some time. As such wall plants as the *Forsythias*, *Ceanothus cuneatus*, *C. rigidus*, &c., pass out of flower they should receive any needful pruning; but in many private gardens where quantities of cut flowers are required, these plants, and, indeed, most flowering shrubs, need but little pruning. The cutting for the vases, if done with judgment, suffices. In the colder parts of the country any wall plants of doubtful hardiness will ripen their growths better and be more likely to withstand cold weather if the growths are kept well thinned. In a cool, fairly moist soil

#### TROPEOLUM SPECIOSUM

can be grown nearly as well in the southern counties as further north. Two years ago I saw a good specimen growing against the east wall of a dwelling-house in the south of Cornwall. *Tropeolum tuberosum* succeeds under the same treatment as *T. speciosum*, but the soil must not be so rich or there will be more leaves than flowers. *T. lobbianum*, the Canary Creeper, and the tall growing forms of *T. majus* are also most useful for quickly covering a bare space. Tubers and seeds may now be planted and sown in the open ground.

#### HERBACEOUS BORDERS.

Many of the *Pæonies*, *Delphiniums*, &c., now require staking and tying. In the case of the *Pæonies* it is usually sufficient to place a tie around the stems beneath the leaves, taking care not to "bunch" the plants. As both the single and double forms of the Pheasant's Eye *Narcissus* frequently fail to burst the flower sheath it is wise to snip off the ends of the sheaths with a pair of scissors.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

### FRUIT GARDEN.

#### PINES.

The fruits of the earliest *Queens* are now swelling rapidly, and the plants must be kept moist at the

roots. Give guano water and diluted liquid manure water with alternate waterings until the fruits change colour. Do not syringe the plants heavily overhead or large crowns will be the result. Merely spray them when closing the house, damp the paths, walls, &c. Close the house early and allow the temperature to reach 95°. When the fruits change colour keep the atmosphere of the house drier, withhold water from the roots, and have a freer circulation of warm air. If only one or two fruits are changing colour remove the plants to a cooler house. If more fruits are ripening than are required remove the plants to a cool vinery or fruit room, where they will keep in good condition some time. Plants in flower should be kept in a drier atmosphere until the flowers are fertilised, after which they will require the same treatment as the earliest plants. Shade lightly during the brightest part of the day. Plants potted in February and March should be encouraged to make sturdy growth by giving air freely in the early part of bright days. Guard against hot pipes, and take advantage of sun-heat by closing early and allow the temperature to run up to 90°, falling to 68° in the morning. Give weak soot water and diluted liquid manure occasionally, and guard against scorching by shading from about 10.30 to 2.30. Pot on any plants which were not repotted last month, and repot suckers sufficiently rooted, also put in suckers as required as soon as they become large enough.

#### STRAWBERRIES.

All these plants should now be removed from the vineries and Peach houses, the shelves thoroughly syringed with insecticide that will destroy red spider. Later plants will ripen their fruit better in a cool house or Peach case, where the syringe can be well used all round them.

#### CHERRIES AND PLUMS.

Late varieties in cool houses have had most favourable weather during the time they have been in flower, and a good set is the result; the house should now receive a light fumigation. Grubs should be looked for daily by examining curled leaves. Trees grown in pots or planted out should be mulched; those planted out should be well watered shortly before the fruit changes colour, and thoroughly syringed on bright mornings only. The feeding and syringing of Plums may be continued much longer than Cherries. Thin the fruits freely on trees grown in pots, and keep the growths in check by constant pinching.

Impney Gardens, Droitwich.

F. JORDAN.

### KITCHEN GARDEN.

#### BETROOT.

The main crop may now be got in, the land should be well prepared and manured with well rotted material; fresh manure is apt to cause too strong and coarse growth. Beetroot seed is often badly ripened, and it is well to test before sowing. If the seed is fresh it may be sown thinly in drills 15 inches apart. Let the seedlings be thinned first to about 3 inches apart, and three weeks later to about 6 inches. If blanks occur in the rows they may be safely transplanted, and if this is done in showery weather results will be quite satisfactory. The best variety for all purposes is Dell's Crimson, and if two sorts are desired Pragnell's Exhibition is a good sort and is fit for use earlier. If very early roots are required a little seed of the Turnip-rooted sorts should be sown at once, as they are fit for use several weeks in advance of the long-rooted varieties.

#### EARLY CABBAGES.

To ensure a succession of Cabbages to those sown in frames in February, a good sowing should be made now or a little later in May, so as to come into use in September and October. Before planting out those in frames or boxes they must be hardened off. When planted they should stand about 18 inches apart each way. Ellum's Early is a good sort at all seasons. See that firm planting is carried out.

#### EARLY BRUSSELS SPROUTS.

Plants raised from seed sown at the same time as Early Cauliflower will now be large enough to

plant out, and will make a good succession to those sown in the autumn. Select a good piece of ground that has been trenched, draw drills 4 inches deep and 2½ feet apart, the plants should be 2 feet apart in the rows. If the ground is subject to grub the roots may be dipped in a mixture of soil to which has been added a handful of soot and lime, the whole made into a paste. They may be given a good soaking of soot water frequently.

## PEAS.

Put stakes to any that are in need of support. Place the stakes several inches from the rows, and see that they are sharp at the ends. They should be placed in slantingly, the tendrils then get hold sooner, and small sticks at the bottom are not required.

## GENERAL REMARKS.

Close attention must now be paid to keep up a succession of Lettuce, Radish, Spinach, &c.; sowing in each case should be done fortnightly.

a gentle bottom-heat in a close warm frame these will soon emit roots. Afterwards give them cooler treatment. Directly they are ready give them a shift into 4-inch or 5-inch pots, and grow them throughout the summer with full exposure to air, light, and sun to ripen the growth. Plants grown from cuttings taken the previous autumn are now rapidly developing their flowers, and will require all the assistance that can be given in the way of stimulants.

## GARDENIAS.

An abundance of heat and moisture is required by these plants. Generally the best results are obtained by planting them in a bed. The roots of plants that are confined in pots will require moisture in abundance and to be well nourished by the application of manure liquid as well as a little of Clay's Fertilizer. Directly the first crop of flowers is over, such plants, if pruned back and treated liberally afterwards in respect of heat and moisture, will grow well and flower again during the autumn.

sepals, on account of the bright large chestnut-brown blotches. Judging the flower all round, it may well be classed as a good variety, but is not so fine as several known forms. We have seen a variety lately with one bulb carrying over sixty flowers, and the blooms were 4½ inches from petal to petal and from sepal to sepal.

## WORK FOR THE WEEK.

## LELIA JONGHEANA.

THIS is a most useful and beautiful Orchid, flowering when these flowers are scarce, and having a good constitution. New roots will now be emitted from the last made growth, and then the requisite repotting or resurfacing is best accomplished. We find it to succeed better when suspended. The best receptacles are pots with three small holes for hanging them by, or non-perforated pans. A good compost consists of two parts fibrous peat, two parts chopped sphagnum, and one part leaf-soil, mixed together with some small crocks and coarse sand. Potting should be done rather firmly, keeping the compost low enough to allow of a top-dressing of sphagnum. Grow them in the intermediate house in a light position, shading them from strong direct sunshine.

## CATTLEYA HOUSE.

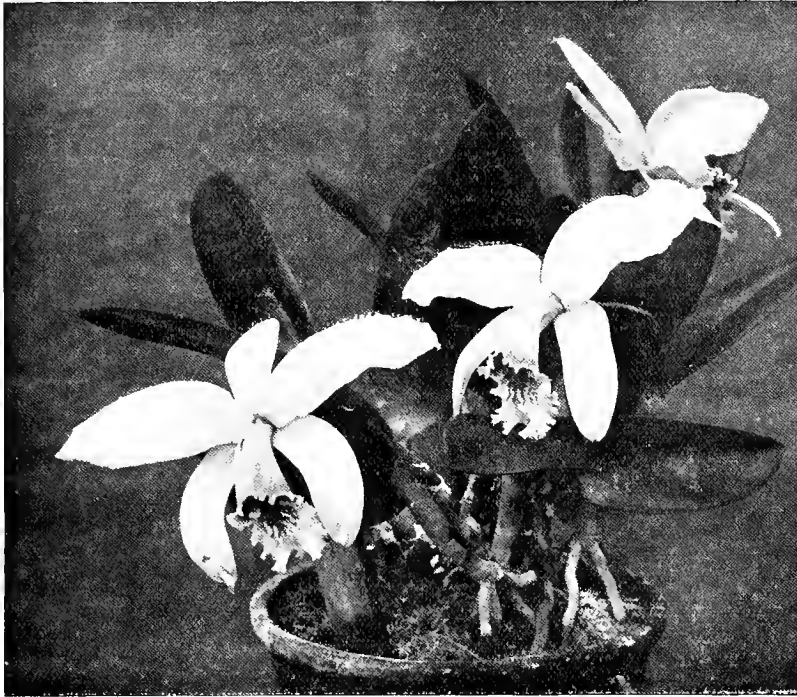
This house needs a good deal of attention at this season. Many plants are emitting roots from the base of the last made pseudo-bulb. These should be resurfaced or repotted as the case demands. *C. Mossiae*, *C. Mendelii*, and many hybrids are now throwing up their flowers, and well-rooted plants should be kept well supplied with water and given a light position. *C. Schröderæ* is now passing out of flower, and will require little water till new growth begins. *C. aurea* and *C. gigas*, that have been kept rather dry since early winter, are now starting into growth, and some may be emitting roots. The latter may be resurfaced or potted, using the compost as advised for Cattleyas in previous calendars. From now till the completion of growth gradually increase the quantity of water as the growths develop. In most Cattleya houses there are some large plants that show signs of deterioration, which, if not taken in hand, will soon become very unsightly. If "collar root" appears the plants should be carefully pulled to pieces and rebuilt after the old back pseudo-bulbs have been removed. *C. bowringiana* may still be kept rather dry, increasing the supply when new growths appear. Potting should be done when the new roots are visible. *C. Skinneri* will be ready for potting soon after passing out of flower. *C. gaskelliana* may now be potted or otherwise renovated. Some *C. Trianae* are now growing well, and some are still resting, so that discrimination when watering must be exercised. From now till the end of August we shut our Cattleya houses for two or three hours during the afternoon, which we find very beneficial. Air is again put on about 5.30, and left on till the next afternoon, regulating it according to the outside condition. By this means the atmosphere is kept buoyant and pure, and is not conducive to soft, sappy growth.

Gatton Park Gardens, Reigate. W. P. BOUND.

## MISCELLANEOUS.

## TREES AND SHRUBS UNDER GLASS AT FINSBURY PARK.

IT was our pleasure a few days since to visit Finsbury Park, there to see the interesting collection of flowering trees and shrubs that have been acquired in recent years. Mr. Melville, the superintendent, has spared no pains to make the display an interesting one, and the large conservatory shows well how beautiful these trees and shrubs are under glass. Such a display cannot fail to impress those who see it with the beautiful character of the subjects brought before their notice in this way. The majority of London residents—and many of those too, who live in its suburbs—are unfamiliar with



LELIA JONGHEANA AT KEW.

Draw the soil to Cabbages, Peas, Beans, and other growing crops. Ply the hoe on fine days.

THOMAS HAY.

Hopetown House Gardens, Queensferry, N.B.

## INDOOR GARDEN.

## HYDRANGEA PANICULATA GRANDIFLORA.

WHETHER grown as standard or dwarf plants this is equally useful. It is of easy culture, and if submitted to abundance of air and light the growth will be short jointed and strong, and may be expected to produce fine large heads of flowers. The plants will require a liberal supply of stimulants, liquid cow and sheep manure, together with a little soot water and a dose or two of Clay's Fertilizer being suitable manures for the purpose. Syringing the plants two or three times a day is necessary to keep red spider in check. Prune back the shoots to within one or two eyes of their base on those plants required for late flowering, and place them in a close but cool position, and syringe occasionally to induce them to break strongly and freely.

## HYDRANGEA HORTENSIS.

This should be propagated by inserting at once, singly in 3-inch pots, a few cuttings obtained from shoots that are not showing flower. If plunged in

in heat, with moderate shade from strong sun, as well as moisture in the atmosphere.

Tranby Croft, Hull.

J. P. LEADEBETTER.

## ORCHIDS.

## CYPRIPIEDUM ROTHSCILDIANUM.

FROM The Gardens, Monk's Manor, Lincoln, Mr. G. T. Warrington writes: "I send you a photograph of *Cypripedium rothschildianum*—[Unfortunately, not suitable for reproduction.—Ed.]—which you may care to publish.

I received the plant when quite small nine years ago. It has been grown in an ordinary stove, and has flowered regularly for the last six years. This year it has five spikes, which carried nineteen flowers. No particular treatment has been given. The plant is potted in peat, sphagnum, with a little loam and charcoal intermixed."

## ODONTOGLOSSUM ANDERSONIANUM.

THIS is a natural hybrid between *O. crispum* and *O. gloriosum*. It varies greatly, a variety, flowers of which have been sent by Mr. D. M. Grimsdale, Kent Lodge, Uxbridge, having exceptionally good

the abundance of flowering trees and shrubs that may be acquired so cheaply. To make the visitors to Finsbury Park familiar with some of the beautiful things now at their best, the fine display in the conservatory serves this purpose. The grouping is excellent. Down the centre of the house there is a serpentine path, and the plants are grouped for colour effect in a most pleasing manner. Form of individual plants has also been considered, so that the grace and beauty of one contrasts with the stiffer-growing character of the other. The different shrubs are disposed with care, so that each one assists in the display, and a finish is given by the ordinary occupants of the glass structure.

Large and handsome bushes of *Spiræa confusa* had been, and were still, in fine form, bearing an abundance of dainty clusters of white flowers. The flowering Crabs were exceptionally fine, and of these there was a good number. Their free-flowering branches in different shades of colour were distinctly pretty, and the specimens were also of fine proportions. We specially mention *Pyrus Malus floribunda*, *P. M. atrosanguinea*, and *P. spectabilis fl. roseo-pleno*. These three plants in themselves were most effective. Contrasted with the last-mentioned were occasional specimens of the double flowering Almond (*Amygdalus persica fl.-pl.*), with its deep pink blossoms of a most attractive shade of colour. A very dainty bush was the beautiful *Prunus sinensis albo pleno*, the blossoms being profusely developed, and the specimens large. Of Lilacs there were Charles X. (under glass quite a pale colour), and a fine white, Marie Legraye. The lovely double rose flowering Cherry (*Cerasus Watererii*) was most striking, and good use was made of it. Other interesting plants were *Forsythia viridissima*, *Magnolia alba superba*, and the snow-white Guelder Rose (*Viburnum plicatum*), the latter being specially attractive. The sweetly-scented *Staphylea colchica*, with dense clusters of white flowers, was much admired. Good specimens of the *Deutzias* were also in evidence, and these, together with such plants as *Dielytra spectabilis*, completed a beautiful display. There were many other plants out of doors in pots, to be brought indoors to continue the display, so that the spring will be well advanced before this feature at Finsbury Park is over. The Ghent and mollis Azaleas, and quite a number of other things will, at a later date, add to the display. This exhibition of flowering trees and shrubs has much to commend it, and other London parks might well follow the excellent example set at Finsbury.

D. B. C.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE EFFECT OF EXHIBITIONS ON POTATO CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am tempted to write these notes through reading a remark by Mr. B. Ashton, in his interesting article on cultivating and exhibiting the Potato, page 276. After giving a list of suitable varieties for the purpose in view, Mr. Ashton observes, "and I might add International Kidney, which has perhaps been awarded more prizes than any Potato ever grown, though its fine appearance is its only recommendation." There is food for a considerable amount of thought in the above sentence, assuming that the statement is substantially correct. Here we have a variety of Potato, a record prize-winner, which has fine appearance to recommend it, and nothing else. Surely there is something that needs altering here! Gardening societies and shows are supposed to exist, so far as vegetables are concerned, in order to promote and encourage the cultivation of the best and most profitable, yet here we have a Potato, and it is not the only one by any means, that wins prizes frequently, and yet, with regard to flavour, it is not worth growing compared to many others. I will venture to say that there are

numerous Potatoes, besides the one referred to, that would quickly be discarded, and in a short time would drop out of cultivation altogether if it were not for exhibitions. The fact is, they happen to possess the charm of good looks, and, having nothing but appearance on their side, they are grown simply for show, and, unfortunately, they often take prizes over the heads of infinitely better varieties. There would not be so much room for complaint if all really good Potatoes were ugly, but such is not the case. A Potato (and there are plenty of them in the market) which combines good looks with high quality and heavy cropping powers is an ideal variety for a man to grow, whether he is an exhibitor or otherwise, because everyone knows that an ugly, deep-eyed tuber is unprofitable, because the best part of it is cut to waste in the process of peeling.

Exhibitions are a mistake when they encourage varieties that have good looks to recommend them and nothing else. It is an undisputed fact that at the majority of shows Potatoes are judged entirely by appearance, and with an array of dishes before them the eyes of the adjudicators fall at once on the nicest-looking tubers. It is not to be wondered at that exhibitors are alive to all this. They know it is the pretty tuber that catches the judge's eye, and their object is to win prizes, consequently a number of admittedly poor, though nice-looking, Potatoes are grown purely and simply for show, and at their hands far better varieties suffer defeat. The deduction which naturally follows is that shows are keeping in cultivation a class of inferior Potatoes which could readily be dispensed with. Is there no remedy? It is quite obvious that Potatoes at shows cannot be cooked to test their eating qualities, and, again, varieties vary considerably when grown under different conditions, so it comes to be largely a question of knowledge on the part of the judges. Most of the nice-looking but practically worthless varieties have been exhibited long enough to become known, and every person who takes upon himself the judging of Potatoes is, or ought to be, acquainted with them. In a word, they should be passed over with a spirit of boycott, the reason being given, and they would soon cease to appear on show tables. Another way would be for every society to have a black list of undesirable varieties, and insist on all dishes of Potatoes exhibited being correctly named. In a few instances something is done in this direction, and as a case in point I am acquainted with a society the members of which exhibited largely a well-known local Potato of pleasing appearance but otherwise worthless. After a good deal of discussion it was finally decided that no prize should be given to the variety in question at any meeting of the society, and the result was that it was at once banished from the gardens of the members for the sake of something better.

I only mention the above as suggestions, which might probably be improved upon, but it is time that something was done to prevent worthless Potatoes winning prizes at exhibitions. No one ought to be able to say that vegetable shows do not encourage the cultivation of the best, and the best alone, but while this haphazard, unsatisfactory way of awarding prizes to Potatoes which please only the eye exists, the above charge can not only be made but proved into the bargain. G. H. H.

### DESTRUCTION OF WILD FLOWERS.

UNLAWFUL IN MUNICH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to the call for suggestions at the finish of "F. A. B.'s" vigorous appeal on the above subject in THE GARDEN on the 23rd ult., I may mention that to stop the wholesale destruction of the indigenous flora the magistrates of Munich have only quite recently decreed the offering for sale in the Munich markets or by hawkers of wild plants with roots to be unlawful. E. HEINRICH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read with great pleasure the letters of "K. L. D." and "F. A. B." on "Destruction of

Wild Flowers." I for one shall be glad to unite with others in doing all I can to stop this pernicious practice. A. J. KEEN.

*Buckland Gardens, Bulch, R.S.O., Breconshire.*

### POTATO SETS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to notice in THE GARDEN the remarks regarding Potato seed from such an experienced cultivator as Mr. Wythes. I can confirm what he says as to the small sets sent out this season by seedsmen for seed purposes. I have had several lots from some of our large English seed firms, and I have been very much disappointed with the sets that were sent to me. In the majority of cases they were very small indeed; in fact, some were just the size of an ordinary marble. If it were not for the reputation of some of the growers I should have had considerable hesitation in planting the stock. However, the varieties are scarce and expensive, and I suppose this is, in no small measure, the cause of the small sets that are being sold. I am also glad to hear such a high opinion expressed regarding northern-grown seed from such an authority as Mr. Wythes, and his experience is fully confirmed, I notice, by other large southern growers. In every case I have had the opportunity of watching I find that Scotch-grown seed has always given great satisfaction, and has produced a much heavier crop than the home-grown. I find here in Midlothian that we get better results from seed secured from further north, and the crop is always heavier and healthier. It will be interesting to growers to know the result of trials which, I notice, "A. D." is making this year. Doubtless, the information will be communicated to THE GARDEN in due time. Along with many others I will watch carefully for this, and I hope that "A. D." will give the benefit of his experiences this coming season with the varieties he is growing. I am testing here two new varieties which I understand will be distributed from Scotland this autumn. One is an early kidney, and the other is a second early round variety. Both are reputed to be enormous croppers, and are said to be disease-resisting, but a good many independent tests this year with varieties of proved merit will settle the above points. One good feature about the stock that will be placed on the market is this, none of it has been rushed, that is to say, it has not been propagated from single eyes grown in 2½-inch pots, &c. This practice is, I am afraid, playing sad havoc with the constitutions of several of our newer varieties of Potatoes, and is, in my opinion, taking what vigour and strength there is in them rapidly away before they reach a price at which they can be profitably grown by the majority of gardeners and farmers.

*Inveresk, Midlothian.* G. M. TAYLOR.

### THE PROPOSED GARDENERS' ASSOCIATION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Permit me to endorse the opinions of your correspondent in THE GARDEN of the 23rd ult. in his belief that the proposed Gardeners' Association will eventually benefit both employer and employed. Registration of gardeners and regulation of wages and of working hours are sadly wanted. Writing as one who knows gardeners very well, I feel certain that the knowledge he is overworked and poorly paid is a great drag upon almost any man's usefulness, and I often feel bound to admire the energy and love that gardeners display in their work contrasted to the encouragement, both in praise and in wages, that they receive. It is also my belief that better conditions for the gardener would greatly tend to check the perpetual change of staff which is, to my mind, the bane of many gardens. It is well enough for the young man to be journeying about gleaming experience, but when he reaches, say, twenty-five, what with head gardeners' positions—posts so hard to get—and journeymen's and even foremen's positions barely affording a living wage, the future is indeed a problem to him. I am certain that employers

would find a larger proportion of better-paid permanent hands a great boon to their gardens, and it is by initiating a movement in this direction that I, amongst others, anticipate good from the proposed Gardeners' Association, and therefore heartily support its formation. JASON.

## ROSE SHOW FIXTURES FOR 1904.

- June 15 (Wednesday).—York. †  
 „ 27 (Monday).—Isle of Wight (Ryde).  
 „ 29 (Wednesday).—Chippenham, Farnham, Farningham and Richmond (Surrey).  
 „ 30 (Thursday).—Canterbury and Colchester.  
 July 2 (Saturday).—Sutton (Surrey).  
 „ 4 (Monday).—Maidstone.  
 „ 6 (Wednesday).—Temple Gardens (N.R.S.), Croydon, Ealing, Hanley,\* Ipswich, and Southampton.\*  
 „ 7 (Thursday).—Chipping Norton, Norwich, and Walton-on-Thames.  
 „ 8 (Friday).—Brockham.  
 „ 9 (Saturday).—Warminster and Windsor.  
 „ 12 (Tuesday).—Gloucester and Wolverhampton. †  
 „ 13 (Wednesday).—Formby, Harrow, Reading, Stevenage, and Thornton Heath.  
 „ 14 (Thursday).—Bath, Eltham, Helensburgh, Southsea,\* and Woodbridge.  
 „ 15 (Friday).—Gresford and Ulverston.  
 „ 16 (Saturday).—Manchester.  
 „ 19 (Tuesday).—Saltaire and Tibshelf.  
 „ 21 (Thursday).—Halifax.  
 „ 27 (Wednesday).—Cardiff\* and Newcastle-on-Tyne. †  
 Aug. 13 (Saturday).—Sheffield.  
 Sept. 20 (Tuesday).—Royal Horticultural Hall, Westminster (N.R.S.).

\* Shows lasting two days. † Lasting three days.

EDWARD MAWLEY.

Rosebank, Berkhamsted, Herts.

## NOTES FROM THE MARKETS.

**G**IANT MIGNONETTE.—Mignonette is perhaps one of the plants most prone to deterioration unless great care is taken in the selection of stock. I have before me some specimens of Machet, the largest spikes measuring 7½ inches in circumference and about 6 inches deep; the individual flowers are very large. The grower, Mr. Ward of Southgate, tells me that his father took half the first pound of seed that was sent over. They have kept to the same stock ever since, but have greatly improved it. The plants now in the market are from seed sown last August, and grown on singly in 4½-inch pots, being stopped once and pegged down, which induces the side shoots to start evenly. Each plant produces from five to seven or eight large spikes of bloom. Good culture, of course, has something to do with the enormous spikes of bloom. Mr. Ward is fortunate in possessing such a fine strain.

**Zonal Pelargoniums.**—These are now a great feature in the market; beautifully-flowered plants are coming from several growers. As flowering plants in 4½-inch pots they have certainly come much to the front during the last few years. The semi-double varieties are the most prominent just now, but the singles will be equally plentiful shortly. The best crimsons are F. V. Raspail, improved and double H. Jacoby, light or rosy scarlet; Ville de Poitiers is very good. In pinks, Roty, a newer variety, appears very promising; Berthe de Presilly is a lovely shade of pink, and is now seen at its best. King of Denmark still holds its place as the best semi-double salmon-coloured sort, and Hermione is the favourite white. In single varieties Hall Caine and Robert Hayes are worthy of note. For window boxes and bedding West Brighton Gem is much in demand,

and well-flowered plants are plentiful. Ivy-leaved Pelargoniums are also coming in plentifully now—Galilee and Mme. Crousse, beautifully-flowered plants in 4½-inch pots. Show Pelargoniums are also more plentiful now, but they are not yet quite up to what we used to see a few years ago.

**Rhodanthe**, which market growers do so well, is now plentiful. This sells well in pots, but many buy to cut off and dry the flowers; that which comes in early is best for this purpose, as the flowers are not too far advanced, and keep better after they are dried.

**Intermediate Stocks.**—The crimsons are always most in demand, but the whites have been most plentiful. Harrison's Musk is now plentiful, but it is not quite so much in demand as formerly.

**Verbenas.**—The success of Verbena Miss E. Willmott has led growers to try other sorts. I have not yet seen the scarlet Warley, but there is a good purple and a white variety coming. Heliotropes are now very plentiful in well-flowered plants. Hydrangeas, both pink and white, are now at their best.

**Single Petunias.**—It is surprising what large quantities of these are sold during the season; one grower told me he had 60,000 in pots, and I believe there are several others who grow them in equally large quantities. Mimulus is another favourite, and the Covent Garden growers have a very fine strain, the flowers being of great size and rich in colouring. Purchasers should give them good ground with plenty of manure, and they will do well. A. H.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY. DRILL HALL MEETING.

THERE was a splendid display of plants and flowers at the Drill Hall on Tuesday last, perhaps as fine an exhibition as has ever been held there. Roses, hardy flowers, Daffodils, Tulips, Orchids, and trees and shrubs in flower were shown in bewildering quantity. There were several new plants and flowers of merit, which are fully described below.

#### ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, de B. Crawshaw, H. M. Pollett, Norman C. Cookson, Walter Cobb, Francis Wellesley, Jeremiah Colman, James Douglas, W. A. Bilney, H. T. Pitt, Richard G. Thwaites, A. A. McBean, F. W. Ashton, T. W. Bond, M. Gleeson, H. G. Morris, H. A. Tracy, G. F. Moore, W. H. Young, H. J. Chapman, W. H. White, J. Wilson Potter, F. Sander, H. Little, J. Gurney Fowler, and W. Boxall.

The group of Orchids shown by H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood), contained many choice plants. *Odontoglossum wilkeanum* Pittie (cultural commendation), carrying a raceme of sixteen flowers, was very fine. *O. crispum canoanum*, heavily spotted with chocolate; *O. c.* The Geisha, yellow ground, with chocolate markings; *O. c.* Pink Pearl, *O. Adriane*, *O. A. Canary Bird*, *Oncidium leucochilum*, *Vanda denisoniana*, *Cattleya Schroderae*, *C. lawrenceana*, *C. William Murray*, *Laelia purpurata Novelty*, and *Anguloa uniflora* were other good things in this group. Silver-gilt Flora medal.

Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. Chapman), exhibited a group of miscellaneous Orchids, in which *Cattleya Jupiter Oakwood* var. was splendid; *C. William Murray*, *C. oakwoodensis*, hybrid Phaius (among them P. Phoebe), some very handsome spotted forms of *Odontoglossum crispum*, *Cypripedium callosum* Sandere, and *C. lawrenceanum hyeanum* (Oakwood seedling) were others. Among the *Odontoglossums* were *O. c. xanthotes* var. *Cooksoniae* and *O. c. Clive*. Silver-gilt Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited a group of Orchids, in which *Cymbidium lowianum illustre*, *Cattleya intermedia alba*, *Laelio-Cattleya Martinetti* (C. Mossie X L. tenebrasa), *L.-C. Aphrodite*, *L.-C. Mzart*, *Odontoglossum polyanthum*, *O. triumphans latispalum*, *O. crispum* vars., *Miltonia vexillaria Augusta Victoria*, and *Cypripedium Annie Measures* were some of the best things shown. Silver Flora medal.

H. S. Goodson, Esq., Putney (gardener, Mr. George E. Day), exhibited a pretty display of Orchids, among which finely-flowered *Deodorium wardenianum*, *D. crassinode*, and *D. noble* were prominent. There were also Phaius, *Cattleya Mendelii*, *Zygopetalum crinitum*, *Oncidium concolor*, *Cattleya citrina*, and others. Silver Flora medal.

In the group from Messrs. James Cypher and Sons, Cheltenham, were some good *Laelia purpurata* in several varieties, that made an effective centre. *Cattleya Skinneri*, *C. Skinneri X Laelia purpurata*, *C. Schroderae*, *C. citrina*, *Miltonia vexillaria*, *Oncidium varicosum*, *Masdevallia haryana* Scarlet King, and *M. Heathii* were also well shown. Silver Flora medal.

Messrs. Stanley, Ashton, and Co., Southgate, N., had some excellent *Oncidium varicosum* Rogersii, *Odontoglossum crispum* varieties, *O. Adriane*, *Laelia elegans*, *Cymbidium lowianum concolor*, *Cattleya schilleriana*, *Masdevallia Pourbaixii*, &c. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, had a very bright exhibit of Orchids in variety, among which were

some very choice things, for instance, *Laelio-Cattleya G. S' Ball*, *L.-C. Mercia*, *Cattleya Schroderae majestica*, *C. Jupiter* (*C. lawrenceana X C. gigas*), *L.-C. Dora*, *Brasso-Cattleya Schroderae-digbyana*, *L.-C. wellsiana alba*, *Brasso-Cattleya Mossie-digbyana*, *Spathoglottis kimballiana*, *Odontoglossum Adriane*, and *L.-C. hyeana splendens* (*L. purpurata X C. lawrenceana*). Silver Flora medal.

A vote of thanks was given to Baron Sir Henry Schröder, Bart., The Dell, Egham (gardener, Mr. Ballantine), for cut racemes of some lovely *Odontoglossums*. Among them were *O. Pescatorei schroderianum*, *O. luteo-purpureum*, *O. wilkeanum*, *O. w. giganteum*, *O. triumphans* var. *latispalum*, and *O. excellens* var. *dellense*.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group, in which we noticed *Cypripedium grande*, *C. caudatum*, *Cattleya intermedia alba*, *C. Mozart* (*C. lobata X C. lawrenceana*), *Miltonia Roezlii*, *Lycaste aromatica*, &c. Vote of thanks.

C. J. Lucas, Esq., Warnham Court, Horsham (gardener Mr. G. Duncan), showed some beautiful forms of *Odontoglossum crispum*, *O. triumphans*, *O. andersonianum*, and others.

J. Bradshaw, Esq., Southgate, N. (gardener, Mr. George Whitelegge), exhibited a group of Orchids, in which some good forms of *Lycaste Skinneri* were to be seen. *Cattleya Schroderae*, *C. S. alba*, *C. intermedia alba*, *C. lawrenceana*, *C. Mendelii*, *Laelia Latona*, *L.-C. lucasiana*, *Lycaste Ballie*, and some pretty spotted and unspotted forms of *Odontoglossum crispum* were also included, as well as finely-flowered plants of *Cymbidium lowianum* and *Oncidium marshallianum*. Silver Flora medal.

Mr. H. Druce, St. John's Wood, showed some hybrid *Cypripediums*, which included *C. concolor X bellatulum*, *bellatulum nobilior*, *chamberlainianum X concolor* Regnier, and *niveum X bellatulum*.

#### NEW ORCHIDS.

*Odontoglossum crispum Cliv.*—A fairly large flower of excellent form. The sepals and petals are lilac-purple, fading to white towards the edge, and are marked with a few red spots. From W. Thompson, Esq., The Graze, Stone. Award of merit.

*Odontoglossum nebulosum Gurney Wilson.*—A heavily-spotted form of the "cloudlike *Odontoglossum*." The large, broad petals make the outline of the flower almost square. They are white, the sepals are tinged with pink, and both are heavily blotched with brown and pale purple. From G. Wilson, Esq., Glenthorne, Hayward's Heath. Award of merit.

#### FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. E. H. Jenkins, George Nicholson, J. Green, J. F. McLeod, William Howe, R. Hooper Pearson, C. R. Fielder, Charles Dixon, W. Bain, J. Jennings, Charles Jefferies, C. J. Salter, W. P. Thomson, Charles E. Shea, W. J. James, H. Turner, George Paul, C. T. Drury, J. W. Barr, and James Hudson.

Messrs. Cheal and Sons, Crawley, had a mixed group of flowering shrubs and alpines. The former contained Lilacs in variety, *Frunus*, *Cytisus purpureus pedunculata* (a very graceful plant), many beautiful Magnolias, Acers, and other good early things. In the alpines we noted *Epimedium niveum*, *Orchis mascula*, *Primula japonica* in many shades, early Phloxes, &c. *Guanera Monnierii*, with peltate leaves and crowded inflorescences, not more than 3 inches high, was extremely interesting. *Primula scotica* was also in good form. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, had a fine lot of flowering shrubs, in which *Cerasus pseudo-Cerasus* var. *Watereri* was a prominent plant. The great trusses of pale pink blossoms are very fine. *Pyrus Malus Schiedeckeri*, with ruddy buds and rose-pink flowers, was also beautiful. *Hydrangea Hortensia Veitchii*, with large white bracts in a terminal umbel, was very fine. *Oood*, *ton*, was *Fabiana imbricata* in flower, the stems wreathed with the tubular white blooms. *Cytisus kewensis*, with pale yellow flowers, was also shown. Silver Flora medal.

Mr. J. Russell, Richmond, showed Clematises in flower. We noted *Miss Bateman*, white; *Lucie Lemoine*, double white; *Mrs. George Jackman*, very fine white; *Mrs. S. A. Baker*, soft pink, very good form; and *Sir Garnet Wolseley*, reddish purple.

Acers formed the exhibit from Messrs. Peed and Son, West Norwood. The pale green of some of these is very pleasing just now, and it is hardly possible to over-estimate their value as decorative subjects indoors or outdoors. *Rose Dorothy Perkins*, the plants from 3 feet to 12 feet high, showed to advantage. Each lateral shoot, extending 1 foot or more, had its terminal truss of deep rose-coloured flowers, and in a setting of *Pteris tremula* made a really fine display. Bronze Flora medal.

Messrs. Carter and Co., High Holborn, staged in many brilliant colours *Cinerarias* of the stellata group, in company with the older forms so well known. Large in blossom, striking in colour, and of excellent form were scores of plants that for symmetry and free flowering could hardly be excelled. Some of the pure white forms were especially good, that with a pale buff-coloured disc being a distinct advance upon existing forms. Silver Flora medal.

Messrs. R. and G. Cuthbert, Southgate, again showed flowering shrubs; *Azaleas*, *Lilacs*, *Deutzia crecata* fl.-pl., *Labrunums*, and *Smilax* plants, with Acers here and there in the groundwork. The Ghent *Azalea Bronze Unique* is a fine piece of colour, well meriting the distinctive name. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, staged a most interesting and varied lot of plants; *Boronia*, unequalled for their fragrance, *Agatheae crelestis*, *Schizanthus Westonensis*, the yellow *Calla elliptica*, and *Chorizema Lowi*, white. A fine lot of *Anrlica Queen Alexandra* displayed this good garden plant to advantage.

From Lord Aldenham, Elstree, Herts (gardener, Mr. Beckett), came a most interesting and varied lot of cut shoots of flowering shrubs and trees. These made quite a valuable exhibit, demonstrating the value of such things in the open garden. Among the more important we noted

*Magnolia conspicua soulangeana*, *Kerria japonica*, very beautiful; *Amelanchier canadensis*, *Forsythia viridissima*, *Choisya*, *Berberis stenophylla* and other Lilacs, *Spirea arguta*, *Daphne pontica*, *Eleagnus loogipes*, and many more. Silver Flora medal.

Hobbies Limited, Dereham, sent a great variety of climbing and other Roses, and, as may have been expected, a few Dahlia blooms even at this season of the year. The Roses were of the Rambler class, such as Blush Rambler, Crimson Rambler, also Lady Roberts, Margaret Dickson, Boadicea, Purity, and others. Bronze Banksian medal.

Hardy Primulas, mostly of the P. Sieboldi group, formed the chief of an exhibit from Messrs. Ware and Co., Feltham. Some dozen or more sorts were shown in pans, and were very freely flowered. Other things noted were *Sarracenia flava*, *Primula Sikkimensis*, *P. involucrata*, *Anemone narcissiflora*, *Cypripedium pubescens*, *Gentiana verna*, with Tree Ferns and other plants. Silver Banksian medal.

Messrs. R. Wallace and Co., Colchester, staged a fine group of Tulips, in which T. retroflexa, T. Golden Crown, T. corouta, T. vitellina, and T. viduiflora præcox were all in good form. Of Darwin Tulips Pride of Haarlem, St. Bruno, and Diamond were well represented. *Aroëbia echioides*, *Lilium tenuifolium*, and *Fritillaria recurva* were also well shown in flower.

Mr. H. B. May, Edmooton, had a fine lot of zonal Pelargoniums in pots, the plants grouped to their colours. Interspersed with Peros the group was extremely effective. Silver Flora medal.

Messrs. George Jackman and Soo, Woking, again showed choice alpinos, as *Ranunculus*, *Viola pedata*, *Cypripedium macrorrhynchum*, *C. parviflorum*, *Cornus canadensis*, double Arabis, and others.

Messrs. Veitch and Sons, Limited, Chelsea, had *Corydalis thalictroides*, very fine; starchy *Cinerarias* in variety; *Kalanchoe felthameensis*, *Claiochus puniceus*, *Hydrangea hortensis rosea*, &c. A very distinct plant is *Cineraria Antiqua Rose*; it gives the impression of a single *Pyrethrum* rather than a *Cineraria*.

Messrs. Thomas Cripps and Son, Tunbridge Wells, had a charming group of Crimson Rambler Roses, Acers, Clematises, and other plants, that with a bordering of *Eurya latifolia* made a very pleasing exhibit. Silver Banksian medal.

*Schizanthus Wistoniensis* was admirably shown by W. G. James, Esq., West Dean Park, Chichester (gardener, Mr. W. Smith). The plants were perfect bushes, and represented some very distinct colours. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, had a large array of bedding, parrot, and cottage Tulips. Darwin sorts were less numerous, but all were good and showy in the extreme.

Messrs. Hogg and Robertson, Dublin, also showed Tulips very finely. Of early May-flowering sorts, *Rouge Eblouissante* is very fine, lilac and red, striped white; *La Réve*, *Pink Beauty*, *Lady Roberts*, *White Swan*, *Golden Eagle*, *Tulipa kolpakowskiana miniata* is very charming, also *T. Batalinii*.

Alpinos and hardy plants generally were shown by Mr. M. Prichard, Christchurch, Hants. *Scillas*, *Phloxes*, *Fritillaria*, *Tiarella cordifolia*, *Epimediums*, &c., being all in good bloom. *Onosma alba*, in fine condition, was here too. (See awards.) Bronze Banksian medal.

Rock plants and choice alpinos from the Guildford Hardy Plant Nursery were very beautiful. *Epimediums*, *Dryas*, *Saxifragas*, *Gentiana verna*, a lovely mass of colour. *Atragoe alpina*, *Onosma alba rosea*, *Phlox canadensis*, *Gentiana acaulis*, and *Saxifraga Guildford* Seedling were among the most charming of this lot. Bronze Banksian medal.

Mr. George Mount, Canterbury, had a display of Roses surpassing all his previous efforts. The masses of cut blooms were very fine; the climbing plants of the Rambler class very pleasing. Silver-gilt Flora medal.

Beautiful Roses also came from Messrs. B. R. Caot, Old Rose Gardens, Colchester. Mrs. J. Laing, The Bride, Duke of Wellington, Marchal Neil, the climbing Dorothy Perkins, and the pretty white Garland were of the best. Silver Flora medal.

A grand lot of *Nicotiana Sanderae* in pots came from Messrs. Sander and Sons, St. Albans. The plant is a really fine addition to good garden plants. Some eighteen freely branched specimens were shown in full bloom. (For fuller description see awards.) Silver Banksian medal.

*Narcissi* and Tulips from Messrs. R. H. Bath, Limited, Wisbech, were showy and good, quite representative of the late Daffodils and the early Tulips. The latter were in several sections and very fine. Silver Flora medal.

Messrs. Gilbert and Sons, Bourne, Lincolnshire, showed *Anemones* in single and double forms in some twelve distinct sorts. The double scarlet were extremely showy and good, the semi-double forms displaying much variation in colour. A pale form of *A. fulgens* is called The Queen. Silver Banksian medal.

Mr. G. Reuthe, Keston, had a good display of alpinos, together with choice Daffodils. *Meconopsis cambrica aurantiaca* fl.-pl., *Arnebia echioides*, *Cheiranthus alpinus*, several species of *Orchis*, *Viola pedata bicolor*, *Primula verticillata*, and *Armeria cespitosa* were all noticeable.

Cut *Camellias* in great variety were sent by Sir F. T. Barry, Bart., M.P., and demonstrated the value of these things in the open garden. It was stated that the flowers were cut from plants planted out of doors from four to thirty-three years ago. Bronze Banksian medal.

Hardy Rhododendrons in pots came from Messrs. J. Waterer and Son, Bagshot, many beautiful sorts in good flower being shown. Attention, however, centred chiefly upon *Pink Pearl*, exquisite in colouring, and of great size in flower and truss. It is very handsome. Silver Banksian medal.

Daffodils and Tulips from Messrs. Barr were very numerous and in good condition. Of the former, *Gloria Mundi*, *Willie Barr*, *Lord Roberts*, *Duke of Bedford*, *Egret*, *Gaiety*, *Ranger*, *Lady Andrey*, *Stella* fl.-pl., *Vivid*, and *Salmonetta* were some of the best. Tulips were also very fine. Darwin, Parrot, and other varieties were all in great numbers. Silver-gilt Flora medal.

Mr. E. Potten, Cranbrook, Kent, had a group of the Rose Dorothy Perkins in pots, very pleasing and well flowered.

Mr. A. Perry, Winchmore Hill, had a good display of hardy things. *Arabis alpina plena*, *Primula rosea*, double yellow *Wallflower*, *Fritillaria recurva*, *Geum Heldreichii*, *Iris nazarenis* (very fine), *Mertensia virginica*, *Haberlea rhodantha*, and *Primula*, *Megacelis* in variety, *Trillium*, *Aubrietia*, and other showy and good flowers were included.

Alpinos and other hardy flowers were well shown by Messrs. Cutbush and Sons, Highgate. *Gentians*, *Trilliums*, *japonica*, *Ranunculus*, *Gerbera Jamesonii*, and others were all well shown. A fine mass of *Adonis vernalis* was also shown. Silver Flora medal.

Messrs. Cooper, Taber, and Co., Southwark Street, S.E., showed a new French Pansy, *Mme. Perrett*. From the Royal Horticultural Society's gardens at Wisley numbers of spring flowers were show.

Mr. W. A. Watts, Bronwylfa, St. Asaph, North Wales, exhibited a group of hybrid *Polyanthus Primroses*, evidently a vigorous free-flowering strain.

A botanical certificate was given to *Digitalis canariensis* from Messrs. T. S. Ware, Limited, Feltham.

Lady Chichele Plowden, Aston Rowant House, Oxon, sent Algerian and English Sweet Peas; both strains were sown on September 27, 1903; the Algerian varieties were in flower by April 1, 1904, and the English ones apparently not yet.

The Misses Hopkins, Mere, Knutsford, Cheshire, had a pretty little group of hardy flowers, among which *Primula Sieboldi*, *Auricula Queen Alexandra*, *Daisy Alice*, *Aubrietias*, *Arabis*, &c., were shown.

Mr. Richard Anker (Frantz de Létré), Conlich-les-Amers, Belgium, showed *Cacti* and *Erica persoluta alba*, and *Azalea indica* in tiny pots, evidently much sought after for decoration.

Messrs. Cannell and Son, Swanley, Kent, had an admirable display of zonal and fancy *Pelargoniums* in many gorgeously coloured varieties. Silver Banksian medal.

Mr. John R. Box, West Wickham, arranged a small rocky planted with various alpinos and dwarf hardy plants, such as *Arabis abida* fl.-pl., *Alyssum*, *Saxifragas*, *Sedum*, *Aubrietia*, *Tiarella cordifolia*, *Asperula*, *Geum montanum*, &c.

*Pteris cretica* *Wimsetti plumosa* was shown by Mr. W. A. Cull, Bury House Nursery, Edmooton.

A vote of thanks was given to Mr. Frank Lloyd, Coombe House, Croydon, for Pansy Mark Mills. Very large, purple-maroon, with broad, well defined yellow edge.

Mr. Charles Turner, Slough, exhibited a very attractive group of *Auriculas* in numerous good varieties.

Rose Fortune's Yellow was finely shown from the gardens of Lady Wantage of Lockinge Park (gardener, Mr. W. Fyfe). The flowers were cut, and as arranged in vases with their own foliage they were very beautiful.

The cut Roses from Mr. Will Tayler, Osborn Nursery, Hampton, were extremely good, the large, handsome blooms on stout stems forming a very imposing display.

The general meeting of Fellows held during the afternoon was well attended, and M. Charles Baltet read a paper on "Enemies of the Apple Tree." Fifty-five candidates were elected Fellows, making a total of 553 since January 1 last. Amongst those elected were Lady Evelyn Cobbold, Commander Arthur Lingham, R.N., and Sir Nathaniel Nathau.

#### FLORAL COMMITTEE AWARDS.

*Nicotiana Sanderae*.—This is a charming new annual suited to the million, and in the near future it will doubtless be largely grown. The plant, as exhibited by Messrs. Sander of St. Albans, is about 3 feet high, freely branched from base to summit, and covered with rosy carmine flowers. These latter in size remind one of *N. affinis*, while the plant before us opens its flowers in the daytime. We remember the plant as shown last year at the Temple, when in the distance it gave the impression of a mass of richly coloured *Calanthe*, and, indeed, it is of just such a shade that is now seen in this excellent garden plant. The plant is also said to be equal to *N. affinis* in hardiness, so that we have here a plant of no ordinary merit. Messrs. Sander set up a group of some eighteen plants wonderfully alike in size, in the freedom of branching, and in other ways. We have nothing but the highest possible praise for this remarkable plant. First-class certificate.

*Lomaria Muri*.—Good novelties in Tree Ferns are not abundant, but we have here a plant full of promise. It is said to have appeared in a batch of *L. ciliata*, and is by no means a solitary example. The fronds are some 2½ feet in length, 6 inches broad, and very firm in texture. The exhibited plant displayed its early inclination to form a stem, and doubtless we shall see this excellent plant again. From Mr. H. E. May, Edmooton. First-class certificate.

*Onosma alba*.—This is a beautiful new alpine. The woolly or silken leaves somewhat spatulate in outline, the habit spreading and compact. The plant must not be confounded with *O. albo-roseum*. The flowers are tubular and droop at first, but expand later to bowl shape, with slightly contracted mouth. A choice and rare plant. From Mr. M. Prichard, Christchurch, Hants. First-class certificate.

*Chirya miniata aurea*.—A new shade in these plants which may provide an improved race in the near future. It is of a soft yellow, with deeper shade at the base of the segments. Shown by Mrs. Powys Rogers, Perranwell, Cornwall. Award of merit.

*Tritonia Prince of Orange*.—We have here a plant that may briefly be described as a glorified *T. croatica*. The large blossoms are of a clear orange shade that should prove most serviceable in decoration. The plant is a most profuse bloomer. From Miss Willmott, Great Warley. Award of merit.

*Saxifraga Rhei superba*.—This is, perhaps, the best and most profuse flowering plant of the coloured mossy kinds. Blossoms three-quarters of an inch across, flat when fully open. Plant 9 inches high when established in good ground, or taller if in moist soil. It is excellent in every way, and far more abundant and profuse in flowering than is *S. Rhei*. Shown by Messrs. T. S. Ware, Limited.

Feltham, and by Mr. G. Reuthe, Keston, Kent. Award of merit.

*Carnation Leander*.—This is a salmon-pink self Carnation with much of the form of *Hermione*, but less bright and good. The flowers are of large size, with good calyx, and are very fragrant. From Messrs. Felton and Sons, Hanover Square, W. Award of merit.

*Auricula Vesta*.—A very fine grey-edged variety of excellent form and size and well-defined centre, and green leafage. Habit vigorous and good.

*A. Triumph*.—A splendid variety with heavy green edge and well-defined white paste. Truss and pip large, habit vigorous. A green-leaved sort.

*A. Golden Crown*.—This is an alpine variety of good size, and excellent shape and form generally. The predominant marginal colour is reddish chestnut, the prominent centre of a rich yellow. Habit vigorous, stem stout, with capital truss.

The above each received the award of merit, and all were exhibited by that well-known florist, Mr. James Douglas of Bookham.

#### NARCISSUS COMMITTEE AWARDS.

*Narcissus Count Visconti*.—A Queen of Spain type of flower very much enlarged. The colour is a good yellow shade, the long, handsome trumpet nearly cylindrical in outline. Obviously a bold and vigorous kind. First-class certificate.

*N. White Ensign*.—This is probably a Leedsii, very pure in the perianth, the lemon-yellow cup widely expanded. Award of merit.

*N. Flag of Truce*.—Almost a pure white Queen of Spain, but with larger parts and other variations. It is a beautiful sort. Award of merit.

The above set were all exhibited by Miss Willmott, Great Warley, Essex.

*Tulip Inglecombe Pink*.—"Pink" may be an approach to the beauty of colouring as seen in this handsome flower, but it fails to do it justice. Mottled with the pink there is salmon or salmon rose delicately blended, and with the edges lightly bordered and finely pencilled with yellow there is rare colour beauty with good form. All this is seen externally. Internally a warmer tone prevails, with a base of sea-green. A really fine Tulip of the Darwin or May flowering set. From Messrs. W. T. Ware and Co., Limited, Bath. Award of merit.

*T. De Wet*.—A fine bedding Tulip, flamed orange and yellow. Award of merit.

*T. Sir T. Lipton*.—A crimson-scarlet sort of large size and good form. Award of merit.

These were from Messrs. James Veitch and Sons, Limited, Chelsea.

*T. Moucheron*.—A very fine early Tulip of crimson hue. Exhibited by Messrs. R. H. Bath, Limited, Wisbech. Award of merit.

#### FRUIT AND VEGETABLE COMMITTEE.

Messrs. Sutton and Sons were given a cultural commendation for two baskets of Sutton's Early Giant Pea.

Sutton's May Queen Potato was shown by S. Heilbut, Esq., The Lodge, Holyport, Maidenhead (gardener, Mr. T. Chamberlain).

Hobday's Giant Rhubarb was well shown by Mr. J. Hobday, Havering Road, Romford.

Messrs. Henry Canoe and Sons, Swanley, obtained a cultural commendation for Eynsford Early Cabbage.

#### NORFOLK AND NORWICH.

THE annual spring exhibition of flowers, fruits, and vegetables of this society was held in the St. Andrews Hall, Norwich, on the 21st ult. The chief exhibit was cut *Narcissi*, arranged in banks on a table running the whole length of the centre of the hall. The chief class here was for thirty-six varieties, three blooms of each, and three very good collections were staged. Mr. George Davison, gardener to Major Petre, Westwick House, Norwich, secured the premier position with flowers of perfect form and colour, and the arrangement, too, was charming. All the leading varieties were represented. There were also classes for twenty-four, twelve, and six varieties, to suit various growers, and these were well contested, Lord Justice Cozens-Hardy being a prominent winner. His lordship's gardener, Mr. Woodhouse, also staged a collection of over 100 varieties, not for competition. For *Anemones*, Mr. W. Allan, gardener at Gunton Hall, was first for grand blooms. Tulips were weak numerically, but of good form and colour. There were nice collections also of cut greenhouse flowers, Mr. W. Chettleburgh, gardener to Colonel Rous, Weststead House, taking first position. Lily of the Valley and Violets, six bunches of each, made a good class, and in both these Mr. Allan secured first prize with fine blooms. In the hardy flowers and flowering shrubs all classes were well filled, and an effective group they made. Here, again, Mr. G. Davison was first in both classes with his bold bunches of choice things from the hardy borders. Pot plants included such a wide range as *Amaryllis*, *Auriculas*, *Azaleas*, *Caladiums*, *Calceolarias*, *Cinerarias*, *Cyclamens*, *Coleus*, *Mignonette*, *Orchids*, *Pelargoniums*, *Roses*, and foliage plants.

Strawberries were the chief representatives of the fruit section, and some fine berries, both off and on the plants, were exhibited. Vegetables were fairly represented, Beans, Broccoli, Mushrooms, and Cucumbers being in good condition. There were one or two nicely arranged baskets of salad.

To supplement the competitive exhibits there was also a charming collection of over eighty varieties of *Narcissi*, set up by Messrs. Daniels Brothers, Limited, Norwich, in their best style. This was much admired by the visitors.

At Messrs. Hobbies' Limited, stand there was a pretty group of Dorothy Perkins, Blush Rambler, and other climbing Roses, which were tastefully intermixed with Tea Roses and Clematis in variety.

Messrs. Barr, Covent Garden, set up a good collection of the newest and rarest Daffodils, including Peter Barr, for which they were prepared to book orders at fifty guineas per bulb. The day kept fine, and a good attendance resulted.

## BRISTOL GARDENERS' ASSOCIATION.

## PRESENTATION TO THE HON. SECRETARY.

The annual meeting of this society was made additionally interesting by reason of the fact that advantage was taken of the occasion to make a small presentation to the assistant hon. secretary (Mr. H. Kitley). This took the form of an aneroid barometer, suitably inscribed, and a "Swan" fountain pen. Mr. Poole, the retiring chairman, in making the presentation, spoke of the untiring energy of Mr. Kitley, who, during his term of office, had in every possible way sought to increase the usefulness of the society. The members appreciated the unstinting service he continually rendered, and asked him to accept the gifts as a small token of their regard and gratitude.

Mr. Kitley received a warm welcome on rising to respond. He confessed himself unable to adequately express what he felt, but sincerely thanked them for the beautiful gifts and the kindly feeling which had prompted them. The work he had done had always been a pleasure, because he felt that the society was filling a place amongst the gardeners of the district in a way that could not be done by other methods. He hoped to have a long connexion with it, feeling sure that with the continued co-operation of the members even more success could be accomplished in the future than in the past, and, speaking for himself, he was always anxious to do what he could to make that success sure.

## BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

The usual monthly meeting of the above association was held on Tuesday, the 19th ult., Mr. James Slater, president of the association, occupying the chair. The lecture of the evening was given by Mr. W. Kennedy, Ardarauch Gardens, his subject being "Insect Pests." Mr. Kennedy gave a most interesting and valuable lecture on the subject, and a good discussion ensued as to the best means of dealing with the various pests which are so troublesome and destructive in gardens. Some good exhibits were on view, noteworthy being those from Feruhall Gardens.

## NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THERE was a large attendance at the monthly meeting of this association on Tuesday, the 12th ult. Mr. A. Hemsley lectured on "Plant Propagation." The chair was taken by the president, Mr. T. W. Sanders, F.L.S., and after the election of judges (Messrs. D. B. Crane, Boulton, and E. F. Wicks) and other preliminary business had been got through, Mr. Hemsley said there were many ways of propagating plants, and first there was the method from seed. Seed should be kept cool, and that of Primulas and kindred plants placed in a moist rather than a dry position. Care should be taken not to overcover it when sowing. Soil with a disposition to cake should be avoided, chopped sphagnum moss and sand being recommended as a remedy for such soil. Seeds that remain long before germinating should be soaked before sowing, taking care not to make this too prolonged for fear of fermentation. Some seeds lost their vitality if they once got dry.

The lecturer then went on to discuss the propagation of plants by cuttings. A frame over hot-water pipes was recommended. Cuttings from slips with a heel attached were not recommended. In a few instances, however, the lecturer said it was necessary. Stem cuttings from such plants as Fuchsias and Bouvardias were best, although some plants require the stem to be cut at a joint, of which the Carnation was a good illustration, and they were difficult to strike. Cuttings should have a greater bottom than top heat, as the latter drew the sap upwards and so prevented root action. Short cuttings were preferred to long, for if planted too deep the base often rotted. Illustrations were given of subjects where long cuttings were absolutely fatal. Between their separation from the plant and insertion, the cuttings should be kept fresh, and it was better not to make them until everything was ready. Succulents, such as Kalosanthes, were an exception to the latter rule. Mr. Hemsley summed up successful propagation in the following remark: "Attention, and this not upon six days of the week only, but upon the whole seven." Still another method, and that by root cuttings, was considered. Any plant that throws up suckers from roots can be increased by root cuttings. Clematis in many instances were increased in this way by grafting them upon seedlings of the wild Clematis. By leaf cuttings was another method, and was seen in such plants as the Gloxinia and Begonia. Stem grafting was clearly defied also, and examples of this once-popular practice given in detail.

The lecture was concluded by Mr. Hemsley saying that peat, loam, and sand in equal parts were the three ingredients he used, with a top-dressing of sand. Fungus was not encouraged by their use. Leaf-mould should be avoided as promoting fungoid growth. The chairman supplemented very fully Mr. Hemsley's remarks, and subsequently a hearty vote of thanks was accorded to the latter.

The exhibition was one of the very best spring displays ever brought together under the auspices of the association. Narcissi came from Messrs. C. Coates, H. A. Woodbridge, W. D. Barnes, D. B. Crane, and G. M. Gross; cut flowers in charming variety by Messrs. G. Hobday, W. D. Barnes, and C. Coates; Cinerarias by Mr. S. H. Levi, Weybridge; Orchids by Mr. R. D. Forbes, Tottenham; Tulips by Mr. W. Bentley, and cut flowers by Mr. F. M. Vokes, Southampton. The dinner-table decorations by the ladies were very pretty, Miss Welch, Mrs. Levi, and Miss Gross being placed in the order of their names, and for a large vase of cut Narcissus Miss Sanders was first with beautifully arranged flowers, and Miss Welch was second. It is impossible to mention more than just a title of the exhibits.

## SPRING FLOWER SHOW AT COLCHESTER.

DAFFODILS were seen in fine and varied character at an exhibition of spring flowers at the Corn Exchange, Colchester, on the 21st ult. The Exchange is commodious and well lighted, and being in the heart of the town is reached without difficulty. There were many spring flowers besides

Daffodils, there were groups of plants and beautiful Roses, which was natural, seeing the show was in the very heart of Rose land. Plants in pots were represented by groups filling a space of 100 feet, the first prize going to a very fine one from Miss Willmott, Warley Place, admirably arranged by her gardener, Mr. Preece, in which handsomely grown stellate Cineraria played a prominent part; Mr. H. G. Egerton Green, King's Ford was second, and a third prize was also awarded. In the class for twelve Roses in pots Messrs. B. R. Cant and Sons, Colchester, had a considerable variety, including their Blush Rambler, the brilliant Persian yellow, various H.P.'s, &c.; Mr. H. P. Egerton Green being again second, but with plants only partially bloomed. Azaleas were represented by the mollis type; there were Spireas, Lily of the Valley, Tulips, Hyacinths, Polyanthuses, and Primroses. Baskets of Primroses and Polyanthus, which should have included plants, were in error decorated with cut blooms.

The best collection of cut Narcissi in not less than fifteen distinct varieties, to fill a definite space of tabling, came from Miss Willmott, who had in fine character Great Warley, Golden Spur, Grandee, Victoria, Glory of Leiden, Empress, Queen of Spain, Princess May, Minnie Hume, Sirius, Lulworth, Viscouctess Falmouth, Moonray, Lillia, &c., quite a representative collection. Mr. James Douglas, Great Bookham, who confined himself to fifteen bunches only, had in fine character Glory of Leiden, Mme. Plomp, Shakespeare, Victoria, Weardale Perfection, Golden Ball, Duchess of Westminster, Sea Gull, &c.; Mr. F. Chapman was third. As Miss Willmott was the donor of a silver cup as the first prize in this class, she very generously passed it on to Mr. Douglas. With a collection of Narcissi filling a space of 12 feet, Mrs. Berkeley, Great Warley, came first. Her leading blooms, which were very good, included Noble, Glory of Leiden, Lady Mary Boscawen, Coronet, Ariadne, Astradente, Diana, Will Scarlet, Dorothy Yorke, &c.; Mr. A. Pretty, Ipswich, was second. With six bunches shown by amateurs, Mr. W. Marriage, Dilhridge Hall, was first. He had in fine character Emperor, Empress, Horsfield, Sir Watkin, &c.; Mrs. Berkeley was second. With three bunches of Magni-Coronati, Mrs. Berkeley came first with King Alfred, Schon, a very fine bicolor, and Mme. de Graaff; Captain W. O. Grantley, Lexden, was second. Mrs. Berkeley was also first with six Medio-Coronati, having C. Wolley-Dod, Diana, and Gloria Mundi; Mr. W. Marriage was second. Equally successful was Mrs. Berkeley with three Parvi-Coronati, having Iocognita, Cresset, and Oriflamme; Mr. H. J. E. Green was second.

There were classes for collections of Tulips, also of bunches of Anemones, but they did not fill. Primroses and Polyanthus were also shown in bunches.

One highly attractive class was for twenty-four blooms of cut Roses, in not less than twelve varieties, Messrs. Frank Cant and Co., Colchester, taking the first prize with very fine blooms, Mildred Grant, Suzanne Rodocanachi, Caroline Testout, Papa Lambert, Mme. Crober, Ards Pillar, Lady Mary Curry, Mme. Berkeley, Marschal Niel, &c. Messrs. B. R. Cant and Sons, Colchester, were second; they had some very fine blooms also, including Caroline Testout, B. R. Cant, Fisher Holmes, Mrs. J. Laing, Dr. Audrey, Marquis Litta, &c.

Table decorations were numerous; they included tables 3 feet by 3 feet, the best coming from Mrs. Arthur Cant, it was neatly arranged with white Tulips and Gypsophila. Mrs. O. G. Orpen, Colchester, was second, a mixture of Arum Lilies, pale Narcissi, and Violets being employed. Miss Groves took the first prize for an epergne, and also for a bowl of flowers, using bicolor Narcissus. Miss Chapman was awarded the first prize for a vase of flowers. Bouquets, sprays, and buttonholes were also shown.

Miscellaneous exhibits introduced some very fine features. At one end of the hall Messrs. B. R. Cant and Sons staged a very fine bank of plants of Roses, including their Blush Rambler in fine colour, various Hybrid Perpetuals, Teas, &c. At the other end Mr. E. C. Notcutt, Ipswich, had a group of plants, which included standard Lilacs, Guelder Roses, &c. Messrs. R. Wallace and Co., Colchester, had an imposing bank of Daffodils in great variety, also a most interesting collection of hardy plants. Messrs. R. H. Bath, Limited, Wisbech, had Daffodils in variety and Tulips. Messrs. J. Gilbert and Son, Bourne, had quite a representative collection of Anemones, including their double Scarlet. Mr. E. A. Abbott had a collection of Daffodils and Tulips. Messrs. Barr and Son, Covent Garden, a fine collection of Daffodils. Messrs. Reamsbottom and Co., Geashill, King's County, had a splendid collection of their Alderborough strain of Anemones in very fine character, and Miss Curry also brought from Lismore, Ireland, a representative collection of Narcissi she grows so successfully.

**Dusseldorf International Exhibition.**—The first of a series of horticultural shows to be held in connexion with the above, opened on the 1st inst. Orchids proved a great attraction, and were arranged in an imposing structure specially erected to receive them. Among the exhibitors were Messrs. Hugh Low and Co, Enfield, who had a general collection of Orchids now in flower, as well as a number of plants destined to show the best Orchids to grow so as to have some in flower all the year round; they were given the first prize in this class. Messrs. Charlesworth, Bradford, also exhibited Orchids. Others who had displays of these flowers were Messrs. Vincke du Jardin, Ghent; C. F. Karthaus, Potsdam; Max Von Furstenberg, Schloss Hugenport, Dusseldorf (a collection of botanical Orchids); Theodore Francke, Ottersleben, Magdeburg; Ch. Maron, Brunoy (a fine lot of hybrids); Vuylsteke, Ghent

(whose group contained *Odontoglossum ardentissimum* Imperatrice, Augusta Victoria, O. a. regale, O. a. incundum, O. exornatum); George Magne, Boulogne-sur-Mer; Charles Beranek, Paris; Duval, Paris (Anthurium), Otto Beyrodt (a large display of *Odontoglossums*), and Mme. Louise de Hempein, Ghent (the most noticeable plant being a large specimen of *Cyrtopodium punctatum*).

**Potato A1 (Jefferies).**—While there is a great deal said about certain new Potatoes, there are also some varieties which are little known outside the district where they originated. I fear this is the case in the present instance. This variety has been sent out, for the first time, I believe, this season by Messrs. J. Jefferies and Son of Cirencester. I had the privilege of seeing a portion of the crop lifted last autumn; it was a very heavy one indeed. I do not remember seeing one diseased tuber on the whole quarter. It was one of the very best Potatoes I tasted last season. It has been very largely planted in this district.—T. A.

**Saxifraga Ferdinandi-Coburgi.**—This charming little plant was one of the several interesting discoveries made in Macedonia by a botanical expedition from Sofia, in Bulgaria, in the year 1897. It was collected at an elevation of 4,500 feet above sea-level, growing on rocks of limestone formation, in company with another rare species belonging to this varied and extensive genus *S. luteo-iridis*. Proving to be a new species it was given its rather cumbersome name in honour of Prince Ferdinand of Bulgaria. Plants were obtained from F. Sundermann of Lindau, in Bavaria, in 1902, but they did not flower till this year, after making tufts about 3 inches in diameter. It may be compared to *S. arctioides* in size and habit, and is certainly in close affinity with that species, but the dwarf glaucous tufts are not quite so densely packed and are of rather freer growth. The rich yellow flowers are also larger than those of *arctioides*, and as many as five or six are produced on each leafy pubescent stem, which is about 2 inches high and tinted with a red-brown colouring. Although the yellow-flowered *Saxifragas* are fairly well represented in our gardens, the above species is quite distinct from them all, and will undoubtedly prove a welcome addition to the number of charming little plants which brighten the rock garden in the early spring.—W. IRVING.

**Narcissi, Tulips, and spring flowers at Surbiton.**—The nurseries of Messrs. Barr and Sons can be visited at all seasons of the year with interest, but perhaps it is in Daffodil and Tulip time that the broad wind-swept acres seem to appeal to the flower lover most strongly. Then the superb collection of Narcissi are in beauty, to be followed a few days later by the Gesner's, cottage, and self Tulips. When the waving groups of Daffodils and Narcissi are in their freshest beauty there seems a sea of yellow, lemon, and pure white, but now, at the moment of the opening of the Tulips, this is changed to colours that have caught the very rays of the sun—scarlet, crimson, fawn, and bronzy shades that give to the month of May its greatest splendour. Many of the newer Narcissi were at their best when we went to this nursery. N. Leedsi Sylvia, a pure white with yellow cup; Rosalind, white also, the scarlet rim to the cup in rich contrast; Gaiety, yellow, cup orange scarlet; Salmonetta, white, with a cup of deepest orange; the glorious yellow of King Alfred, a tall, strong, and free-blooming Narcissus; and Peter Barr, one of the finest Daffodils ever raised. We counted six flowers to a bulb, and these of tender colouring, the segments white and the trumpet of softest primrose. Of the spring flowers besides the Narcissi and Tulips, of which we hope to write further, there was a delightful collection of Fritillarias in full beauty, Dodecatheons, Muscari Heavenly Blue grouped with Queen of Spain Daffodils, a delightful contrast, and Primulas. Those who are interested in the species and varieties of Tulips in particular will be well rewarded by a visit to this nursery next week.

**Strawberry blossom and spring frosts.**—The early Strawberry crop last year failed so badly and the damage was so sudden that anyone who has early varieties on a warm

border will do well to protect them at this season. In some cases it means considerable labour to do this, but it is well repaid, as it must be evident to everyone that the earliest Strawberries for sale are the most valuable, and the first fruits are the best. I do not mean a stray fruit here and there, but the first few gatherings. The flower-stalk is very tender, and a few degrees of frost soon injure it, and frequently the centre of the fruit or portion most exposed is blackened and rendered useless. Last year we had 14° of frost, which quite crippled the early crop, and it was so unexpected that a lot of late pot plants plunged in ashes were ruined, whereas a little shelter in the way of tiffany or even long litter would have saved them. It is not difficult to cover early plants—usually occupying narrow borders—and we adopt a simple plan, one that takes up little time. Short posts, about 18 inches high, are placed at intervals, and over this we strain galvanised wire. The covering is put on each night and taken off in the morning. Any sheeting that is at hand is used, but our best cover is No. 5 shading. This is a closely-woven woollen shading and a splendid protector. It may be had wide enough to hang down at the sides, and is readily placed in position. The shading is not removed till the fruit is gathered, so that it answers a double purpose. It is most useful to support the nets that are put up as a protection from birds, so that the nets do not rest on the plants, and very little time is necessary to cover. I have when short of shading used cotton sheeting, also a double thickness of square half-inch mesh netting. It makes an efficient protector, and may be used singly later on for other purposes. It is surprising how slight a protector is needful to keep off frost, and this when used just as the flowers emerge from the crown of the plant will safeguard the early crop. Such varieties as Royal Sovereign show their flower trusses very early, and are not so well protected by the foliage as varieties of the class of Vicomtesse Héricart de Thury. I noticed on the 28th ult. that a few of the earliest trusses of Royal Sovereign were very forward, so that protection will soon be necessary.—G. WYTHES.

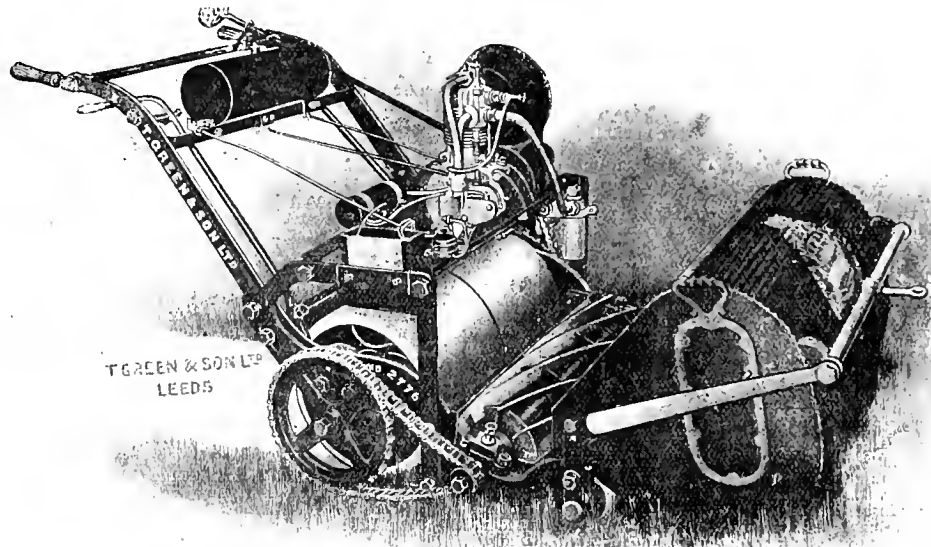
## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—J. B. W.—The Arum Lily sent is *Richardia Nelsoni*, a comparatively new and uncommon one which has been imported from South Africa. That exhibited last year at the Temple show, and given an award of merit as *Richardia hybrida Solfataræ*, is much the same, if not identical.—G. C. Lees *Milnes*.—The wild Tulip (*Tulipa sylvestris*).—F.—The large-leaved *Rhododendron* is *R. Countess of Haddington*; the small-leaved, *R. formosum* × *R. Dalhousie*, raised by the late Mr. Anderson-Henry.—C. Grubb.—The *Rhododendron* is *R. venustum*; the white flower, *Trichopilia albidæ*; the yellow, *Dendrobium ochreatum* (a poor form); and the red, *Anthurium andreanum* × *A. Lindenii*.—Mrs. Alderson.—The pink flower is *Prunus petersia* pl.-fl., the yellow one *Uvularia grandiflora*.

**Growing Mignonette** (A. C. FORTH).—After many years' experience with Mignonette planted out, we have found that on stiff soil it was always the best for producing a fine mass of growth and flower. Seeds may be sown in a frame near the glass or in shallow boxes under glass; then every seed grows. Outdoors no such result may be looked for, as Mignonette seed often takes long to germinate, and any that is imperfectly ripened fails to grow. If so soon as the young plants are 4 inches high, and have been well



GREEN'S PETROL MOTOR MOWER.

exposed to the air, they are carefully lifted and dibbled out into the open ground, 12 inches apart each way, they will perhaps have a rough look for a week or two, then will start into growth and develop into wonderfully fine ones. If planted out to form carpets at the end of May, a sowing made about the middle of April will doubtless answer very well. If the weather is dry an occasional watering may be needful, but a little moisture suffices to keep the plants alive. When seed is sown on dry soils outdoors the process of germination is often very irregular and not infrequently fails, much, of course, depending on local conditions. The white, red, and yellow varieties differ in habit as well as in colour, and should not be intermixed.

**Tennis lawn weeds** (H. H.).—The feathery-leaved weed on your lawn is the common Milfoil or Yarrow, and botanically is *Achillea millefolium*. It has a stoloniferous habit, sending out root-like shoots just beneath the soil, and from these new leaves come up. In that way it spreads rapidly, yet its main roots go deep, hence in hot dry weather, when shallow-rooting grass is burnt up, the Milfoil remains green and vigorous. If you cannot cut out the patches of these weeds, thus removing them altogether, replacing them with good grass turf, then use a sharp-toothed iron rake hard backward and forward over the patches and thus root out a great quantity of them. Then spread a little fine soil over the patches and sow at once a pinch of grass seed on each one, well rolling it in. The other weed is apparently one of the Sorrels, and should be treated in the same way. A good many of these weed patches may be pulled out by hand, still the frequent use of an iron rake will keep them in check.

**Making ha-ha** (H. P.).—If the intention is to have a sunk wall as a protection from cattle, 3 feet 6 inches is not sufficiently high. The wall should be not less than 4 feet 6 inches. The ditch on the wall side should be 9 feet wide, sloping from the bottom of the wall to the natural level of the ground. As to the cost, we cannot advise without knowing the cost of rough stonework per cubic yard in the locality. The cost of excavating the soil and placing it within 20 yards of the site of the wall would be from 9d. to 1s. per cubic yard, according to the nature of the soil. A ha-ha can be made without a wall by fixing an iron fence against the bank.

**Slugs on Strawberries** (BELBROUGHTON).—We do not think that your idea would be practicable; indeed, it may do more harm than good. Much depends upon the closeness of the plants; if nearly touching each other you could not use salt with safety. In wet weather the salt would quickly lose its power on the surface of the soil, and get absorbed by the roots. This the Strawberry could not stand, and your material and labour would be lost. You ask what remedy could be safely adopted. In our case we would advise more frequent beds; that is, not to allow the plants to remain too long on the soil. Where beds are only kept one or two years there is no trouble with slugs, for the reason that the land is better cultivated and it is easy to dress the soil, and by so doing there is no fear of slugs for some time. We are aware this is not practicable in all cases; still, if possible, it is worth a trial. In our case we dress the land in the early autumn for spring planting, and in the early spring for summer planting, using fine gas-lime, and allowing this to pulverise by exposure for a short time before digging in. Ordinary lime would do, and with many slugs deep digging would soon arrest their progress. In soil badly infested we have found lime and charred garden rubbish an excellent preventive. You will say our advice more concerns the future than the present, and that is so, but in your query you do not help us much as regards the age of your plants. If old, the slugs are far more difficult to get

at; they have such secure nesting places in the crowns of the plants. Are your plants close together? If so, it is more difficult to dress between. Soot is very distasteful to this pest, but it is not pleasant when the ripe fruits touch the soil later on. Fresh lime you could use, but not in any quantity. We have used lime and soot mixed, but this is soon lost in wet seasons. Sawdust mixed with lime is not relished by the slugs, but it is not good when used in quantity. It should be absorbed before the fruit is ripe. We think the best remedy would be to use a liquid watering round the plants, and here you would soon get rid of any unpleasant effects. We have used a solution of tobacco water, mixed with rain water. There is also a special powder that has recently been put on the market, called Bentley's Powder Insecticide. This when dusted round the plants will get rid of the slugs; it is manufactured by Bentley, Barrow-on-Humber, Hull. The old-fashioned remedy of soap-suds is a good one. We have used this, adding a wineglassful of petroleum to two gallons of the suds. This latter may be used with rain water in the same proportion, but, as the petroleum floats on the surface, it must be well stirred; indeed, it is far better to mix it with soft soap and make it a solution. Of course, any of the above must not be used on the foliage.

### TRADE NOTE.

#### GREEN'S PETROL MOTOR MOWER.

MOTOR LAWN MOWERS have lately come into greater prominence, and they bid fair to take the place of the pony lawn mower in time where lawns of large extent have to be mown. The petrol motor mower shown in the accompanying illustration has been specially designed by Messrs. Green and Son, Limited, to take the place of a pony machine. It can be made in different sizes: the one reproduced is the 24 inch size, and has a 2½ h.p. motor. It is easy to start, and all parts are so arranged as to be easily adjusted. The man, who steers in the usual way when walking behind, has the machine under perfect control. The motor and parts are very simple, and the whole mechanism forms a very compact machine; in fact, any intelligent youth can soon be taught to work it. The mower will do a great amount of work in a very short time, as it travels as fast as a man can walk; it also possesses an absolute advantage over the horse machine, inasmuch as it leaves no trace of the horse's hoofs on the lawn after it has done its work, which is a consideration. Another new lawn mower is Green's "New Royal," specially suited for golf links. This is a portable side-wheel machine, easy to adjust, the gearing thoroughly protected, with large side driving wheels, and is fitted with six steel crucible blades. It is specially adapted for cutting long grass, and is strongly recommended to anyone requiring a first-class light-running machine. Messrs. Green say they are fully convinced it will surpass any yet introduced of this type, but it will not, of course, take the place of their well-known roller machine, the "Silens Messor." It may be used either with or without grass box.

### GARDENING APPOINTMENT.

MR. R. MARTIN, for the past two years general foreman at Castle Boro Gardens, Ennisceorthy, has been appointed head gardener to E. Tighe, Esq., Woodstock Park, Inistioge, County Kilkenny.

\* \* \* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.



# THE GARDEN

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[MAY 14, 1904.]

## THE NATIONAL TULIP SOCIETY.

ON Tuesday next in the Drill Hall, James Street, the National Tulip Society holds its annual exhibition. It is always an interesting event, and one that has a flavour of past generations, when the keen florists of those days saw in the markings of a flower its greatest perfection. We have no desire to see that earnest flower-love grow faint. There was something to admire in the devoted florists of the past, in spite of obvious shortcomings, but there is no reason why the complexion of the exhibition should not be altered to meet present-day desires. While maintaining the same keen interest in the essentially florist Tulip, distinguished by beautiful feathering and striping of colours, there should be more thought for the species, varieties, and hybrids. The Gesners and late Tulips are approaching their richest beauty, and what this means those who plant the bulbs in groups know full well. No race of bulbous flowers has the dashing colour of the Tulips, whether it comes from the big scarlet chalice of *T. Greigi*, *T. kaufmanniana*, or *T. gesneriana* itself, most famous of early summer flowers, and the parent of many of the forms that now bring beauty to the home garden.

There can be no question that the popularity of the May Tulip is largely due to the authorities at Kew, who, before the value of this wonderful race was recognised, planted in the beds on each side of the long walk and in front of the Palm house, and elsewhere in the gardens, *T. gesneriana*, *elegans*, *retroflexa*, *macrospeila*, and the finer selfs which meet the flowers of spring and of summer and open their chalice to the May sun. A massing of 200 or 300 bulbs of *Tulipa gesneriana* is welcome and satisfying; it is the richest floral feast of the year, and puts to shade a grouping even of the Henri Jacoby Geranium. What is tenderer than the soft yellow of *T. retroflexa*, a flower of curling and twisting segments, or more graceful than the curves of *T. elegans*? Whether in the larger gardens, each colour in a bed, or massed in a free way in the wilder grounds, these noble flowers show their garden value.

We have planted *gesneriana major*, in particular, in groups in open shrubbery walks where the sun can reach them and against thin bushes to show the flower

colouring against a background of tender green. A mass of 300 bulbs planted in this way is at the present moment as brilliant as the grouping of Torch Lily near the same place in August and September. Let us remind the owners of country places who are unacquainted with the self May Tulips that a day may be pleasantly spent notebook in hand at Kew or in one of the great nurseries, such as Barr of Long Ditton, among the Tulips. The flowers are beautiful even in the dull light of the Drill Hall, but it is in the full sun that their wonderful colouring is disclosed, chalice of crimson and yellow, and white and rose, with intense inky bases within.

The Tulip Society is accomplishing much, but it is capable of even greater endeavours. There are the species, some of great garden importance, others that appeal to the botanist, and the glorious late race, the Darwins, and the Gesner Tulips that have given them birth. It is this group that the Tulip Society may well strive to bring into greater prominence, and in doing so still maintain the old love for the "rectified" flowers that appeal to us in the same way as an edged Auricula or a bizarre Carnation.

## PREPARING FOR SUMMER.

(Continued from page 315.)

### MASSING AND GROUPING PLANTS.

SOME of the beds in our London parks are clever associations of colouring and bold arrangements for effect, and in many instances reflect the greatest credit on the judgment and taste of those responsible for the work.

These luxurious beds are costly to produce in the first instance, and costly also in so far that duplicate plants have to be grown and kept in reserve during the summer to make up deficiencies caused by decaying plants and failures, which are sure to take place from time to time. Few private gardeners, therefore, have the opportunity of distinguishing themselves in this aspect of the art of garden ornamentation. Many plants are used in combination for this purpose, which a few years ago were supposed to succeed only under the shelter of our greenhouses. Such are the *Acalyphas*, especially *macafeana*, which is perhaps the most handsome; *Dracanas* in variety, the hardiest Palms, *Nerines*, *Lilies*, *Ricinus*, *Bamboos*, *Diosmas*, *Eriostemons*, *Hydrangea paniculata*, *Campanula pyramidalis*, *Humea elegans*, *Yuccas*, *Funkias*, and *Aralias*. As an undergrowth the following, among others, are well adapted: Dwarf *Abutilons*, *Fuchsias*, Sweet-scented Cape *Pelargonium*, and *Petunia*.

Even *Selaginella denticulata* may be used in this way.

The charm of this sort of arrangement is the variety in size and form of the plants which may be used, and anyone starting the work for the first time cannot do better than bear in mind one of the groups arranged for effect at a good flower show. Of course, a less number of kinds and varieties of plants will have to be used, but this will not interfere with the effect. An arrangement of this sort is of much interest at a time of the year when the weather is too warm to enjoy plants in hot-houses. A sheltered terrace or a warm corner near the house is a suitable position for such a display. The soil in the beds must be of good quality and moderate depth, and fairly enriched with decayed cow or horse manure before planting. The plants used must be strong, sturdy specimens of their sort at the time of planting. It is absolutely useless for this sort of decorative gardening to use stunted, weak, or poorly-developed plants, as there is no time for them to recoup before the summer is over.

O. THOMAS.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

May 17.—Royal Horticultural Society's Drill Hall Meeting; the Royal Gardeners' Orphan Fund Dinner, Hotel Cecil, 7 p.m., Sir Trevor Lawrence, Bart., in the chair.

May 19.—Bath and West of England Horticultural Show at Swansea (five days).

May 25.—Edinburgh Spring Show (two days).

May 30.—Kew Guild Dinner.

May 31.—Royal Horticultural Society's Temple Show (three days).

**Horticultural Club.**—The house dinner and lecture announced for the 17th inst. has been unavoidably postponed, as the annual festival of the Royal Gardeners' Orphan Fund occurs on that evening.

**The New Horticultural Hall.** Among the most recent donations to the Building Fund of the New Hall is one from Messrs. Smith and Ebbs, Limited, of Northumberland Alley, Fenchurch Street, stationers to the society, for £25.

**Temple flower show, May 31, June 1 and 2.**—For the seventeenth year in succession the Royal Horticultural Society will hold their great annual flower show in the Inner Temple Gardens (by the kind permission of the Treasurer and Benchers) on May 31, June 1 and 2. Every year the desire of growers to exhibit increases, and the officials of the society have a very anxious task in endeavouring to do justice to those who regularly support the fortnightly shows of the society, and yet at the same time to encourage others to come forward. The space is absolutely limited by order of the Temple authorities; no more or larger tents can be erected, hence every new exhibit which is accepted means curtailment of the space allotted to previous supporters. The society will issue an official catalogue containing

centennial notes on the Royal Horticultural Society, particulars of the meetings and exhibitions, both at the Drill Hall, Buckingham Gate, and at Holland House, Kensington, and in the society's New Hall, Vincent Square, also a schedule of the exhibits, with the names and addresses of all the Temple exhibitors entered up to May 20. There will also be the programme of the music to be performed each day by Lieutenant Charles Godfrey's band. The judges will meet at the secretary's tent at 10.30 a.m. on May 31, at which hour punctually the tent will be cleared of all exhibitors and their assistants. The fruit, floral, and Orchid committees will assemble at the secretary's tent at 11 a.m. sharp, and the show will be opened at 12.30. All plants for certificate must be entered on or before Thursday, May 26. Address: Secretary, Royal Horticultural Society, 117, Victoria Street, London, S.W.

**The Rev. C. Wolley-Dod.**—We are grieved to hear of the serious illness of Mr. Wolley-Dod. All who have enjoyed his friendship, his descriptions of hardy flowers, and the help of his great classical knowledge at Eton will hope for his speedy recovery.

**Royal Botanic Society of London.** Lord Redesdale has accepted the presidency of the horticultural section of the exhibition to be held under the auspices of this society in the Gardens, Regent's Park, from June 6 to 11. At the exhibition of plants and flowers held in the Royal Botanic Gardens, Regent's Park, on Wednesday last, many groups of hardy flowers, Orchids, and shrubs were shown, making the long corridor and the large conservatory quite a beautiful sight. In the afternoon Dr. Robert Boxall gave a lecture on "Seeds Collected from the West Indies: Their Use as Ornaments, &c."

**"In Cyderland."**—A happy evening was spent on Wednesday, the 4th inst., in the Cripple-gate Institute in listening to a musical play written by Mr. R. C. Tucker and composed by Mr. E. Sherwood, son of Mr. N. N. Sherwood. It was a private performance, a meeting together of the workers in the firm of Messrs. Hurst and Son, of which Mr. Sherwood is one of the leaders, and a few personal friends. The excellent little theatre has seldom echoed with heartier laughter, or held an audience filled with kindlier feelings to those responsible for the pleasant entertainment. Mr. E. Sherwood conducted the orchestra of the Hurst Musical Society with a whole-heartedness that won well-deserved applause. It was not an occasion for severe criticism. It is sufficient that several of the songs and the overture, particularly to the second act, gave promise of great future success. We hope that the play will be repeated in aid of a gardening charity. The whole performance was thoroughly enjoyable, and this says much for so ambitious an effort.

**Gardeners' Orphan Fund Festival Dinner.**—Writing from Burford, Dorking, Sir Trevor Lawrence, Bart., says: "I have gladly consented to take the chair at the annual dinner of the Royal Gardeners' Orphan Fund on May 17, and venture to ask for support on that occasion. The year 1904 is one of special interest to all who love a garden; and in this land of gardens who does not? It is the centenary of the great garden society, the Royal Horticultural, which has done yeoman's service in popularising the art and science of gardening. But what would be the value of this art and science were it not for the ceaseless labours and unrivalled skill of our gardeners? It is upon them that the real burden and responsibility rest. Want of skill and knowledge, or even a slight relaxation of attention, vigilance, and care may frustrate at any time the best directed efforts and most generous expenditure. Can we show our appreciation of our gardeners' labours, and our recognition of a success which adds so much to our pleasures, in any better way than by succouring their orphan children? There are now ninety-eight children on this fund, each receiving 5s. a week, and many candidates waiting election. At least £1,250 will be required for the current year. May I ask all lovers of gardens to help in the good work of this fund?"

**A New Primula—Buttercup.**—The following note appears in *Gardening* (America): "Our illustration shows a new Primrose grown by W. K. Harris, of Philadelphia, in quantity for the Christmas work this season, which has been received with marked appreciation. It is undoubtedly a relative of *P. floribunda*, but its identity is not known by Mr. Harris, neither has any plantsman thus far been able to name it positively. The flowers are bright yellow, slightly fragrant, and produced in continuous succession for months; other characteristics are well shown in the picture. It was at first thought to be *P. kewensis*, a novelty offered by Veitch this season, but a comparison with a photograph of *P. kewensis* shows the latter to have a long corolla tube, whereas Mr. Harris's plant has a very short tube. Whatever it may be, it is certainly a very useful addition to the list of acceptable house plants, and as it reproduces readily from seed will undoubtedly soon become widely disseminated." The illustration shows a plant of great freedom.

**Anemone blanda var. scythica.** I think without hesitation that this fine plant may be regarded as one of the best of early spring flowers. The rich blue and white of the flowers make a strong colour contrast. All the flowers are sun lovers, so to speak, and the influence of its rays must be felt before they expand. A year or two ago a fine form hailing from Belvoir Castle Gardens was shown by Mr. Divers at the Drill Hall and labelled *A. cypriana*. In the Kew list of herbaceous plants *A. blanda* var. *cypriana* is made synonymous with *A. b. scythica*, though from a garden point of view the two plants are quite distinct. In the above plant the petals are linear, obtuse, the leaf lobes more finely and more deeply cut, the petioles 2 inches long, sub-erect. In *A. b. cypriana* the petals are oblong, obtuse, the petioles barely an inch long, horizontal, the shorter leaves more roundly terminated and less finely and deeply cut. The latter plant is quite a month later in starting to flower and very shy seeding. My experience of the two is that while *A. b. cypriana* is the best formed flower, the subject of this note is by far the best garden plant, and should be grown by all.—E. H. JENKINS, *Hampton Hill*.

**Strelitzia Reginae.**—This handsome South African plant is, when in good flower, one of the most ornamental of conservatory subjects. Its great orange and purple-blue blossoms, the tints of which are but rarely met with in flowers, standing well above the finely-shaped Canna-like leaves, have a particularly striking and attractive effect, and a few large pots of this *Strelitzia*, each with half-a-dozen or more expanded blooms, form a telling group in a conservatory in the early spring. In shape the flowers bear a certain resemblance to the head of a beautiful bird, and the plant has been called the Bird of Paradise flower, from a fancied likeness of its blossom to the head of that bird. In well-grown plants the flower-stems attain a height of 4 feet, slightly overtopping the leaves. It succeeds well in a compost of fibrous loam, leaf-mould, and a little manure, and requires a liberal supply of water during the summer. I have seen this plant as well as *Clivia miniata* permanently planted out in a sheltered garden in the south-west, but neither appeared in robust health, though *Agapanthus umbellatus*, from the same habitat, is perfectly happy in the open in the same district. The variety *citrina*, in which the orange in the flower is replaced by yellow, is not such a strong grower and is scarcely so decorative as the type.—S. W. F.

**Over-propagating Potatoes.**—Mr. G. M. Taylor, in deprecating strongly the practice of propagating Potato stocks by forcing early growths under glass in warmth, then pulling them off and rooting them separately in pots, ultimately planting them out, as likely to lead to the production of weakness and loss of constitution, is repeating what so many other gardeners say and think. I was pleased to hear the other day from Mr. A. W. Sutton, of the famous Reading seed firm, that they were this year conducting experiments expressly to test this matter. They have a multitude of seedling Potatoes, ample room, and

special facilities for conducting such experiments, and there can be no doubt that the results will be published. I have been opposed to the artificial propagation to which Mr. Taylor refers, on the ground that because it is unnatural it must lead to evil results. Still, that judgment may be wrong, and I only hope that Messrs. Sutton's tests will be thorough and will be continued for two or three years.—A. D.

**Clematis alpina.**—This is one of the earliest Clematis to flower, being at its best during the latter half of April and May. For covering a low fence or for clothing a group of rough branches it is excellent, for it grows freely and makes a pretty informal mass. The flowers appear with the young leaves, and are at their best while the foliage is in its most delicate stage. The flowers are composed of a dozen or so small, dull white petals and four large, narrow sepals, which are a very delicate shade of blue. They are borne singly on long, thin stalks, and a large number of blossoms are produced by each plant. In addition to the type there are varieties with white and reddish purple flowers. *C. alpina* is found on limestone mountains in Southern Europe, and has been cultivated for upwards of 100 years. It is also known as *Atragene alpina*.—W. D.

**New Strawberry the Laxton Forced.**—Several notes have appeared in THE GARDEN recommending this new Strawberry for its good quality when grown in the open, but so far I have not noticed any remarks about its forcing qualities, so that a brief note as to its value when forced may not be out of place. I potted this variety later than others last season, as at first I did not think of forcing it in any way, but I must say it has done remarkably well. The newer Laxton may with advantage be grown to follow the Royal Sovereign, as it forces very quickly and the fruits are very fine. They set well with me, and I noticed that the plants produced large fruits, there being an absence of small ones. The plants make more foliage than the Royal Sovereign, and the trusses are bold and the flavour is excellent. The plants alluded to were forced slowly and not very early. I have not given it a trial for very early forcing, I mean before the end of April, but from the appearance of the plants growing by the side of Royal Sovereign it should force quite as well. The fruits are a splendid colour. Messrs. Laxton have given us an acquisition.—G. WYTHES.

**Spiraea confusa in spring.**—This is one of the best of the early-flowering Spiraeas. It is not always grown under this name, but as *S. media*. Many of our flowering shrubs are as hardy as the Holly, but few were planted years ago, and the result is a vast quantity of things not worth growing. This is, however, being partially remedied. Flowering shrubs, however, must not be neglected. Timely pruning is necessary, and it is an easy matter to get new growths from the base. Remove older ones and form a compact bush. There are beds at Syon of this *Spiraea*, which, if not too much crowded, are charming at this season, the large clusters of pure white flowers being produced in great quantities early in spring. The flowering shrubs, to do them justice, should have space to develop. Under large trees or in crowded shrubberies they are not a success, but in groups they are most effective.—G. WYTHES.

**Double Primroses.**—Having grown most of the varieties for years I can endorse all that "A. D." says as to the difficulty of keeping them healthy. Our practice was to grow them in a cold, shady position in sandy loam, and divide them in autumn just as they began to grow. The most difficult one was the double crimson. We had occasionally to get fresh plants from Ireland; but we found no difficulty in growing the double white, yellow, lilac, and purple varieties. It is most desirable to keep the leafage clean in summer. This cannot be done if the plants are in an exposed dry position. When at Hackwood Park, about April 20, I was surprised to see a row of the double lilac, about 6 yards long and 1 foot wide, literally covered with bloom. Nothing could be more lovely as an edging to a border. The position was somewhat shaded, being screened from the midday sun by a high wall.—J. CROOK.

**Mr. W. Crump**, Madresfield Court Gardens, has been elected on the Education Committee of the Worcestershire County Council. We are glad to see that Mr. Crump's work has been recognised. For some years he has been very earnest in his endeavours in connexion with the County Council's scheme of technical education for improving the knowledge of hardy fruit culture, which is such an important industry in the southern and western portions of the county.

**Protecting Carnations.**—Town gardeners perhaps more than gardeners in the country suffer from the depredations of sparrows, and Carnations are generally severely attacked. It seems to me a great waste of time to go to the trouble of placing black thread over these plants in order to keep off the sparrows; after a time the birds get accustomed to the thread and it loses what efficacy it first had, while the threads are often broken or displaced. I have always found it much simpler and also more effective to cover the bed with ordinary garden netting. One has only to place forked sticks at intervals over the bed and put the netting over them, pegging it down around the edge of the bed, the plants are then perfectly secure from birds, and probably they appreciate the covering in another way also, for the netting helps to shelter them from the sun, and small plants especially seem to like this slight shade.—H. A. P.

**Improper tree pruning.**—I had an excellent opportunity recently of seeing the results of good and bad forest tree pruning, a subject that Mr. Bean and others have on several occasions drawn attention to in THE GARDEN. As they have pointed out, if, when cutting a large branch from a tree, a stump is left which juts out from the tree for an inch or two, this is almost certain in time to perish, either by decay caused by dampness or by disease; it never properly heals, because the cambium (that is the growing) layer does not form a tissue to cover it. If, however, the branch is cut back level with the trunk or branch from which it originated, the cut surface gradually becomes completely covered with a woody tissue arising from the cambium layer. The tree which plainly showed the two cases of good and bad pruning was an old Cedar, which had been cut down. In the one instance where the branch had not been properly cut back decay had set in, and had spread down a large limb; in the other, the wound had become covered with woody tissue, and no harm at all had followed the operation. It was most instructive to notice the great difference in the results of cutting back the branch close to the tree and in leaving a stump an inch or two long.—H. A. P.

**Gerbera Jamesoni.**—This beautiful composite, commonly known as the Transvaal Daisy, has of recent years become a favourite plant for the cool greenhouse. Those who are growing it under such conditions should be rewarded for the little care that it is necessary to bestow upon it, for now the plants are throwing up their solitary flower-heads of brilliant orange-crimson. The flowers might well be used for decoration, as they are of a pleasing shade and produced on long stems; they will remain fresh when cut for many days. Gerbera is often compared to a Dandelion, but, beautiful as the Dandelion is (and we should think it more so if it were less common), this comparison does not do justice to Gerbera. Some excellent notes in past numbers of THE GARDEN by Mr. R. I. Lynch tell us how well adapted this plant is to outside culture in a position fully exposed to the sun. A description has also appeared of the magnificent clumps to be seen in a well-known garden in the Isle of Wight in a favourable position and a light sandy soil.—H. C.

**Primrose flowers destroyed.**—I notice in THE GARDEN of the 30th ult. that a correspondent makes enquiry as to what insect or bird it is that destroys the flowers of his Primroses and Polyanthuses. In reply, I may first of all state that your correspondent is by no means alone in this respect, as I have had a great many flowers of both destroyed this season, and have also heard others complain of the same thing taking place. With regard to the depredators, these are in my case both sparrows and wood-pigeons, and I fancy

if your correspondent would keep a sharp look-out he would find one, or perhaps both, to be the cause of the mischief in his particular instance. I had never suspected wood-pigeons of pulling off the flowers of either Primroses or Polyanthuses before, but had the matter brought forcibly before me a few days ago in consequence of one of the men, whose duty it is to unlock the garden gates first thing in the morning, having put up some of these birds from off the kitchen garden flower-borders. On going to the spot the ground was strewn with freshly plucked off flowers, and, on further enquiry, I found they had been seen doing the same mischief on another part of the estate a few days previously. Why they do it I am at a loss to explain, as the flowers are simply pulled off and left. With regard to the sparrow, this bird pulls off the flowers out of sheer mischief, and I found some plants under a Quick hedge almost entirely bereft of flowers by these birds a few days since, so that your correspondent will see that the damage is not confined to gardens alone. In spite of netting and shooting sparrows are more numerous than ever this spring, and I am afraid that their depredations complained of above will be as nothing compared to the damage they will be inflicting soon on Peas, &c.—A. W.

**Schizanthus retusus Grahmi.**—Few greenhouse plants are more useful or more easily grown than the Schizanthus, and there are some good things among them now. For instance, *S. wisetonensis*—whose flowers vary through a wide range of colour, cream, pink, mauve, marone, bronzy brown, &c.—is a charming plant, and with this as with other Schizanthus flowers may be had practically all the year round if successive sowings are made at proper intervals. *S. retusus Grahmi*, the subject of this note, is another beautiful form, rich pink, with bright yellow lip, making a fine display in the greenhouse or conservatory at this time of year. With this and *S. wisetonensis*, to say nothing of the better known ones, quite a pretty group might be made, and, doubtless, many a greenhouse would be the brighter for their inclusion.—A. H. P.

**Muscari moschatum.**—Some of the Muscari are invaluable for planting in the spring garden where colour masses are wanted. What other plants then in flower can provide such glorious groups of blue as, say, *M. conicum*, *M. grandifolium*, *M. botryoides*, and others? To see really what a display they are capable of making they must be planted in groups or colonies, it is no use dotting them about. The one under notice, however, has no such claim to distinction as those mentioned, for the colour of its flowers, greenish yellow, with a pale lustrous blue tint, does not make them conspicuous. This plant soon makes its presence known, however, by reason of its powerful and pleasing fragrance, and for that reason a clump of it in the garden is well worth having. It is a good plant for the town garden (as, indeed, are the most brilliant Muscari), the conditions prevailing there do not appear to affect it adversely. I believe I am correct in saying that this is the true Musk Hyacinth, the typical species. One rarely sees it in gardens, and probably because of its quiet colouring. Fashion nowadays in gardening appears to favour plants with rich and brilliant hued flowers, and as a result many of those, which, like *M. moschatum*, are less conspicuous, are neglected.—A. H. P.

**Droitwich Experimental Garden.** The eighth annual report of this garden, the fourth annual report of the County Instruction Gardens, and the twelfth annual report of gardening instruction have been issued together by the Technical Instruction Committee of the Worcestershire County Council. The greater part of the booklet is taken up with the report of the Droitwich Experimental Garden, by Mr. James Udale. From it we learn that the garden is two acres in area, numerous experiments are proceeding in regard to pruning and non-pruning of fruit trees, the effects of lime as a manure to fruit trees, the eradication of finger and toe disease, and also as to results from different kinds of manures to various crops of vegetables growing under equal conditions in all other respects. In 1897 there were 991 visitors

to the garden, in 1903 there were 2,043. The report is full of valuable information. With respect to Apples we read that the most fruitful varieties in 1903 were Beauty of Kent, Ecklinville Seedling, Bramley's Seedling, Cellini, Betty Geeson, Duchesse's Favourite, Lord Grosvenor, Mr. Gladstone, Potts' Seedling, Ringer, Royal Jubilee, Stirling Castle, and Schoolmaster. Sixty-four varieties flowered and thirty-nine varieties gave fruit, the total weight of Apples being 566lb., the second best crop since the trees were planted. Lime appears to have a direct influence upon the fruitfulness of Apple trees. Of those trees bearing fruit in the years 1900, 1901, 1902, and 1903 a majority had annually received an application of 5lb., and latterly 6lb. of lime. During 1903 273 boys received instruction in gardening in Worcestershire County Instruction Gardens at eighteen centres. The gardening instruction of the county is still committed to the Union by the County Council, and Mr. James Udale and Mr. Joseph Laosdell continue to do excellent work as instructors for Worcestershire. During the twelve months ending August 31 last, fifty-seven lectures were given, the average attendance being thirty-six.

**British Forestry.**—In a paper read before the Farmers' Club recently on "British Forestry as a Rural Industry," Mr. A. C. Forbes, Longleat Nurseries, came to the conclusion that, under certain conditions, timber-growing in this country is likely to pay. It pays to grow Ash and Larch, and probably also Douglas Fir on suitable ground. Coniferous timber will only pay when grown in larger quantities than is now the case on the poorer soils. He estimated that the produce of some 5,250,000 acres of Pine forest is consumed annually by railways and coal mines, and that the supply from this country is never likely to exceed the demand. Planting of poor agricultural land gives every promise of paying if carried out on the proper lines; a larger bulk of suitable timber instead of a number of samples of doubtful type should be grown, and this must stand until mature, and yet not too long to become half rotten.

## PLEA FOR A GARDENERS' ASSOCIATION.

AN effort is now being made to realise a long-felt desire for an association, which shall include all who are professionally employed in any branch of horticulture, including private and public gardens, the nursery and seed trade, and market gardens.

The objects of the association will be: (1) registration of gardeners; (2) regulation of wages; (3) regulation of working hours.

These three are admittedly the most urgent matters requiring attention. Other questions which the association might take up subsequently are the proportion of apprentices or improvers to journeymen, especially in private gardens; foreign or alien labour; the assistance of sick and aged members and of gardeners' orphans who may be in need.

There is no reason why gardeners working together and in the true co-operative spirit should not obtain such control over questions of this kind, which directly affect the welfare and happiness of the individual and the best interests of British horticulture, as would enable them to deal effectively with grievances as they arise. There is little doubt that the employer has often cause to complain of the dull-witted, unskilled "gardener" who does so much to keep the status of the profession at zero, and who will continue to foist himself on the employer so long as means are not adopted to secure to the employer some guarantee of the competence of the candidate for employment.

Although gardening is one of the oldest and also one of the most important industries of this country, its votaries are absolutely without organisation. It is said that there are 10,000 gardeners in England alone, but if we include commercial and trade gardeners there are probably at least as many more. An association that succeeds in uniting them on co-operative lines will constitute a force which, under proper guidance, will lift the



ROCK GARDEN MAKING.—AN ORDINARY GRASS FIELD TRANSFORMED INTO A ROCK AND WATER GARDEN AT ABBOTSBURY, NEWTON ABBOT, DEVON.

profession into a higher position than it occupies now. The right of workers to combine for mutual protection and assistance is now recognised and even encouraged. Trade unions, friendly societies, co-operative societies, and similar institutions provide a means for attaining and conserving that independence which is not only a source of strength, but the foundation of prosperity and happiness.

An objection urged against the proposed association by a few employers and gardeners is that it would cause strife between employer and employed. This objection is a remnant of that prejudice against all workmen's combinations which a century ago led to their prohibition by law. But a very different view prevails now. A few years ago a select committee of the House of Lords, after an elaborate enquiry into what is known as the sweating system in many branches of industry, reported that "With respect to low wages and excessive hours of labour, we think that good may be effected by the extension of co-operative societies, and by well-considered combination among workmen." The late Duke of Argyll, whose views will command respect, said: "The instincts of men, truer often than the conclusions of philosophy, have rebelled against the doctrine that they are the sport of circumstances; yet finding by hard experience that this is often true of the individual standing alone, they have resolved to try whether it is equally true of the collective will, guided by the spirit and strengthened under the discipline of association."

Whatever mistakes may have been made by other combinations of workers, it is not the intention of the promoters of the Gardeners' Association to attempt anything inconsistent with the rights either of employer or employed, or which will not commend itself to all who have the welfare of horticulture at heart. The question of wages will undoubtedly demand attention. Generally the wages of gardeners are less than those of ordinary mechanics who build their greenhouses, &c., and whose intelligence and responsibility are, as a rule, below those expected in the average gardener. The argument that gardeners' wages are low because gardening is a luxury is not worth consideration. Employers

get labour as cheaply as they can. In many cases the agent or manager controls such matters, and it is certain that if the price of garden work were raised, employers would pay it as they do that of other skilled labour, the price of which has been increased 25 per cent. to 50 per cent. within the last twenty-five years, whilst the gardener's wages have stood still.

There can be no question that the individual workman has little chance of obtaining fair wages unless all of the same class agree not to accept less, and there can be no agreement that will hold without a properly organised association, controlled and guided by a desire to promote the interests of both employer and employed. Low wages do not always mean cheap labour. A discontented man is not actuated, as he ought to be, by a sense of duty, and is, in consequence, often a poor workman. He labours under a feeling of unfair treatment, and his work suffers in consequence. The success of British workmen compared with those of other nations is due as much to their healthy, independent condition as to their inherent skill.

#### REGISTRATION.

The association will endeavour to control and regulate the labour market for gardeners by keeping a register of members, in which will be recorded the qualifications and experience of every certificated member. It will be open to every employer to make enquiry as to the competence and character of an applicant for employment, who, if not a member, would probably be known to some of those who are. By this means the association will ensure to employers more reliable testimony as to a gardener's character and qualifications than is generally to be obtained now.

It will be to the best interests of the association to insist on as high a standard of skill as possible among its members, and to refuse to help the impostor and one who is otherwise unworthy. Every member should, therefore, consider himself a guardian of the status of his profession. The inefficiency of many gardeners is unfortunately too true, a lack of education as well as bad training

being too often observable in them. It is also to be feared that boys are accepted as garden apprentices who are too dull and unpromising to find employment in other industries. The association will be opposed to all such weakening influences as these. It is only by insisting on a higher standard of intelligence, as well as of professional knowledge and skill in the youths who desire to qualify as gardeners, that the position of the gardener can be improved. Employers who have reason to complain of the want of skill and forethought in the men to whom they have entrusted their gardens will no doubt recognise the desirability of an organisation the main object of which is to guarantee trustworthy gardeners of sound ability, and to secure for them reasonable remuneration for services rendered.

#### REGULATION OF WORKING HOURS.

The working hours for gardeners vary in different parts of the country. There is also considerable disparity between the time worked in private gardens and public gardens in the same district. Gardeners cannot hope to get an eight hours' day, but it ought not to be difficult to fix the limits of a day's work, beyond which all labour should be counted as overtime. A small staff of efficient men, properly controlled and working a reasonable day, will do more work, and do it better, too, than twice as many men left to drag through a long day doing what is called routine work without either interest or intelligence. Excessive work, whether from long hours or from overwork, is disastrous morally and socially, as well as mentally and physically, and at the same time, by its exhaustive process, it really diminishes the productive power of the worker.

It is important that gardeners employed in commercial horticulture should take part in this movement. Commercialism has affected horticulture, as it has so many other arts in this country, and there has been an enormous increase in the number of nurseries and market gardens in the last twenty-five years. The training to be obtained in some nurseries is of such a quality that it should be sought by young men actuated by the progressive spirit, for this country offers opportunities to the gardener where the farmer has failed, and there are many capable young men "champing the bit" in private gardens who might be profitably employed, both for themselves and the community, in some department of commercial horticulture. The Gardeners' Association may be able to assist by endeavouring to obtain land on easy terms for horticultural industries. It may also do something towards removing other disabilities and obstacles, such as insecurity of tenure and the costly system of distribution.

#### PUBLIC MEETING.

The meeting to be held in London, on Wednesday, June 1 next (the second day of the Temple show), should be supported by all who are interested. The movement is essentially a co-operative one, and its success, therefore, depends on individual effort. It is most important that the first meeting should be representative of the whole field of horticulture, and gardeners of all classes—private gardeners and journeymen, gardeners and assistants in parks and public gardens, nurserymen, their foremen and assistants, seedsmen and their assistants, horticultural instructors—all are urged to be present.

The meeting will be held in the Essex Hall, Essex Street, Strand, at 6 p.m. (doors open at 5.30). All those who sympathise with this movement should write to the secretary, W. Watson, Kew Road, Kew, who will be glad to receive contributions towards defraying the expenses of printing and distributing this pamphlet, and of the meeting to be held in June. Copies of the pamphlet for distribution may be obtained from members of the committee.

[We are very pleased to print these notes sent to us by Mr. Watson, Curator of the Royal Gardens, Kew.—Ed.]

## NOTES ON HARDY PLANTS.

## NEW CORYDALIS.

**M**ANY of the plants introduced from China during the past fifteen years are much sought after, and their culture has quickly spread. Others less remarkable have remained in the background, and have been cultivated only by amateurs. Again, some, being only of botanical interest, have been looked at, named or not as the case may be, and then lost. The genus *Corydalis* must be placed in the second category.

Modern discoveries in China and the neighbouring regions make up the total number of species known from 100 previously known to 150. Most of these, it is true, exist only as specimens in the herbarium, but several have been grown in European gardens, and are retained on account of their interest. We should like to make some of the latter known to our readers, for they deserve attention, especially by those who cultivate rock garden plants.

*Corydalis tomentosa* (N. E. Brown).—This species is allied to *C. tomentella*, from which it differs by having more spreading leaves covered with long white hairs, by its radical flowering stems, and by the flowers, which, although yellow, are of different form. A native of China, introduced into England in 1902 by Mr. E. H. Wilson for Messrs. James Veitch and Sons.

*C. Wilsoni* (N. E. Brown).—The plant is glabrous in all its parts; the leaves, glaucous green, produced in rosettes, are bipinnate. The flowers are rather large, of a deep yellow marked with green, freely produced in bunches. A native of China, introduced into England in 1902 by Mr. E. H. Wilson

for Messrs. James Veitch and Sons. These *Corydalis*, coming from regions of varying temperature and climate, have different cultural requirements, which it may be useful to point out. *C. tomentella*, which, unfortunately, is not very vigorous, and does not do well in the open air, except during summer, should be planted in warm and dry places. It does not stand the cold and wet of winter, but is easily preserved under a cold frame. It is rather short-lived, but is easily propagated by sowing seeds.

*C. cheilanthisifolia* is, on the contrary, an extremely robust plant, standing our winters perfectly, even preserving its foliage, and is of peculiar decorative effect from the abundance of its bright yellow erect flowers, which begin to open about the middle of March. With age it forms rather large, compact tufts, which have an elegant appearance, and are not unlike some Ferns. The plant produces seed which sows itself.

*C. thalictrifolia*, which may be rightly considered as one of the most beautiful species, is a native of the same locality as the Chinese Primrose, and, like it, requires the shelter of the greenhouse. Its long rhizomes are found growing among stone, and this indicates in some measure the treatment which suits it. It is, however, much more delicate than most of its congeners, and also rather difficult to grow. We have, however, seen some very fine groups in the large temperate house at Kew.

*C. ophiocarpa* is really more curious than beautiful, but it has the advantage of readily accommodating itself to our climate, where it seeds, spreads, and becomes naturalised. The thick, angular stems and peculiarly-tinted foliage render it attractive when it is grown in masses. It is too early to speak with certainty of the culture of the two latter, but their affinities seem to indicate that *C. tomentosa* requires the same treatment as *C. tomentella*, and *C. Wilsoni* probably the same as *C. cheilanthisifolia*.

S. MOTTET,  
in the *Revue Horticole*.

## IRIS BUCCHARICA.

This charming Iris is doing well here this season, and is now very beautiful. It is of recent introduction, and was awarded a first-class certificate by the Royal Horticultural Society in 1902—a well-deserved honour. It is not described in Mr. J. G. Baker's "Handbook of the Iridæ," but belongs to the same group as *I. orchioides*, which it greatly resembles in general appearance. It possesses the erect, firm habit of that species, and its fine leaves are equally shining, as if varnished. The leading flower is at the top of the stem, and is of good size, creamy white, with a broad fall of bright yellow, pencilled with brown. From the axils of the leaves additional flowers are produced. It has been grown here in the open without any protection in a sandy, peat soil, and in a sunny position. *I. bucharica* should become a favourite flower with those who can grow such Irises as *I. orchioides* and its

forms and allies. The first flower opened here about April 20.  
S. ARNOTT.

## IRIS WARLEYENSIS.

LIKE *Iris bucharica*, *I. warleyensis* is proving one of the finest and most ornamental of the Irises of the *orchioides* group, while in its colouring it presents a greater variety from the typical *I. orchioides* than the first named. It has been here since the autumn of 1902, and flowered both last year and this. The colour is pale purplish blue, while the fall has a deep violet patch which almost surrounds the yellow. In its general appearance it is easy to discern the relationship to *I. orchioides*. The leaves partly sheath the stem, and shine as if varnished. In addition to the flower produced on the top of the plant others proceed from the axils of the leaves. I have found no difficulty in cultivating these Irises in light sandy, peat soil and in a sunny position. I have not found that they require any protection in winter, though late frosts, if severe, might injure their flowers.

*Carsehorn*, by *Dumfries*, N. B. S. ARNOTT.

## THE ROCK GARDEN.

## ROCK GARDEN-MAKING.

## XVIII.—WATER IN THE ROCK GARDEN.

**L**UCKY, indeed, is the owner of a garden who has a stream of running water through his grounds. Water is the life of scenery. Picturesque vegetation, blended with rocks and running water, is the most fascinating picture Nature can produce. Hence, in the rock garden, where we try to follow Nature's laws in the arrangement of everything, the addition of water is a most important factor, enabling us to impart to the silent rocks the charm of life and beauty, pleasant not only to the eye which follows the rippling water in its merry dance over rocks and boulders, but also to the ear on which the soothing murmur of running or falling water has a particularly pleasing effect. I do not wish to imply that no rock garden can be perfect without water; on the contrary, I have shown in previous chapters that without the presence of any water whatever very interesting and even picturesque rock gardens might be constructed, but so great are the additional advantages of water that whenever the chance occurs to have it introduced into the rock garden it would be foolish not to take full advantage of such a chance. Nor is it from a picturesque point of view only that water is so desirable, but it is most useful as well. Since mountain plants from high alpine regions require a moisture-laden atmosphere to flourish in, this can be supplied in the rock garden through the constant evaporation from ponds or streams. For watering purposes, too, the water, say from a pond among the rocks, is more beneficial to the plants than if supplied by means of a pipe or hose.

## EVILS OF STAGNANT POOLS AND FOUNTAINS.

Desirable as water may be, there are, however, two forms of it which, in my opinion, are most unsuitable to a rock garden, namely, a stagnant pool and a fountain. The former is an abomination wherever it may be. It becomes covered with slime and filth injurious to choice Water Lilies, &c., to say nothing of the evil odours constantly arising from such a pool. A fountain is free from such danger, but it is equally objectionable for other reasons. When we make a rock garden we try to imitate Nature, and endeavour to place the rocks in such a way as to conceal their artificial origin, and strive to make our handiwork as bold and



GRASS FIELD TRANSFORMED INTO ROCK AND WATER GARDEN IN THE GROUNDS OF THE LATE MR. EDWARD FISHER, ABBOTSBURY, NEWTON ABBOT, DEVON.

rugged as possible. But a squirting water-spout, or in other words a fountain, is utterly out of harmony amongst such surroundings. In a formal garden, or even on a lawn or amongst beds of flowers in a more or less regular part of a pleasure ground, a fountain may be quite desirable, but in a rock garden it is one of the things to be avoided at all times.

On the other hand, such forms of water as a Lily pool fed by a streamlet, a running brook, a spring emerging from a cleft in a rock, waterfalls of various kinds, or a bog garden are desirable, and if adorned with an appropriate fringe of vegetation such forms of water would greatly enhance the charm of a rock garden, even if this be only on the most modest scale, because it would make it more interesting and picturesque, and last, but not least, it would enable us to grow an infinitely larger variety of plants.

#### THE IDEAL SITE FOR A ROCK AND WATER GARDEN

would be, say, an old disused quarry pit with a running streamlet near it. On such a site both rocks and water would provide endless scope, and might be arranged in a variety of ways without much trouble. It would, in fact, be possible to obtain the maximum of effect at a minimum of labour and cost. All that might be needed in such a case would probably be to make the outlines of the quarry as rugged as possible by excavations and additions, and to use some of the stones thus gained for the judicious embellishment of the natural stream, which might otherwise be left practically unaltered in its course.

It is seldom, however, that such ideal conditions prevail, and in ninety-nine cases out of a hundred it would most probably be necessary to have the water laid on in pipes, &c., and to have the sides and bottom of streams and ponds secured by a substantial concrete, preferably cement. I have a great aversion to cement in a rock garden, and never use it when I can avoid doing so. But in the case of water artificially introduced there is, as a rule, no help for it. And, after all, what does it matter, as long as every trace of cement is afterwards masked in such a way that no one can possibly suspect its presence, while, on the other hand, permanent stability is secured by its use. The mistake most people make when constructing ponds or other forms of water in the rock garden or any other part of their grounds is that they have the masonry part carried above the waterline in such a way as to leave an uniform and continuous margin of cement or stones plainly visible at all times, even when the pond is quite full. This method I consider absolutely wrong, since it is impossible to reconcile such a stiff margin with the idea of Nature's work. In order to illustrate my own method of dealing with this difficulty (if it can be so called) I have photographed two views, which show portions of the rock and water garden at Abbotsbury, Newton Abbot.

The site for this rock garden was an ordinary grass field. All irregularities had to be produced by excavating or filling, and, to confine the water, cemented channels and concreted ponds had to be constructed. A glance at the illustrations, however, will show that there is no indication of this or of masonry of any kind. The first picture shows a Lily pool adjoining a bog garden fed by the overflow. The plants in the centre are *Iris Kämpferi* and the broad-leaved, white-flowering *Gentiana thibetica*. In the pond itself are choice *Nymphaeas*. The margin is not continuous, but is broken here and there by grassy banks

dipping into the water, and studded with *Scirpus*, *Carex*, and groups of German *Iris*. In other portions the rocks reach down into the pond, and are clothed with an abundance of good rock plants of every description.

The second illustration shows in the distance a portion of the stream (an artificial one) which feeds the pond. From the spot from which the photograph was taken the remainder of the streamlet (though visible from other points) is hidden from view by various Grasses, and by *Osmunda regalis*, *Saxifraga peltata*, and other plants.

A detailed description how, in the case of the above illustrations, all cement work was masked I will give in the next chapter, where, by way of further explanation, I will illustrate also a pond in the preparatory stage, the half-finished, and the finished stage.

*Elmside, Exeter.*

F. W. MEYER.

(To be continued.)

## AUTOMATIC PLANT WATERING.

**T**O water plants properly is a matter of care; to do so just at the proper time requires an experience which is not acquired all at once. Those who have little time to devote to their plants can secure their correct watering without personally giving much attention to it. It can be done by using for the purpose an apparatus which, working upon the principle of capillary attraction, ensures water entering the soil, and also that the soil imbibes a sufficient quantity of it. We have often had occasion to call the attention of our readers to different systems of automatic watering for plants in pots, principally to that of the underground vessel of Dr. Martinetti. We cannot insist too much upon their utility and convenience, especially for the watering of the plants cultivated in rooms.

Making use of the same idea, continuous and regular watering can be effected by the aid of a contrivance—the "Automatic Waterer." This acts in the same way as the little glass drinking vessels used for supplying water to birds. It distributes the water in a methodical and rational manner, the flow being in proportion to the suction of the soil as the latter becomes dry either from the moisture taken up by the roots or from evaporation. This apparatus has the advantage of being visible, and of permitting a better regulation of the supply of water. It consists of two distinct parts—(1) a glass globe, terminating in a neck which fits into (2) a cylinder of porous terra-cotta. The brim of this cylinder is level with the surface of the soil; the lower part is the shape of a bottle from which the upper part has been cut off. It is used in the following manner: The little cylinder being held between the thumb and index finger of the left hand, with the index finger inside the basin so as to stop the orifice of the little tube, the latter is filled with moist soil, which is slightly pressed, in order that it may remain in its place when the cylinder is turned up as it is deposited in the soil. For this purpose, in the spot where the apparatus is to be placed a little circular hole is dug. Into this hole the little cylinder is fitted, being sunk until its upper brim is exactly level with the surface of the soil. The glass globe is then filled with water and turned upon the cylinder, with the neck fitting exactly into the orifice of the latter. The water immediately flows and fills the cavity at the bottom, the earth in the tube is moistened, and communicates its moisture to the earth in the flower-pot.

From that moment the action is regular. The more rapidly absorption takes place, the more rapidly the globe is emptied. When that ceases the water cannot flow. When empty it is refilled and replaced; there is no necessity to remove the cylinder from the neck in order to do this. It is prudent, however, to remove the cylinder every second month, to clean it thoroughly, and then to change its situation in order to avoid having too much moisture in the same spot, lest it should encourage the decomposition of the soil at that place.

It will easily be understood that the apparatus is not powerful enough for a large volume of soil, and that the watering under such conditions can only be irregular with a single apparatus. It is the same with plants placed in the full sun in summer, but in this case watering is not such a delicate affair as it is with plants grown in rooms, an excess of moisture being then less to be feared. Consequently, in order to obtain regularity of watering, one apparatus will be required for pots of from 12 centimetres to 15 centimetres in diameter; two will be necessary for those of from 15 centimetres to 20 centimetres; three for those of from 21 centimetres to 25 centimetres; and four for pots of greater diameter or for tubs of moderate dimensions. Except where there are only one or two of them in a pot it is scarcely necessary to change the positions of the apparatus; as for the others, they can remain in the same spot, only care must be taken to clean the cylinder.

We may add that this apparatus is not only of use for plants grown in rooms (especially if the rooms are heated by stoves), but it is also of excellent service in securing the regular watering of plants grown in baskets and jardinières, and which it is a difficult matter to keep in a moist state. Indeed, it used to be difficult enough to keep these corbeilles and baskets (especially when not provided with an inner zinc receptacle) properly watered—the water escaped and soiled everything—but now plants in these as well as in pots can be regularly watered without giving too much if the apparatus is set to work normally. If, owing to a long spell of wet weather, the soil appears to hold too much moisture, one has only to lift up the glass



CROSS DIAL, COMPTON.

bulb; if, on the other hand, it is too dry, and the bulb does not supply sufficient moisture for a few days, there will be no harm in giving one or two ordinary waterings.

ALBERT MAUMENE, in *Le Petit Jardin*.

## AN OLD SUNDIAL.

A FRAGMENT.

**A** CRUMBLING sundial in the midst of a sunny, old-fashioned garden—if such be ours, let us reverence it and leave it, as far as may be, in its own surroundings, for it is precious beyond price. We are—or so it seems to us—bringing back the old-world sundial by modern device. Hoary and grey, however, is the old sundial, the work of an age gone by, dappled with tawny lichen—the mute recorder of the passing of long summer days, the patient butt of countless winter's frosts—with broken angles and worn and fretted lines, which once came sharp and clear from the carver's chisel. There it stands—as mayhap it has stood for a century past—to tell of the flight of Time.

Did Time ever fly, we ask ourselves, in those old, old days, when the hours seemed to creep by so silently on tip-toe; while yet, nevertheless, in the stillness great deeds were planned and carried out, and noble thoughts conceived and graven as in the rock for ever? Or, does it indeed fly more swiftly now—that we have the world's news of yesterday lying upon our breakfast tables to be scanned in five minutes, and the whirr of the motor-car panting breathlessly along our quiet country lanes?

We are bidden in this twentieth century never to moralise. What room, then, can be found in the garden of to-day for a gnomon that points the most solemn moral in the world? And yet—do we not steal away to the rambling, old-fashioned garden or the flagged courtyard, more dear to us than any trim parterre, and trace out there the worn letters of the ancient legend which speaks its God-given message of the passing hours? We fancy, perhaps, that it is merely the quaint beauty of the old sundial in its tranquil setting that draws us to the spot, but the secret lies deeper far than this, and ever, as the years go on and we are wise and happy, we thankfully lay to heart for Time and for Eternity its silent reminder:

"Time is—and is not.  
Let us  
Each passing hour  
Serve God  
And one another."

## THE FLOWER GARDEN.

### POLYANTHUSES FOR SPRING BEDDING.

**W**ET and mild winters seem to suit the Polyanthuses, for they have ever since the middle of March been making a grand display. The strain worked up and so much improved by Mr. Crook of Forde Abbey, Chard, is a very beautiful strain, the flowers are very large, and have great variety of bright and showy colours. Many of the flowers cannot be covered by a five shilling piece. Some few years back I did not think the Polyanthus effective enough for beds for spring bedding, the majority of the flowers were small and dull, and the gold lacing was too narrow to be effective at a distance from the plants, although very pretty close to it. Some five years ago Mr. Crook walked through the gardens here, and after looking at the different patches of Polyanthus, asked me to try some seed from his strain, and these so delighted

my employer and myself that we have now got planted out in beds, borders, and in the grass over 6,000 plants, and I do not think any plant is more lovely for spring bedding than this. The seeds should be sown at the end of April or quite early in May in boxes, in a compost of loam and leaf-mould, and placed in a close cold frame till they have germinated, and as soon as strong enough prick them out in boxes in the same sort of compost and return to the cold frame. Shade from bright sunshine, and when well rooted give air freely except when the wind is very drying. As soon as the plants get large enough plant them out in a well prepared nursery bed, and give plenty of water. Keep the hoe moving between them during the summer. About November, when the beds and borders will be ready for them, they can be lifted with a ball of earth and carefully planted. They will grow freely and begin to flower quite early in March. The two year old plants make grand plants for large beds.

W. J. T.

*Sandhurst Lodge.*

### MIGNONETTES.

The deepest red is the Victoria; it is richer in colour than the Crimson Giant, which is a strong-growing Mignonette. Mchet is a rather dwarfier-growing Mignonette, and a general favourite. Golden Queen and Golden Mchet lead the way with the yellow Mignonettes. To do Mignonettes full justice they should be allowed to flower where they are sown. As a rule they transplant indifferently, and the plants sustain a considerable check. A new white variety of the Mchet is one of the novelties of the present year. R. D.

### 1903 AND THE DAFFODILS.

I HAVE much pleasure in responding to the invitation of "S. G. R.," Yalding, aent this subject, and can safely say that I have never known Daffodils to flower more satisfactorily than they have done this season. Of the many thousands I grow in the flower borders and wild garden there has not been a single failure so far, and in many instances the individual blooms have been abnormally large. The season opened with *N. pallidus præcox* and the pretty little *N. minimus*, and then followed in quick succession *N. Trumpet-Major*, *N. Golden Spur*, *N. princeps*, *N. Orange Phoenix*, and many others too numerous to mention. At the time of writing the flowers of *N. poeticus ornatus* are fading, and these have flowered with the greatest freedom. *N. poeticus* is not yet open, but will be so in the course of a day or so, while the double variety or the Gardenia-flowered *Narcissus* is quite as promising as last season, each clump having sent up a number of flower-spikes. These latter will bring the Daffodil season to a close, and providing the promise held out by them is fulfilled then the season will have been a most satisfactory one in



SUNDIAL AT BELTON HALL: TIME AND CUPID.

every sense of the term. Two seasons ago I planted a good many of the Polyanthus *Narcissi* outdoors, such as *Gloriosa*, *Newton*, *Lord Canning*, *Jaune Supreme*, and *Grande Monarque*. With the exception of the last named all have succeeded very well indeed, and flowered freely enough this season under the shelter of beds of flowering shrubs, and in company with *N. incomparabilis stella*, *N. i. Figaro*, and *N. Barri conspicuus*. *Grande Monarque* appears to be too tender for outdoor culture, and it does not increase as the other varieties named.

A. W.

### THE FUCHSIA AND ITS USES.

THERE are few flowering plants that surpass the Fuchsia for utility and effectiveness, as well as the varied uses to which it may be put. No matter for what purpose the plants are grown, they are always attractive and graceful, and are easy to propagate and grow. For forming specimens in pots for the conservatory and home there is no better form of training than the pyramid, for then the intrinsic beauty of the plant is seen to advantage. There are many garden varieties now in commerce that do not form well-shaped specimens. The best I have grown are *Mme. Jules Chrétien*, *Rose of Castille*, *Mrs. Marshall*, *Avalanche*, *Beauty of Trowbridge*, *Lye's Own*, *Gazelle*, and *Improvement*. These are, without exception, of good habit and free growth. Cuttings may be struck in pots filled with light, sandy soil, and plunged in the propagating bed. When rooted pot off singly, and keep growing in a humid temperature of about 55° to 65°. Do not pinch

out the point of the leading shoot until it is 12 inches high. When the point is taken out the plant will naturally break away strongly from the base.

The lateral shoots should be pinched when they are 3 inches long. Allow another strong shoot at the apex to form a secondary leader. Place a neat stake to the main stem early, and keep the leader tied loosely to it. For the growth to be unchecked from the rooted cutting to the finished specimen is the secret of success in the pot culture of the Fuchsia.

Frequent syringings with tepid water are essential, in conjunction with a genial temperature. The soil should consist of equal parts loam, leaf-soil, and decomposed cow manure, with plenty of sharp sand or road grit added. If good loam is unobtainable, then some peat should be used. As the roots permeate the new soil move the plants into larger pots. When the roots reach the sides of the pots in which the plants are to flower a weakly application of liquid manure or soot water should be given. Pinch out the points as growth advances to induce a sturdy habit.

As a bedding plant the Fuchsia ranks high. Good varieties of garden origin for this purpose are Mme. Cornellison, Lye's Own, Charming, and Mrs. Marshall. Uniform growth is essential for bedding purposes, and these varieties may be expected to fulfil this requirement. To ensure having strong plants for bedding out in early June the cuttings should be struck in autumn when the wood is half ripe. The young plants may be potted off singly in February, and grown on freely prior to being hardened off for placing in the beds. These plants may be lifted in autumn and potted up for bedding again the next year.

Hardy Fuchsias are well worthy of more attention. I can recommend Riccartoni, gracilis, coccinea, globosa, and Fortunei. For forming a permanent hedge or clump these answer well, and in districts near the sea coast, where they are seldom cut down by frost, hedges or clumps of Fuchsias are remarkably effective. Occasionally one sees the Fuchsia trained up the rafters or pillars of the conservatory, and here the beauty of the plant is well displayed, as their flowering shoots are allowed to droop naturally.

The best varieties I have grown for this purpose are Beauty of Swanley, Lucy Mills, Earl of Beaconsfield, Mrs. Marshall, Lady Heytesbury, Lye's Own, and Rose of Castille. These may be grown on in pots, and when large enough placed permanently in restricted borders or in large pots. When well established feed highly, always bearing in mind that the Fuchsia, when in active growth, is a gross feeder.

Stoneleigh.

H. T. MARTIN.

### RECENT PLANT PORTRAITS.

THE May number of the *Botanical Magazine* contains portraits of

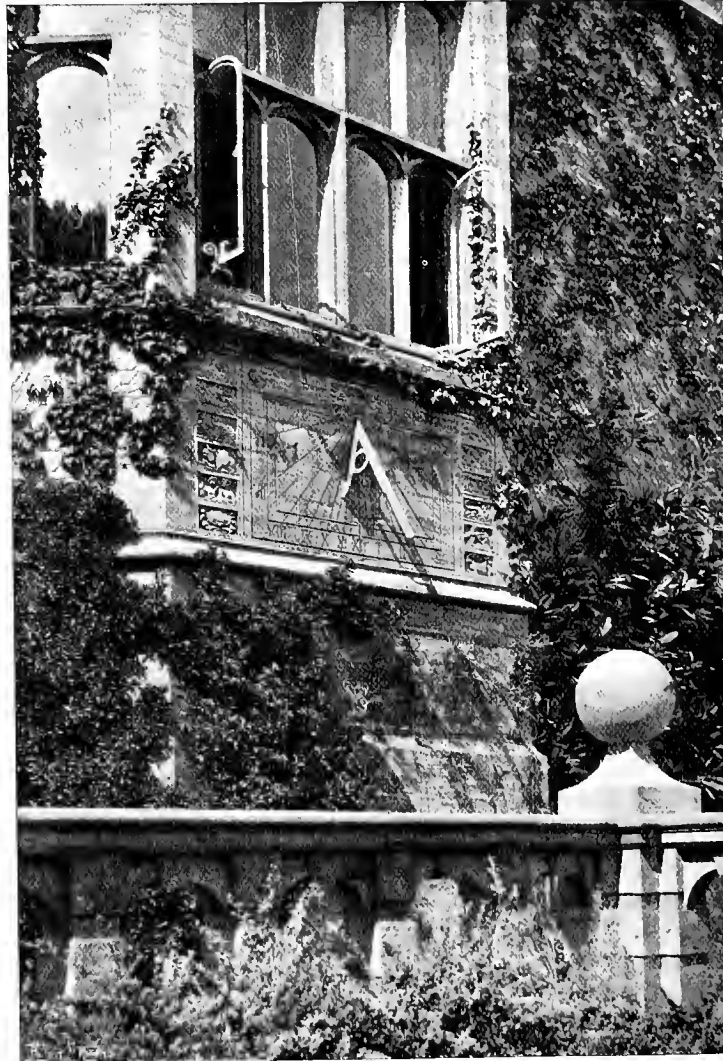
*Epipremnum giganteum*.—Native of the Malayan Peninsula. Also known under the synonyms of *Pothos giganteus*, *Scindapsus giganteus*, and *Monstera gigantea*. This is a very vigorous-growing parasitic Aroid, with large, pale yellow spathe and spadix. It requires stove temperature.

*Marsdenia Inthurnii*.—Native of British Guiana. This is a curious Asclepiad of only botanical interest.

*Dicentra chrysantha*.—Native of California. Also known under the synonyms of *Dielytra chrysantha*, *Capnorchis chrysantha*, and *Bikulla chrysantha*. This is a rather pretty, hardy border perennial with yellow flowers.

*Chloraea crispa*.—Native of Chile. This is a handsome terrestrial Orchid, with large and showy pure white flowers, for which the synonyms given of *Cymbidium luteum* and *Epipactis flore luteo* seem strangely inappropriate. It was introduced into cultivation in 1901 by Mr. H. J. Elwes, F.R.S.

*Iris (Xiphion) warleyensis*.—Native of Bokhara. This is a most delicately-beautiful bulbous Iris of the section of which *I. orchioides* is the type. It was introduced into cultivation by Mr. Van



SUNDIAL ON THE SOUTH FRONT OF MELBURY CASTLE.

Tubergen of Haarlem, for whom it was collected with the beautiful *I. Bucharica* by Herr Sintenis.

The second part of the *Revue Horticole* for April contains portraits of two most beautiful Gloxinias, named *Mme. Eugene Vallerand*, raised by Messrs. Vallerand, and *Revue Fargeton*, which is claimed by the raisers of that name to be quite a new break in Gloxinias, with a pure white throat and deep rose-coloured border.

The first part of the same periodical for the month of May contains a portrait of the most brilliant and beautiful of all hybrid Gladioli, *G. princeps*, raised by an American florist, Doctor Van Fleet. The *Revue de l'Horticulture Belge* for May contains portraits of two fine hybrid *Cypripediums* named *C. Chapmani* and *C. Ashburtoniae expansum*.

W. E. GUMBLETON.

## NEW AND RARE PLANTS.

### HIPPEASTRUM SNOWDON.

**A**FTER long and persistent cross breeding among Hippeastrums, Mr. C. R. Fielder, gardener to Mrs. Burns, North Myms Park, Hatfield, has managed to produce a white-flowered variety. This was exhibited before the Royal Horticultural Society on the 21st ult., and then received a first-class certificate from the floral committee. A white Hippeastrum has long been the dream of hybridisers among these plants, but so far Snowdon is the first to make its appearance. It is white with a tinge of green at the base, and of large size, the segments are of good form and finely proportioned, giving to the flower a refined appearance that is often wanting in large blooms.

### NARCISSUS GREAT WARLEY.

AMONG many other beautiful Narcissi recently shown by Miss Willmott, Warley Place, Essex, the new trumpet called Great Warley has been conspicuous. It has received a first-class certificate from the Royal Horticultural Society's Narcissus committee and from the Midland Daffodil Society. Narcissus Great Warley is a giant bicolor of the Sir Watkin type, the large, spreading, creamy white perianth and the long yellow wide-mouthed trumpet making a handsome and striking flower. It has a much finer trumpet than Sir Watkin.

### EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this

means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be

addressed to The Editor, 5, Southampton Street, Strand, London.

### BLUE PRIMROSES AND NARCISSUS POETICUS GRANDIFLORUS.

The blue Primroses sent by Mr. George W. Taylor, Pinkiehill, Inveresk, Midlothian, were very pure in colouring, and the Narcissi of much interest. We like to see the Primroses planted against Moss-covered stone, where the colouring is generally very rich and has a suitable background. The late Mr. G. F. Wilson, who originated this race, grew them largely in this way.

### AKEBIA LOBATA.

From Newstead Abbey Gardens, Nottingham, Mr. E. W. Dick writes: "I am sending you (at



petals; *M. conspicua*, white, save for a faint shading of pink, is very charming; *M. Alexandrina* is smaller, more compact, and more deeply coloured; while *M. rustica fl. rubro* is true cup-shaped, not so long in the petals, which are red-purple in colour. Messrs. Waterer also enclose twelve shoots of seedling *Berberis stenophylla*,

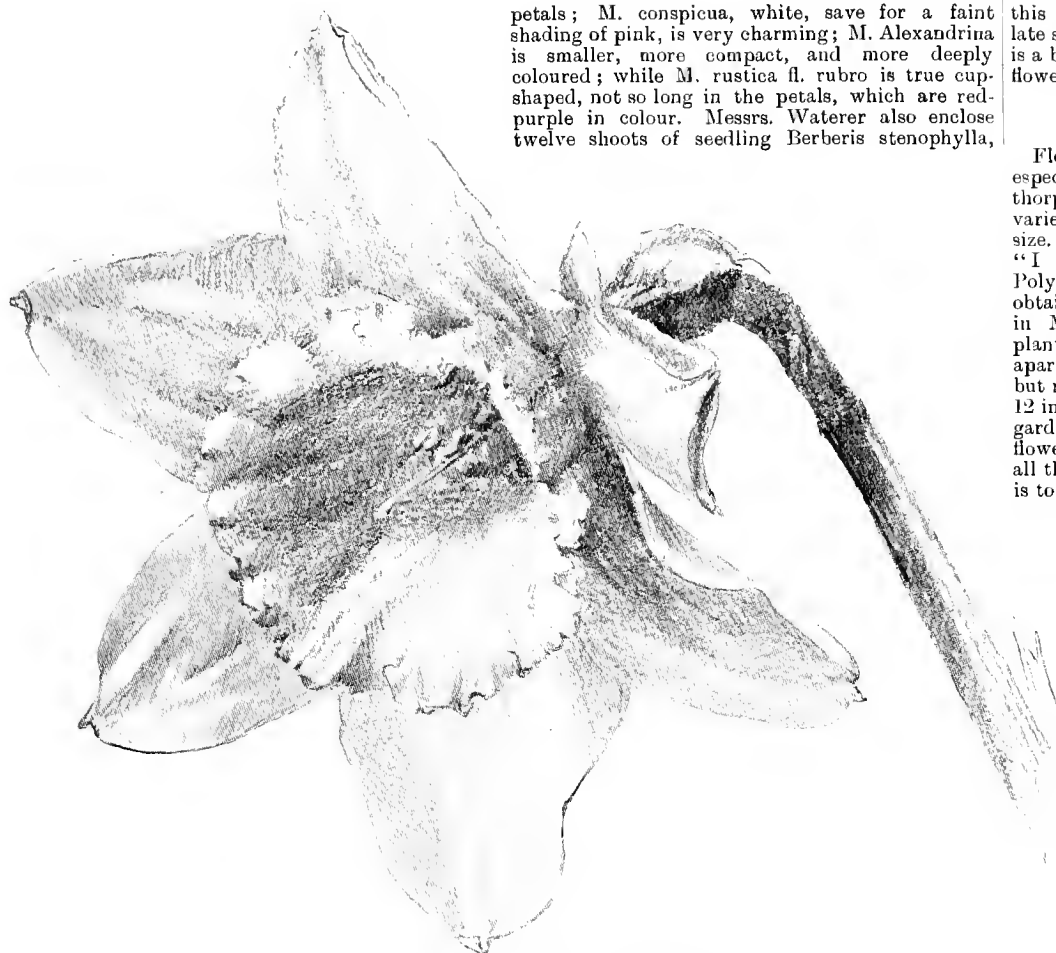
this spring, I suppose on account of the wet and late season. The bed the flowers were picked from is a beautiful sight. If placed in sun in water the flowers open out beautifully."

#### POLYANTHUSES AND PRIMROSES.

Flowers of beautiful colourings, the red shades especially, come from Mr. T. B. Field, Ashwellthorpe Gardens, Norwich. The colours are very varied and pure, and the individual bloom of large size. Our correspondent sends the following note: "I am sending for your table a gathering of Polyanthus and Primroses raised from seed obtained from Mr. Douglas. The seed was sown in May last year. The young plants were planted out early in the autumn, about 12 inches apart, on a west border; the soil is rather heavy, but rich. Many of the plants are now more than 12 inches across, and a perfect mass of bloom. No garden should be without these charming spring flowers, and the best way to get up a collection of all the finest types of Polyanthus and Primroses is to raise them from seed. The work of selection is most interesting. The best should always be kept for the flower garden, and the remainder planted in the woods or wild garden."

#### NARCISSI FROM MESSRS. DICKSONS.

The time of the Narcissus is passing, and we shall probably not receive this year a more interesting collection of Narcissi than those recently sent by Messrs. Dicksons of Chester. *N. poeticus Almira* is a jewel of its race, the flowers are very fragrant, the segments clear and strong, and the cup deep yellow with brilliant orange-scarlet rim. Another beautiful variety is *Barrii Mrs. C. Bowley*, with very intense orange-scarlet cup, a bright and pleasing flower. *Leedsii White Lady* reminds one of the pure colouring of *Elaine* recently sent by Messrs. Dicksons, the pale shade of the segments is set off by a cup of self yellow. *Incomparabilis Gloria Mundi* is a flower of striking beauty, and the variety *Mme. de Graaff* was also in the collection.



NARCISSUS GREAT WARLEY. (Natural size.)

Recently shown by Miss Willmott before the Royal Horticultural Society, and given a first-class certificate.

the request of Miss Webb) a few blooms and leaves of *Akebia lobata*. Fruit from the same plant was sent to you some time last year, and was figured in THE GARDEN. This climber is at the present time one mass of bloom, and has been so for the past three weeks. *A. quinata*, growing on the same wall, shows no sign of flowering."

#### CLIANTHUS PUNICEUS AND C. P. ALBUS.

From Mr. S. W. Fitzherbert, Kingswear, South Devon, we have received flowering sprays of these plants. The blooms of *C. p. puniceus* are brightest red, while those of *C. p. albus* have a faint greenish tinge throughout the white. Mr. Fitzherbert writes that both are now in full bloom on a wall. "You may remember that I sent you flowers of the type at Christmas, since then the plant has never been entirely without blossoms. Now it is a sheet of bright red. I also send a few scapes of *Gladiolus tristis* var. *sulphureus* (the flowers are primrose colour, marked with greenish yellow in the centre of the petals), which has been in bloom for the past fortnight. This form is, I think, very uncommon. It is deliciously scented at night, my clump of fifty flower-spikes then exhales an almost *Magnolia*-like perfume."

#### MAGNOLIAS FROM BAGSHOT.

From Messrs. John Waterer and Sons, Limited, Bagshot, we have received a splendid gathering of blooms of the deciduous *Magnolias*. Finest of all, perhaps, is *M. Lennei*, most beautiful in bud on account of the rich colouring of the exterior of the petals, a rich red-purple, inside they are cream-coloured, the bud is large and compact, and the petals firm and thick, a very handsome species; *M. soulangeana* has smaller, more fragile flowers, white, tinged with purple at the base of the

each cut from a different plant. They are very beautiful, festoons of yellow, orange, and red, for several shades of these colours are represented by the sprays sent, showing how greatly seedling plants vary.

#### IRIS SUSIANA.

Mr. James Blackmore, Chalfont Grange Gardens, Gerard's Cross, sends a flower of this *Iris*, which has been grown in a cool greenhouse, and has flowered for the second time. We are always pleased to see this noble kind, but it is quite happy outdoors in many gardens.

#### ABNORMAL TULIP LEAF GROWTH.

Mr. Reginald Rankin, Ashmead, Dursley, sends a remarkable Tulip leaf with the following note: "Here-with the leaf of a May-flowering Tulip from the open border. It appears to me to be unusually large; when measured freshly plucked it was 18 $\frac{3}{4}$  inches long and 8 $\frac{1}{2}$  inches wide." Our correspondent then asks "whether any readers of THE GARDEN consider this out of the common?" We should say "Yes" decidedly, but a note from others will be welcome.

#### POPPY ANEMONE.

Mr. Ferrington, Bryn Bella, St. Asaph, sends a wonderful assortment of flowers of *St. Brigid Anemones* raised from seed and blooming for the first time. Our correspondent says: "They have not been so early or so fine



THE NEW WHITE HIPPEASTRUM SNOWDON.  
(Reduced about one-third from natural size.)

## NARCISSI AND PRIMULA INTERMEDIA.

Mr. J. W. Gaunt, Summerfield, Bramley, Leeds, writes: "I send you a few flowers for your table. The Narcissi are seedlings of my own. I have other and, I think, better varieties, but they are yet unopened, so that I cannot send them at the same time. I notice the best varieties increase very slowly. It is about twenty years since I first commenced to grow seedling Narcissi, and in one or two cases I have not more than two bulbs yet, although I have dozens of others sown at the same time. They are all crosses of Poeticus, mostly Poetorum (pollen parent) and various seed parentage, *N. triandrus*, *N. Corbularia*, and others. I have many seedlings yet unbloomed of various ages. I may say that the last of the first batch only bloomed last year, so that it is either very slow work or I have a lot to learn, which is more than likely. I wish I knew if there was any safe way of ensuring quicker increase of the bulbs, and I should esteem it a great favour if you could tell me how I could get to know. I think there must be some such means known to the Daffodil experts. Also, I send you a plant of a rather pretty *Auricula P. intermedia*, which grows pretty freely here, and is, I consider, a beautiful thing in its way. It was raised about a generation ago by one Fuller of Headingley, near Leeds, and, I believe, was put into the hands of William Bull of Chelsea. My stock came from the raiser through a mutual friend. I grew it in the greenhouse, and so did he for years, when, seeing it was dying, I put it outside, when it immediately began to thrive. I have many seedlings from it, but none, I think, quite so good in every respect as the original."

Mr. Gaunt sends a series of very interesting and beautiful seedlings, and the fragrant little *Auricula* reminds us of the value of many species and hybrids for the rock garden in spring. We are sure Mr. Engleheart or some keen *Narcissus* hybridist will help our correspondent.

## RHODODENDRONS FROM COUNTY DONEGAL.

Mr. H. C. Hart, Carrablagh, Portsalon, County Donegal, sends flowers of rare and interesting *Rhododendrons*, including an unnamed hybrid, of which *R. grande* is evidently one of the parents and *R. niveum* probably the other. Mr. Hart also sends *R. lanata*, a frail flower, and one of the rarest in cultivation, and has not flowered before in this interesting garden. *R. campylocarpum* does not open freely, but it blooms freely at Carrablagh. Also in this gathering were a white *R. arboreum* and *R. campanulatum* and a Thomson hybrid.

## CAMELLIA FLOWER FROM THE OPEN.

Mr. Christie, Framingham, Norwich, sends a *Camellia* flower gathered from a plant growing in the open border. Notes about Mr. Christie's *Camellias* appeared in the last volume of *THE GARDEN* (page 440). The flower sent was as fine as anything one could expect in a greenhouse or conservatory. It is not so generally known as it should be that the *Camellia* is a good, hardy flowering shrub. In *THE GARDEN*, March 30, 1901 (page 227), Mr. Scrase Dickins gives some interesting information about it. This is as follows: "The best *Camellias* for planting out of doors in the open air are those which bloom late and start late into growth, such, for instance, as *Chandleri elegans* or *Anemoneflora*; the varieties with broad, roundish leaves appear to grow in more robust fashion than those having narrow pointed ones with a serrated edge, though the latter will sometimes make very compact bushes. It is possible that the sorts with dark red flowers are hardier than those with pink. The old double white seems to stand the cold well enough, but it hides its flowers rather too much among the foliage to make any effective display of them, though in this way they are often secured from frost or bad weather and made serviceable for cutting. To train against a trellis or wall *Donckelaari* is very good, and, next to *reticulata*, one of the most beautiful when well grown, blooming so freely.

*Camellias* appear to grow in almost any aspect, but are naturally sun-lovers, and though preferring peat, they will do in most other soils, provided that there is no lime present. The points of the young roots are very sensitive to drought, so should be protected until well established by light mulching or a surrounding growth, with the risk of being withered up by a fierce sun striking the ground in which they are starting. Unlike many other shrubs, they seem to have the advantage of being exempt from the destructive attention of rabbits; perhaps when snow is on the ground they might be barked, but I do not remember to have noticed it. Apart from the question of varieties, it may be well to draw attention to the fact that only strong, healthy plants should be turned out, for sickly specimens from a greenhouse or conservatory are very slow indeed to make a start, and will remain sometimes for an astonishing number of years in almost the same pitiable state."

## ORCHIDS.

## ORCHIDS AT THE GRANGE, SOUTHGATE.

ALTHOUGH at the present season Orchids are the greatest attraction in the gardens at The Grange, Southgate (the residence of J. Bradshaw, Esq.), they are by no means the sole feature of interest there. One rarely sees a small garden that is made the most of, but we have no hesitation in saying that this is an exception. We do not know the extent, but there cannot be more than two or two and a half acres of ground altogether, yet one fails to see that any interesting phase of gardening has been omitted. There are herbaceous borders, boldly planned and carefully planted, a rock garden, bulb borders, a Rose garden, shrubberies, fruit and vegetable garden, &c., as well as a charming bit of lawn, without which no English garden is considered complete. From the centre of the south side of the house one looks down a grass path, the beds on either side filled with *Delphiniums*, *Pentstemons*, &c., and immediately behind them two hedges of Rose

Crimson Rambler, even now recognisable by their peculiarly rich green foliage. When the borders are gay with plants in flower and the Rambler Rose in full blossom it is not difficult to imagine that the outlook from the house down this green-pathed vista must be unusually attractive. Even now the herbaceous borders are full of interest. Crown Imperials, *Doronicums*, *Arabis*, &c., are in bloom, and the variously tinted growths of other plants—from the red-brown of the *Pæonies* to the bright green of *Phloxes* and the darker hues of *Lilies* or *Aconites*—give promise of what is to come. The fruit and kitchen garden is bright with Apple, Pear, Plum, and Cherry trees in flower; arches span the walks at intervals, and fruit trees are trained over them. The shoots are now laden with blossom, so that in what is usually a prosaic and unattractive part of a garden beauty and usefulness are cleverly associated.

The most interesting plants in flower among the Orchids are shown in the two accompanying illustrations—*Lycaste Skinneri* and *Odontoglossum crispum*. Mr. Bradshaw has a splendid collection of *Lycaste Skinneri*, and some of the varieties are very beautiful. They have been much admired when shown before the Royal Horticultural Society on several occasions. *Odontoglossum crispum* is represented by many valuable varieties, both spotted and unspotted, and the illustration will give some idea of the beautiful sight they now are. There are several thousands of plants in the house, and there is quite a miniature forest of flower-spikes ready to burst into bloom and continue the display for weeks to come. Mr. G. Whitelegge, Mr. Bradshaw's gardener, is a most successful Orchid grower. The pseudo-bulbs of some of the *Odontoglossums* are remarkable for their vigour, and are producing splendid racemes of flower. Among other Orchids in bloom were *Lycaste gigantea*, with large, drooping, olive-green sepals and petals and purplish, yellow margined lip; *Cattleya intermedia alba*, *Cymbidiums*, *Cattleya Mendelii*, *Cattleya citrina*, and others. All the Orchids are the picture of health, and evidently fully enjoy the conditions under which they are grown.



ODONTOGLOSSUM CRISPUM IN THE GRANGE GARDENS, SOUTHGATE.

## WORK FOR THE WEEK.

## CYPRIPIEDIUM NIVEUM.

THIS beautiful, yet with many a very difficult Orchid to grow, has once again been imported, providing an opportunity to replenish stock. When the plants are received place them for a few days in a somewhat cool and moist shady house, and on a bed of good sphagnum moss. The roots will soon begin to recover, when potting may be proceeded with, using a compost of two-thirds good loam and one-third leaf-soil, with a liberal sprinkling of small crocks, old mortar rubble, and coarse sand. Pots made for suspending are the most suitable receptacles, as depth is more important than width. After all the dead roots and leaves have been cut away, place the live roots so that they go straight down and build up the compost around them, intermixing pieces of soft red brick about the size of a Walnut. I consider this important. We find the roots naturally take a straight downward course, so by building up, so that when finished there are practically rows of compost and rows of soft brick, the roots strike down freely between. We find this species grows very freely when treated thus, while it deteriorates rapidly when grown on the principle of keeping the plants on the dry side. We now have flowers practically all the year. Suspend the plants in the warmest and shadiest part of the Cattleya house.

C. CONCOLOR, C. BELLATULUM, AND C. GODEFROYÆ all succeed if treated in the same way. I am convinced that many failures have accrued from keeping this section of *Cypripedium* much too dry, and by potting in such a way that the roots are prevented from going in the direction they prefer. We do not report more than is absolutely necessary. From time to time it is essential to divide the plants; the divisions soon start growing, and the stock is thus increased and kept vigorous.

## LYCASTE SKINNERI.

This favourite species is now commencing to grow, and potting may be done. Use a compost of two parts fibrous loam to one part of good leaf-soil, adding some small crocks and coarse sand. Afford a fair drainage and pot rather firmly, keeping the compost low enough to allow of a top-dressing of chopped sphagnum. A position in the coolest part of the intermediate house is suitable, but shade from strong sunshine. *L. aromatica*, *L. Deppei*, *L. candida*, *L. leucantha*, and *L. cruenta* may be treated in the same way, potting when the new growths are about 2 inches high.

BIFRENARIA (LYCASTE) HARRISONIÆ has begun to grow now the flowering season is over, so if repotting is necessary it may now be done. This Orchid thrives best when suspended. A compost of fibrous peat two parts and one part each of leaf-soil and chopped sphagnum is suitable. Give a good drainage of rhizomes. Place in a light position in the intermediate house, watering them freely when growth is active, and syringing them overhead on bright days. W. P. BOUND.

*Gatton Park Gardens, Reigate.*

## GARDENING OF THE WEEK.

## FLOWER GARDEN.

## SPRING BEDDING.

**B**EFORE proceeding to lift the bulbs which have finished flowering, it is advisable first to closely mow the grass around the beds and cut or clip the edges. Any Jonquils, Narcissi, &c., which are likely to be of use for next year should be carefully planted in rows in a cool spot where they will not mature too rapidly. Keep each sort separate and correctly labelled. The weaker bulbs may be planted straightway in the wild garden or closely in rows in the reserve quarter, where they will furnish a fair amount of cut flowers. The warm dry days have hastened the flowering period of

## WALLFLOWERS,

which in many cases may now be cleared away. These are not worth saving; far better results are



SOME OF THE FINEST FORMS OF LYCASTE SKINNERI IN MR. J. BRADSHAW'S COLLECTION.

obtained from the use of seedling plants. Such as Arabis, Aubrietia, Myosotis, Polyanthus, and the single and double Primroses, when lifted, should be retained in the required quantities for use next year. Divide and plant in rows not less than 9 inches apart, so as to allow ample room for the hoe to be worked during the summer. After planting a copious watering will be necessary.

## PLANTING.

Except in some highly favoured localities it is too soon to plant safely the bulk of summer bedding plants. But a start may well be made with some of the hardier things, such as Fuchsias, which have been well hardened off, Cannas, and Dahlias from the stove which have started naturally. If these roots are at all dry they should first be immersed in tepid water. *Calceolarias* and *Violas* recently planted will now require a good watering. An occasional light sprinkling at three or four o'clock on an unusually hot day will be beneficial.

## LAWNS.

It has been a favourable spring for grass seeds. The seedlings are now growing freely, and will soon require cutting. All perennial weeds must be carefully removed with a Daisy weeder. Unless they are very obtrusive the annual weeds may remain, as after the first cutting most of them will die. Well roll the grass with a fairly heavy roller, and when cutting is necessary it should be done, for the first time at least, with a sharp-edged scythe. If the lawn-mower is used it is very liable to pull up the grass by the roots.

## AZALEA INDICA.

Any plants of *Azalea indica*, *A. amœna*, and their varieties which are of a poor form, or for any reason are not required for future use in the greenhouse, should, after the fresh growth is made, be planted out of doors. Although rarely seen growing in the open, these *Azaleas* are really quite hardy, and, as they do not often flower before the end of May, there is but little danger of frosts spoiling their beauty. They are not particular as to soil; anything which grows *Rhododendrons* will also suit the *Azaleas*. Plant firmly, and keep the plant a trifle higher than the surrounding soil.

*Pencarrow Gardens, Bodmin.* A. C. BARTLETT.

## KITCHEN GARDEN.

## ASPARAGUS.

THIS vegetable is now plentiful, and should be inspected every morning, cutting all heads that are

4 inches to 6 inches in length. Although it is better cooked the same day as gathered, it may be kept fairly good if tied in bundles and placed in 1 inch or 2 inches of water in a cool place. When cutting do not thrust the knife deeply into the ground or you may cut other growths not yet above the soil. Give an application of manure every ten days. If the plants are very strong the shoots may be cut down for some time; but if weak leave some of the growths to encourage root action. Seedlings sown in heat early in the year may now be planted out on specially prepared beds. These should be slightly raised. Choose a damp day for planting, and if dry weather sets in see that the plants are given a liberal supply of water.

## SALADS.

To keep going a regular supply of salads Lettuce should be sown every third week, a border being reserved for it. Radishes should be sown every fortnight in a cool border, a northern aspect being best in the summer months. Sow the Turnip-rooted varieties during May. They do not stand drought so well as the deeper-rooted sorts, which may be used, therefore, for summer sowings. To have perfect eating Radishes they must be grown rapidly. Abundant and frequent waterings are essential; the best time for this is the evening. In very dry weather freshly-sown seeds may be covered with a damp mat till they have germinated. Endive and Mustard and Cress may now be grown under a north wall.

## GENERAL REMARKS.

If seeds of early Celery were sown as advised in an earlier calendar and thoroughly hardened off, the seedlings will now be ready for planting. Water the plants well before removing them from the boxes. If small suckers appear round the edge of the plants remove these. Open-air Tomatoes now in 3-inch pots ought to have another shift, this time into 6-inch pots. They may be replaced in heat till growth again commences, in order to have the plants ready for planting out at the end of the month. Pot on seedling Marrow plants, using loam and a little leaf-soil. Keep them near the glass in a cool house. The bed in which the Marrows are planted may now be got ready. Broccoli heads are plentiful, and if it is necessary to prolong the supply they may be lifted and placed in a cool shady position. The ground may be got ready for another crop. Where a number of varieties of this vegetable are grown a note should be made of those

that really do well, and the seed procured from a reliable source. Parsnips sown in March will shortly require their first thinning. This should not be done severely in case accidents happen. A little soot or bone-meal may be sprinkled previous to hoeing between the rows. THOMAS HAY.  
*Hopetown House Gardens, Queensferry, N. B.*

## INDOOR GARDEN.

### THE FERNERY.

DAY by day as the season advances the fernery becomes more and more attractive. The various Ferns are continually sending up new fronds, some of which are a beautiful green in colour, while others again are delicately tinted. Beyond advising that the atmosphere of the house should be kept continually humid, and that water in abundance be given to the roots, with a little stimulant occasionally, nothing further need be said in respect to the robust-growing sorts, but every care and attention should be given to the delicate ones. *Adiantum gracillimum*, *A. farleyense*, and *A. Williamsii* should be given elevated positions, as then there will be less likelihood of moisture hanging about the young fronds, and causing, as it frequently does, the young and delicate pinnae to damp, and finally to rot away. Clay's Fertilizer in moderation may with advantage be applied to the roots of all Ferns, and the liquid made from burnt stick ashes, together with guano and soot-water, is most beneficial.

### IN THE GREENHOUSE.

Generally this structure contains a varied collection of plants, all of which do not require the same treatment, for while many of them may be in flower others are making growth, and a few also may be going, as it were, to rest. Those in flower ought at this season to be given a shady and airy position, and care in watering should be exercised. Among the plants commencing to grow some will require repotting. Much disturbance of the roots when growth is well advanced would prove a serious matter. Avoid the too frequent mistake that is made of applying stimulants to the roots which they at the time are not prepared to assimilate. Manures may with advantage be applied to those that are active in both root and top growth. Heavily syringing plants has not always the effect it is intended to have, and it is often better, especially during cold weather, to create and sustain humidity by syringing water about the stages and paths and among the pots. Those plants that show signs of going to rest should be removed to cool and well-ventilated quarters. This can be done by affording them the conditions stated, but at the same time sufficient water to maintain them in a healthy condition must be given without unduly exciting the plants to make a premature effort to grow.

J. P. LEADBETTER.

*Trunby Croft Gardens, Hull.*

## FRUIT GARDEN.

### POT VINES.

THOSE which were started in November are now bearing ripe fruit, and clear water only must be given them. Keep up a constant circulation of drier and cooler air than before. This house should be thoroughly cleaned as soon as the Grapes are cut to make room for Tomatoes or other plants. Pot Vines intended for fruiting next year are growing freely, and soon they must be given liberal supplies of warm weak liquid manure water. Keep the atmosphere of the house moist by frequent dampings, and use the syringe freely after closing. The laterals must be kept closely stopped, and the points pinched out a few buds above the required length, when the canes will soon increase in thickness and the buds become prominent.

### EARLY PERMANENT VINES.

Grapes on Vines started in December are now approaching ripeness. If the border was well watered and mulched these Vines will not require more water until the Grapes are cut. If the Grapes are kept hanging long and the Vines need water, choose a fine dry day for the work. A

temperature of 60° will be suitable at night. Decrease the moisture with a freer circulation of warm air. Endeavour to keep red spider in check, and as soon as the Grapes are cut thoroughly syringe and clean the foliage, and give the border a good watering with liquid manure or a sprinkling of Vine manure.

### SUCCESSION VINES.

These Vines will carry and mature heavier crops of fruit than early ones. Continue to stop the laterals, and tie down the permanent shoots. Tying down is best deferred until after the bunches have flowered. Do not stop the laterals during the time the Vines are in flower. Give frequent applications of liquid manure and occasional sprinklings of Thompson's Vine Manure. Afterwards mulch the border with decayed farmyard manure. Remove surplus bunches, and thin all free-setting varieties as soon as they are out of bloom. Muscats, Lady Downe's Seedling, and similar varieties are best left until it can be seen which berries are taking the lead. Tie up the shoulders of early ones, and otherwise regulate the bunches before they commence to colour. Some gardeners never shade their Vines; I always lightly shade Muscats, Lady Downe's, and Gros Colmar, and find it beneficial, especially if the Vines are weak.

### PLANTING YOUNG VINES.

Now is a good time to plant out young Vines raised from eyes in February. Do not disturb the roots when planting. Give a moderate watering with tepid water when finished, and keep a rather close atmosphere for a time. Shade from bright sun until they are well established. Afterwards encourage them to make sturdy growth by early ventilation.

*Impney Gardens, Droitwich.*

F. JORDAN.

## CHRYSANTHEMUMS.

### TRAINED SPECIMENS.

THOUGH these are not so much grown as they were a few years ago, owing a great deal, no doubt, to the poor encouragement offered by most of the Chrysanthemum societies, there is no question that when at their best they form one of the most attractive features at any exhibition. Unquestionably, as in growing most specimen plants, a lot of work, independent of the cost of conveying them to and from the shows, is entailed, and unless more substantial prizes are offered than is generally the case we cannot hope to see them in such fine condition as they were in years gone by. During the palmy days of the Kingston shows, which were then generally admitted to be second to none in the country, trained specimens formed one of the most important features, which included dwarf-trained, large-flowered Pompons, pyramids, and standards, all being presented in the best possible condition, and competition was very keen, good substantial prizes being then an inducement to grow them. Many of the newer Japanese lend themselves admirably to such treatment owing to the improvement in their habit and the large range of colours to select from. As I have often pointed out, to be successful the earlier the foundation of the plants is formed in the season the better will be the after results. The chief points to aim at are good foliage, fine blooms, and suitable training.

The barbarous method of tying down the growths in a flat, unnatural way must be condemned, consequently the formation of the plants should be made early, after which allow the shoots to be regulated and induce them to assume as pleasing a form as possible. Medium-sized, well-finished specimens are much to be preferred to those of larger proportions, which lack high finish, and endeavour to produce these in the smallest-sized pot possible. If due regard is paid to watering and feeding, it is, indeed, surprising what little pot room these require. In addition to such plants gaining high distinction in competition, they are much more serviceable and beautiful for home decoration.

The plants should now be encouraged to make a free, sturdy growth in a suitable temperature, a light pit, with a flow and return hot-water pipe running through it, being most suitable. The young growths should be stopped at every third or

fourth joint till the requisite number of growths are assured. Carefully tie down the shoots, fumigate frequently, syringe twice daily in fine weather air freely on all favourable occasions, and pot on as required.

### STANDARDS.

These are very beautiful, especially the Pompons, Pompon Anemones, and singles, when grown much in the same way as a well-balanced standard Rose, and are well worthy of cultivation for the conservatory. These should be run up to the required height in an ordinary greenhouse, and stopped till a fair number of shoots are ensured. There are many ways of treating the head by securing the shoots in a safe position, but probably the best is to fix a stout green painted stake, to which should be fixed the cross pieces, and then a medium-sized green painted wire hoop, to which the growths should be trained, making them proof against wind. The plants should be arranged and plunged in a sheltered but open, sunny position during summer, and placed under glass in good time in the autumn to prevent destruction by gales. Strictly avoid tying the flowers too severely to the framework, otherwise the plants will lack that pleasing effect so much to be desired.

E. BECKETT.

*Aldenham House Gardens, Elstree.*

## NURSERY GARDENS.

### THE FLORAL FARMS, WISBECH.

IMAGINE a farm of some 500 acres devoted to the culture of bulbs and all sorts of hardy flowers as well as fruit trees; imagine also some thirty acres of Narcissi, half a million early flowering Tulips, large quantities of Hyacinths all in full bloom, some 100,000 May-flowering Tulips and Darwins in bud, the long double rows of standard Plum trees a mass of snow-white blossom, and the ground surface beneath them covered with sheets of rich blue Musk Hyacinth, the lighter blue of Forget-me-nots, multi-coloured Polyanthus, drifts of Rock Cresses, and colonies of Fritillarias, and you will have a very fair idea of the appearance in late April of the floral farms of Messrs. R. H. Bath, Limited, Wisbech, which are situated in the three counties of Norfolk, Cambridgeshire, and Lincolnshire. You will not, it is true, be able justly to conjure up the scene as it really is, for the masses of rich and brilliant colouring provided by the Tulips, or the more graceful effect of the large breadths of Daffodils, the flowers daintily nodding and the leaves gently swaying to every breeze that blows across the eight or nine miles of flat land to the Wash must be seen to be appreciated. One can feel the invigorating salt breezes as they come across the broad expanse of

### FIELDS OF FLOWERS,

and the plants evidently enjoy them, too, if the healthy vigour of foliage and stout flowering-stems speak for anything. It is a glorious and suggestive picture that stretches before the onlooker; acres and acres of English fields, whose surface is a carpet of such rich and varied colouring that few who have not seen a flower farm, and especially a bulb farm, would think possible in the British Isles, can be described by no other word than glorious, while the suggestive character of this scene lies in the fact that it proves that bulb farming in England can be made to pay, for it is no secret that there is money in these acres of lovely flowers. In fact, one of the largest bulb growers in Holland, when on a visit to Wisbech recently, said, with reference to a bed of a certain Tulip, "They are finer than we can grow in Holland." Such a remark from a grower of Dutch bulbs, which have a world-wide reputation, shows that the very finest bulbs can be grown in this country. Perhaps the most charming bit that we saw when making a tour of the farms was a five-acre

FIELD OF THE POET'S NARCISSUS, the flowers in the full flush of beauty. This Narcissus could hardly be better named, for surely

there never was a flower of more grace or refined beauty, and small wonder that poets should have waxed enthusiastic about it. Another expanse of Narcissi, ten acres in all, comprising such varieties as Emperor, Golden Spur, Horsfieldii, Empress, and Sir Watkin was also a striking sight. It was, in fact, an animate sea, a sea of nodding gold and waving green. To describe other large masses of Mme. de Graaff, Weardale Perfection, Mrs. Walter Ware, Glory of Leiden, W. P. Milner (wonderfully free flowering), as well as the Polyanthus Narcissi, of which Her Majesty and Bazleman Major were the best, would be wearying repetition, so mention of them must suffice. Besides all these acres of Daffodils in the open some of the orchards and fruit plantations were full of them. They made panels of yellow and white between the long rows of Apples, Plums, and Cherries, and furnished an admirable illustration of beauty and usefulness going hand in hand. Charming though the Daffodils are, one is irresistibly attracted sooner or later by the

#### GORGEOUS COLOURING OF THE TULIPS,

so rich and brilliant as to appear foreign, out of place in this country of ours—almost a breath of the tropics at home.

For intense gorgeous colours there is nothing among hardy flowers to equal the Tulip; among selfs there are purest white, richest scarlet, brightest yellow, deepest purple, while the fancies are indescribable. Some of the most striking

pointed out to us among the vast array are the following: Primrose Queen, true primrose colour; Golden Lion, intense orange scarlet, edged gold; Moucheron, deep crimson; Suaveolens, rich orange scarlet; Greigii, orange scarlet; Premier Gladstone, double, cerise; Raphael, the finest double pink; Toreador, crimson outside, orange within, double; Couleur de Cardinal, which is self-descriptive; White Joost van Vondel, the finest white; Scarlet Duc van Thol, small brilliant scarlet; Imperator rubrorum, crimson, double; Yellow Prince; Retroflexa, a yellow form of Elegans. Leaving the Tulips one passes in succession some three acres of Peonies, whose rich red-brown shoots are well through the ground;

#### BEDS OF EMPRESS PANSIES,

the flowers 2 inches to 3 inches across, and their colouring so varied and beautiful as to render futile any attempt at description. We may say, however, that the yellow, purple, and marone varieties were really magnificent; beds of seedling Polyanthuses and Primroses of such form and variety of colour as surely to satisfy the most fastidious. Much finer plants are obtained from seed than by division; continually dividing them up soon weakens them. The gold-laced Polyanthuses were perfectly marked and of lovely colouring. Double white Primroses, sheets of Myosotis Eliza Fonrobert (pale blue), and M. Fairy Eyes (deeper blue), to say nothing of Muscari, Fritillaria,

and other plants in bloom were passed on the way to the

#### ONE HUNDRED THOUSAND VIOLETS,

some in frames, many out of doors, and most of them raised from cuttings last autumn. Marie Louise, Comte de Brazza, and Lady Hume Campbell are the best doubles, while among the singles are Amiral Avellan, Comtesse Edmond de Tertre, La France, and Princess of Wales. The plants will be ready for distribution next September. There are several acres of Pyrethrums and garden Pansies, both of which seem to be popular flowers. We were shown a field of from 8,000 to 10,000 standard Roses (among which we were able to distinguish W. A. Richardson growing very strongly, and all were on splendid stocks), as well as seven acres of

#### DWARF ROSES.

It would be hopeless to try and describe all that we saw, however, within the limits of one article. We will remain content with a passing mention of the Strawberry fields planted with the varieties Sir Joseph Paxton, Royal Sovereign, and The Laxton; a plantation of a new Raspberry yet unnamed, but which promises in the near future to make a name for itself; Apple Emmeth Early, the best local variety, and largely grown for market in this neighbourhood. In the houses were hundreds, we might safely say thousands, of Carnations, Malmaison, tree or winter-flowering and border varieties (the Malmaisons were especially fine),



AMONG THE DAFFODILS IN THE NURSERIES OF MESSRS. R. H. BATH, LIMITED, WISBECH.

Dahlia, Arum Lilies, Roses in pots, Ampelopsis, and Clematis, as well as a large number of bedding plants. It would be difficult to find a nursery that would better repay a visit than the Wisbech Floral Farms, for apart from the peculiar interest that attaches to them as being English, they possess, as we have endeavoured to show, many other noteworthy features.

H. H. T.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

ACRADENIA FRANKLINIÆ, Agapetes buxifolia, Boronia polygalifolia, Brachysema Drummondii, Brunfelsia eximia, B. macrantha, Calceolaria violacea, Calpurnia aurea, Cassia australis, Cestrum Newellii, Chorizema ilicifolium, Clematis indivisa, Erica urceolaris, Eutaxia myrtifolia, Grevillea sericea, G. thelemanniana, Hardenbergia comptoniana, Hibbertia amplexicaulis, Illicium verum, Impatiens Oliveri, Kennedya rubicunda, Leptospermum scoparium, Lonicera affinis, Lysichitum camtschaticense, Mæleania insignis, Mangifera iodica, Olearia stellulata, Polygala myrtifolia, Prostanthera denticulata, P. nivea, Pultenæa flexilis, Rhododendron Beauty of Tremough, R. cilicalyx, R. Falconeri, R. formosum, R. forsterianum, R. griffithianum, R. kewense, R. linearifolium, R. serpyllifolium, and Strelitzia Reginae.

#### Palm House.

Napoleona imperialis and Petrea arborea.

#### Water Lily House.

Aristolochia saccata.

#### Range.

Albica minor, Asystasia scandens, Bignonia tweediana, Clerodendron myrmecophilum, Ixora salicifolia, Kleinia fulgens, Lachenalia pustulata, Medinilla magnifica, Miconia hookeriana, Ornithogalum lacteum, O. thyrsoides, O. steospermum moniliferum, Oxalis Ortgiesii, Physostelma Wallichii, Tritonia speciosa, and Utricularia montana.

#### Succulent House.

Cereus flagelliformis, C. Mallisoni, Epiphyllum Gærtneri, and Gasteria in variety.

#### Orchid Houses.

Acanthophippium sylhetense, Ansellia africana, A. humilis, Bulbophyllum fulcum, B. odoratissimum, B. quadrifarium, Calanthe discolor, Cirrhopetalum picturatum, Cymbidium ballianum, Cypripedium lawrenceanum, Cyrtopodium palmifrons, C. punctatum, Dendrobium cretaceum, D. devonianum, D. hercoglossum, D. recundum, D. thyrsoflorum, D. transparent, D. undulatum, Epidendrum ciliare var. cuspidatum, E. glumaceum, Eria extinctoria, Eulophia lurida, Lycaste crinita, Masdevallia bella, M. Chimæra var. backhouseana, M. houteana, M. radiosa, M. veitchiana, M. vespertilis, and others, Maxillaria flava, M. luteoalba, Microstylis Scottii, Odontoglossum citrosimum, O. (Ectedi), Oncidium altissimum, O. leucophilum, O. sphacelatum, Ornithocephalus grandiflorus, Pelexia maculata, Physosiphon Moorei, Rodriguezia fragrans, Selenipedium titanum, Scuticaria Hadweni, and Vanda teres.

#### Greenhouse.

Arctotis aspera, Astilbe japonica, Auricula Queen Alexandra, Corydalis thalictrifolia, Crowea angustifolia, Dicentra spectabilis, Erica propendens, Helicbrysum humile var. purpureum, Lathyrus pubescens, Schizanthus pinnatus, Scutellaria mocciniana, Senecio kewensis, S. Moorei, S. cantabriggensis, Tetratheca pilosa, and Veronica diosmifolia.

#### Alpine House.

Androsace lactea, A. Laggeri, Anemone vernalis, Armeria majellensis, Auriculas in variety, Claytonia caroliniana, Coptis trifolia, Dodecatheon ellipticum, D. Jeffreyi var. alpinum, D. pauciflorum, Draba fadnizensis, Erigeron trifidus, Erinus alpinus var. glabratus, Erysimum kotschy-

anum, E. rupestre, Muscari paradoxum, Ornithogalum armeniacum var., Phlox divaricata, Primula Fortunei, P. frondosa, Pinguicula grandiflora, Ranunculus amplexicaulis, Romanzoffia sitchensis, Saxifraga lingulata var. lantoscana, S. muscoides var. atropurpurea, Tellima parviflora, and other things.

#### Rock Garden.

Anemone trifolia, Armeria juncea, Cardamine pinnata, Chrysanthemum caucasicum, Doronicum Columnæ, Lathyrus cyaneus, L. vernus, Macrotomia echioides, Matricaria Tehihatchewii, Morisia hypogæa, Primula sub-auriculata var. hirsuta and others, Rhodothamnus Chamæcistus, Saxifraga Wallacei, Stylophorum diphyllum, Trillium grandiflorum, T. sessile, Tulipa sylvestris, T. wilsoniana, and Valeriana rotundiloba.

#### Bulb Borders and Iris Garden.

Fritillaria acropetala, F. acutiloba, F. armena, F. aurea, F. latifolia, F. lusitanica, F. Meleagris, F. pallidiflora, F. pontica, F. tenella, Muscari, Tulipa and Narcissus (numerous species and varieties), and Uvularia grandiflora.

#### Arboretum.

Acers in variety, Cydonia japonica, C. Maulei, C. sinensis (on wall), Cytisus biflorus, C. præcox, Erica arborea, E. australis, E. lusitanica, E. mediterranea and varieties, Magnolia conspicua and hybrids, M. obovata, Prunus (many species), Pyrus (many species), Rhododendron Luscombei, R. racemosum, R. rubiginosum and many other species and varieties, Ribes aureum, R. pinetorum and others, Spiræa arguta, S. Thunbergii, and a large number of other things.

## THE ROSE GARDEN.

### ROSE DOROTHY PERKINS.

I CANNOT refrain from sending you a short note about the way this beautiful Rose has grown in the short time it has been planted here. I planted two trees on the top of a retaining wall on April 14, 1903, out of pots, and they flowered beautifully from the end of June to the end of November and made shoots 15 feet long. Buds are now showing the whole length. On some of the weaker shoots I made a slight under cut, just the same as in layering Carnations, and pegged them down in August. They rooted very freely. Some of these were taken off and planted in the autumn, having made good strong plants which will flower well this year; very different from plants obtained from cuttings or buds in the same time, and with less trouble. I think Dorothy Perkins has a very great future; the flower is a beautiful pink colour, and the foliage is charming. When seen growing on a low wall it is most beautiful.

Berkshire.

J. S.

### ROSE MARIE VAN HOUTTE.

I THINK this is one of the best Roses for training on a south wall, where rampant growth is not required. Here it is growing on the house, and at the present time several flowers are open and hundreds of buds are showing colour, and with the bronze foliage the effect is very good.

Berkshire.

J. S.

### A NEW CLIMBING ROSE.

A BEAUTIFUL fast-growing Rose for the roof of the Rose house or conservatory is Mme. Jules Gravereaux. No better climbing Rose has appeared for some time; the flower is quite good enough for exhibition, it has the substance, form, and colour of a show bloom. The colour is buff, tinted peach, form high centred with reflexed petals. The centre is somewhat wanting in finish, but no one will condemn the Rose on that account, the variety being so good in all other ways. It must make a fine standard, as it has a large spreading head, such as we seem to require on our standard Roses, especially when they are isolated. Mme. Jules Gravereaux is the result of a cross between Rêve

d'Or and Vicountess Folkestone. I do not know whether this is correct or not, anyhow there is not a suspicion of the Rêve d'Or about it except in growth. The Rose seems to partake more of the habit of Gloire de Dijon, and apparently quite as free.

P.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### WILD FLOWERS FROM SEED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the article on the above subject of April 30 I need hardly say how heartily I sympathise with any suggestion calculated to reduce the depletion of our native flowers and Ferns by injudicious collectors, who root them up wholesale and thus threaten to exterminate them. With regard, however, to our native Ferns it seems to me that a better remedy for their indiscriminate collection would be an extension of the knowledge that far more beautiful forms than the wild ones exist, and are obtainable at very little expense, or even, if spore sowing be adopted, packets of spores can be obtained and a good collection of the right sorts to cultivate raised with no more trouble than would be incurred by sowing the wild or common forms as suggested. A single shilling expended in this way would result in probably scores of varieties of numerous species, and thus yield a far richer, infinitely more interesting harvest than it would be possible to obtain by sowing the forms found wild. Comparatively few people, even among those who profess to love Ferns, and express their affection, as a rule, by rooting them up and subsequently killing them by neglect, appear to be aware that there are at least 2,000 curious and beautiful varieties in the various collections, amateur and professional, about the country.

The majority of these have been found as wild "sports" among the common or normal ones, Nature apparently amusing herself by occasionally producing a Fern which will be extremely different from the common or parental form, and yet endowed with a capacity for reproducing its novel type through its spores, so that practically a new race is created. Nearly all our native species have sported in this way, and for more than half a century the bunting for these "sports" has formed a hobby for many people, who have not only made collections of them, but by raising them from their spores have profited by further variation to improve the original types into such magnificent ones that no exotic Ferns can compare with them. Furthermore, no one who has once taken up the hobby either of this form of Fern discovery or simply as collectors of varieties ever dreams of admitting the wild forms into their collections, except perhaps as single examples for comparison. Hence there is absolutely no doubt that were the public taste generally educated up to this level our wild Ferns would cease entirely to be vandalised, and would only be regarded as forming material for research as regards the "sports" in question. The legitimate Fern hunter of this kind is content, and indeed happy, if after a week or a fortnight's revel in the beauties of our native Fernland, he or she returns with even half a dozen prizes, plus perhaps a dozen of uncertainties for trial. The indiscriminate Fern lover (?) ransacks the nearest hedges and coppices, and fills a hamper with the produce, leaving gaps in the frequented Fern habitats which form terrible eyesores to the true lover of Nature. The connoisseur, on the other hand, seeks his prizes in the more unfrequented spots, and in the search enjoys the beauty of mountain and lake and sylvan glen to the utmost, while as his finds are almost invariably solitary specimens, he leaves practically no mark, and, what is more, that which he does acquire is carefully tended and cultivated and probably increased a thousandfold for general distribution, so that a substantial contribution is made to our Fern wealth, instead of a substantial reduction on vandalistic lines. As these

varieties, crested or tasselled in many fashions, with their feathery character greatly enhanced and varied in many ways, are raised in large numbers by the few nurserymen who make a speciality of them, most of the beautiful forms are obtainable for a few pence or a shilling apiece, no very prohibitive price as regards a trial of their quality.

Once purchased they not only exist for a lifetime with ordinary care, but increase by means of offsets and bulbils quite independently of their spores. As they are fully as hardy as the common sorts, they demand no heat in the winter, so that their culture is easy and inexpensive, and, as they revel in moderate shade, they are exactly fitted for frames or greenhouses where there is insufficient sunshine for healthy floral growth. They are also equally at home in the shaded garden rockery, so that practically their culture is open to every garden lover. If, therefore, these remarks germinate in the brain of any reader unacquainted with these charming plants, and yet claiming to be a Fern lover, let him or her try the experiment by getting a few choice male Ferns, Lady Ferns, Shield Ferns, and Hart's-tongues as a start, when I am sure another British Fern lover proper will be added to the far too limited coterie already existing. CHAS. T. DRURY, F.L.S., V.M.H.

### THE BIRD PLAGUE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A note recently appeared in THE GARDEN dealing with the ravages caused by sparrows amongst spring flowers, and at the foot there was an editorial comment deploring any wholesale destruction of bird life. I quite agree with the latter sentiments, and I am glad to say that I do not know the man who would destroy wild birds merely for the sake of doing so; but there are moments when gardeners and fruit-growers are driven to exasperation by the ravages of birds, and drastic measures have to be adopted for preventing their depredations. Grave charges are frequently hurled at the homely sparrow, who has got a reputedly bad name for mischief, and doubtless does considerable damage in suburban gardens and other places, but, according to my experience, the evil wrought by sparrows this spring has been nothing compared to the depredations of bullfinches. These birds seem to be particularly numerous in the south just now, and I have seen numerous instances in which the buds on Plums, Currants, and Gooseberries have been destroyed wholesale by bullfinches. What is the grower to do in such a case? He may have a natural reluctance to destroy bird life, but he has his crops to consider, and he cannot afford to put sentiment first. In the matter of bush fruits he may have a remedy in dusting with soot and lime or covering his bushes with strands of thread—I know of one large grower who has spent many pounds this year in the latter operation—but thread, soot, and lime are useless where tall trees are concerned. There is only one course open to the grower; he must shoot, and the gun is the most effective means of dealing with bullfinches. Shooting does not necessarily mean wholesale destruction, for though in the moment of his wrath the gardener or fruit grower may fire to kill, if he is there early in the morning, and has the gun handy whenever the birds appear, they soon learn to regard the weapon with wholesome fear, and subsequently give the gun-protected area a wide berth.

Fortunate, I consider, is the gardener who has never made the acquaintance of another bird of the bullfinch type that has a strong natural taste for green Peas. I refer to the hawfinch or grosbeak, which is furnished with a thick strong bill that might have been intended by Nature for the sole purpose of mutilating Pea-pods. In some districts this bird is quite unknown, in others it is sparsely represented, but in others again hawfinches are plentiful and a sore thorn in the sides of Pea growers. Some years ago I was acquainted with a village in the Midlands where most of the cottagers gave up the attempt to grow green Peas owing to the ravages of the birds in question during the

time that the men were away at work. Personally I have had painful dealings with hawfinches, but never found any real remedy except a gun, and in the use of this one has to be alert, for the grosbeak is wary and is not easily scared when feeding on his favourite diet. He is an early feeder, too, and if the Pea grower would defend his crop he must be in the garden soon after dawn. Frequently the birds move about in pairs, and a couple of hawfinches will quickly destroy a row of Peas in pod if left unmolested.

A considerable item in the expenses account of Kentish Cherry growers is for the payment of men who patrol the orchards, gun in hand, when the fruit is ripe in order to protect it from birds, and from daylight to dark the reports of gunshots may be heard on every side. This protection is absolutely necessary, and though some growers employ scares and raffles, shooting is mostly resorted to. Generally speaking, the amount of killing done is not great, the object being more to frighten, but the sporting-instincts in the breast of the average Briton are so marked that it is too much to expect that a man with a gun in his hand will shoot at an object without doing his best to hit it. Various birds have a strong regard for ripe Cherries, but the starling is one of the worst offenders, and it seems to know just when the Cherries are ripe, judging from the quantities which congregate round the orchards at the time.

Indeed, birds are such a trouble in Kent that combined efforts have to be made to keep them in check. Institutions known as sparrow clubs are established in many villages, and during the winter months the working members undertake to present so many heads of birds injurious to crops to the committee at the periodical meetings of the club. Everything connected with the working of a properly-conducted sparrow club is done in a businesslike manner. Officers are appointed, the names of the birds to be destroyed are set forth on the rules, and the proper season for doing it. Prizes are given and fines imposed, and not infrequently the season's working finishes up with an annual dinner. None but injurious birds suffer at the hands of sparrow clubs, and though doubtless the loss to fruit-growers would be greater but for these institutions, there is no fear of extermination, and the clubs do nothing more than keep down the feathered foes, which would otherwise become an intolerable nuisance.

The thing to be deplored is the ruthless killing of birds that are extremely useful and do little or no injury. There is the owl, for instance, that weird bird of the night, whose hoot and screech are so familiar in some districts. No feathered creature does more towards destroying the small and injurious animals of the field, but because the bird is suspected of picking up a young game bird sometimes this is counted to be sufficient reason why owls should be destroyed by game rearers and others. We must be reasonable. Crops have to be protected against birds just as they have to be against injurious insects, but no one wishes to see woods and hedgerows denuded of the members of the feathered tribe, and it may be said that there is no fear of this through the amount of destruction that is necessary to the welfare of cultivated crops.

G. H. HOLLINGWORTH.

### RIVIERA NOTES.

**E**UPATORIUM PETIOLARE has been decidedly useful this winter. In autumn its vigorous growth and bright green leafage are attractive even before its corymbs of white bloom fully develop. As a companion to *Ageratum mexicanum* it is quite an addition, for it flowers with it and contrasts effectively with it, while its foliage and growth are even more luxuriant in this climate. When gathered and in water in the house it has a faint perfume, but the light and elegant heads of bloom are its greatest attraction.

**FREESIA ARMSTRONGI** cannot, I think, be classed with valuable new additions to the gardens on this coast. Its lilac-pink sprays of flower are pretty when in sufficient quantity, but the individual flowers are much smaller than in *F. refracta*. Perhaps a larger and purer pink flower may soon be obtained, and that will really be worth growing in quantity. The deep blood-red

**CYCLAMEN PERSICUM**, shown in quantity at Nice ten days ago at the flower show, created a great sensation among the visitors, while the salmon-pink shades, which are so much admired in England, were passed over without remark. Many hundreds of *Clivias* were shown, but all were of the poorest form and colouring, a most curious thing when there are so many richly coloured and handsome forms in commerce. The standards of *Hydrangea Hortensia cyanoclada*, carefully grown and well watered with sulphates of iron and copper, were of extraordinary beauty. It is impossible to describe the intensity and purity of the blue produced by this method. Even when tied up with blue ribbon, as is the fashion here, they quite defied all competition in their colouring.

This season the burst of summer weather, that coincided with the flowering of the Tree Paeonies and the Banksian Roses, has produced a most splendid show. The intensity of the sunlight, combined with a high temperature, has made the colours of all flowers even more brilliant than usual. After four years experience of some thirty varieties of Tree Paeonies one begins to realise the comparative merits of most varieties, and one's standpoint of vision requires alteration in consequence. Perhaps my experience may be helpful to others. It is, at any rate, this: It is the habit of the variety that is of more importance than the mere beauty of the flower. In no other plant is there so curious a variety of habit.

Some are tall, thin, and straggling in habit; others add to that so weak-necked a flower that it hangs down unseen inside the foliage and cannot be seen at all unless looked for and tied up to a stick. There are a few of the excellent habit of the original Moutan type, and it is those only that are things of such extraordinary beauty in the garden. As cut blooms I have not yet found one single variety of any sort, either among doubles or singles, that is not beautiful when well grown, which is more than I should be inclined to say of most flowers; but the number of varieties with first-class habit and vigour is select, to put it mildly. *Fragrans maxima* (blush pink), *Souvenir de Ducher* (purple), and *Reine Elizabeth* (red) are the very sturdiest and most vigorous of all here. There are many others very good and even more brilliant in colour, such as *Stuart Low* (flame colour), *Cup de Tuder* (soft pink), and *Bijou de Chusan* (pure white, loveliest of all in my eyes), but they are not quite as vigorous as the first lot. And so I could go on through the list, till at last there are six or seven varieties that are so straggling, weedy, and untidy that I think I shall harden my heart and dig them up, though that lovely single *Marie Stuart* almost redeems its miserably weedy growth. An old bush of *Reine Elizabeth* in a neighbour's garden had on it sixty huge blooms out at one time, and the biggest flowers were within an inch of being 3 feet in circumference. This will make it evident that where all are so beautiful it is of the first importance that they should grow strongly and show their flowers well above the handsome leaves. It is the merit of the Tree

Pæony to delight in a good, strong, and calcareous soil, so those who cannot grow Rhododendrons should console themselves by growing Pæonies. I have seen them very good in the north of England and excellent in Norfolk, so it is soil, situation, and shelter, rather than a warm climate, that they need. Frost in spring is, of course, their bane, and that is the drawback to their culture in England, which is, fortunately, absent here.

ROSE PERLE VON GODESBERG is one of the few new sorts that have proved of some merit this spring, for the sudden and sustained heat has forced on and even destroyed the beauty of young Roses that have not yet had time to root deeply. E. H. WOODALL.

### NOTES FROM SWANSWICK.

THE winter here has been happily uneventful. There were no severe frosts; wet everything seems to take as a matter of course after last summer, and the cold winds we always have in April and May are perhaps, so far, rather less biting than usual. North-west is where the wind has been hanging for weeks past, and when the sun is bright we can almost imagine ourselves nice and warm, so we do not complain. A few things have not so much died of the winter as dwindled away in its course, because they had become very weakly before it began. *Daphne striata* is one of these. It had a bad start, coming from an auction very much dried up, which, of course, it resented in the implacable way of hard-wooded plants, and now out of six sizeable bushes I have but one with any hope about it. I do not think the soil, full of lime as it is, or the situation is to blame, for a very small plant of *Daphne blagayana*, so small that I scarcely thought it could survive, has done very well, and the Spurge Laurel, that presumably likes the same conditions, is a perfect weed in the shrubbery. It is an engaging shrub, always cheerful with its glossy evergreen leafage, and at the earliest hint of spring covered with the waxy, inconspicuous greenish yellow flowers that have an intensely sweet, though delicate, scent. The flower of *Daphne striata* is not much, not nearly so pretty as that of *D. Cneorum*, which it resembles, though smaller and duller in tint, and if it were not rather uncommon it would not be so much regretted.

The prettiest sight of the garden just now is in the bit of border, backed by a low Box hedge, and behind that again a bank of grass and shrubs, where there is a mass of *Barri conspicuus* Daffodils, with a stretch of lilac *Aubrietia* as a flat edging in front. Then comes a little tread-path of burnt earth, such as we make to break up blocks of kitchen garden where there is not space enough for a wide gravel path, and on the other side of this some long irregular lines of Tulips of all colours, red, rosy, striped, white, and yellow. The value of the mauve or lilac *Aubrietia* in this little bit of mosaic is incalculable. There is something about it and the grey silver-green of its foliage cushions that harmonises deliciously with the *Barri conspicuus* leafage, also of a silvery tone from a distance, and when you get well above the whole picture, and 50 yards or 60 yards off, as you do by going indoors and looking out of a glass gallery that some foolish builder added to the north-east side of the house instead of to the opposite aspect, you realise that there are other uses for *Aubrietia* than the clothing of banks along the sides of carriage drives. The newer light and dark pink-purple—or one might excusably say magenta-pink—and bluish tones in *Aubrietias* look horrid in this garden, whatever they may do elsewhere. No doubt they have larger and finer flowers (and also longer and much more straggly stalks and habit), but their colour is not the perfect tenderness of tone that Nature intended and achieved in the neat, low and compact growing pale lilac variety. As to the double white *Arabis*, however, there can hardly be two opinions. Here, a single plant of two seasons ago is now a spread of yards and yards, all one mass of exquisite blossom; and

last year it was beautiful all through the summer. Any scrap stuck in anywhere and at any time grows riotously, but the flowers are finer, the white spikes larger and longer in sun than in shade.

I had some double Violets—*Marie Louise* and *Comte de Brazza*—which had been over a year in the open garden. They did not do well, for although this is Violet soil, and the singles spread in it like wildfire, they seemed starved and poor, with small leaves and meagre flowers, when there are any at all. So last September they were taken up, divided into small clumps, and planted in loam and leaf-mould about 1 foot deep, with a frame over them. They began to bloom in February; enormous flowers, the blue ones splendid in colour, the white beautifully pure, and full of scent. Now, however, the bloom is quite over, so that their season has only been just over two months long. The question is, whether it is worth while to grow them at all, since they use up a little time in the winter, although all they need is to have the lights taken on and put off, and to be occasionally watered, and sometimes to have liquid manure later on. While they are there, however, the flowers are so very lovely, and they last so grandly in water—keeping fresh and sweet for nearly a fortnight, while the singles are scentless in two days and wilted in three—that I almost think the game does deserve the candle. Possibly, better-prepared roots might have flowered longer; but I hardly think the health of these plants—when they had once established themselves the change in them was magical—could have been surpassed immediately before and during their flowering.

I have several hushes of *Andromeda*, which are exceedingly pretty just now. They were auction plants, put in last year about February or March. When planted they were in bud, and they subsequently flowered, but the blossoms looked dry and lifeless, like paper, and quite unattractive and uninteresting. After that I felt sure they would die, although we had given them as much peat as possible, and removed, so far as was feasible, the native lime-impregnated soil from about them. The wet summer, however, was their salvation, and now they are in full glory of nice, plump, waxen little white Heath-bells, and their Box-like leaves are evidence of complete, and, I hope, not merely temporary satisfaction. "Wait," said a pessimistic friend last summer, in presence of the Rhododendrons I showed him, making good growth after a first flowering, "until the lime gets thoroughly into their tissues, and then you'll see." Probably the *Andromedas* will resent it when they spread beyond their local peat area. Some of the Rhododendrons in question already have a sickly cast, and certainly a good Rhododendron mass is, so far as I know, not to be seen anywhere about Bath.

Perhaps the garden guest whose vernal return has been greeted with fondest acclamation is *Ranunculus glacialis*. A very fine, strong seedling and a much smaller and less sappy-looking, but much older, pot-plant were set together about the same time last year, and under precisely similar conditions. The former immediately made it its business to die, not with greedy haste, but thoroughly, and making the most of the process. The plant, however, sat sturdily on until its normal retreat for the winter, and has just reappeared, happy and healthy and brilliantly polished of leaf. A vile blackbird, rooting furiously in the leaf-mould mulch of the shady rockery, tore up the crown, and with it all the life, of my one cherished *Conandron ramondioides*, and also my *Schizocodon soldanelloides*—which, perhaps, was a righteous judgment on me for planting "in ones," only that I feel perfectly sure it would have served groups exactly the same—and further destroyed the little planting of *Shortia galacifolia*. All these plants needed a leaf-mould mulch, and yet, if I plant them again, as, of course, I shall when I have got over my present attitude of disgusted despair, they will have to do without it, because in this garden those hateful birds with the devastating yellow bills are on the spot instanter when any sort of mulching is employed. Not that they eat slugs; oh! dear no, nothing further from their thoughts or their

delicate palates. On the shady rockery the *Epimediums*, especially one, which I take to be *E. purpureum*, and in which the exquisitely delicate leafage on its trembling, hair-like stems is of a faintly flushed rosy bronze to match the fragile-seeming and yet very enduring blossoms that are touched with pink and primrose in the centre, are just now quite enchanting. Even the unlearned, who generally take no notice of such quietly beautiful things, all notice the misty delicate loveliness of this plant the moment they come to it. It and a pale yellow-flowered form with pinkish leafage are the pioneers, the rest of about a dozen varieties I have are still in an undeveloped stage. M. L. W.

"Holland in Ireland."—So much has been already written, and well written, by experts and others of the wonderfully successful industry carried on by Messrs. Hogg and Robertson at their bulb farm, Rush, County Dublin, that little remains to be said that is new. The industry is a most attractive one, and though of comparatively recent origin, it has been very successful. Messrs. Hogg and Robertson, if they have done nothing else, have proved beyond all doubt the suitability of Irish soil for flower growing. The exquisite beauty of the picture which is revealed when the myriads of plants have burst into full bloom is not easily forgotten, and it is not surprising that annually the farm attracts increasing numbers of cross-Channel visitors. Situated within fifteen miles of Dublin the bulb farm now extends to twenty-five acres, on which there are grown no fewer than 300 varieties of Daffodils and Tulips. In other words, seven miles are laid down with these plants, whole acres of which have already burst into bloom.

*Lathyrus pubescens*.—Although sometimes met with growing in sheltered positions out of doors in the south of England, the ideal place for this plant is a cool, airy greenhouse. Seldom is it met with flowering so profusely as it is at present at Kew, both on the roof and covering a pillar. Some of the growths are quite 20 feet in length. The colour is a pleasing shade of lavender. The compact racemes bear an average of from twelve to fifteen flowers, although several have as many as eighteen. Individually the flowers are scarcely so large as the common Sweet Pea. The name *pubescens* is admirably descriptive, the leaves being covered with down. It produces young growths from the old stems as well as from the base. If given a suitable position it climbs readily by tendrils. At Kew the plants are growing in a well drained border. When planted last year a little peat and sand were mixed with the loam, but the roots have now penetrated far beyond this. Several sprays of *L. pubescens* were exhibited at the last Drill Hall meeting by Sir Trevor Lawrence, Bart. It is a native of South America, and figured in the *Botanical Magazine*, tab. 3996.—A. O.

*Polyanthuses in grass*.—On page 302 "S. H. H." mentions the use of these on grass land. I am pleased to endorse his remarks, having grown them in the pleasure grounds here for at least ten years. Many that were planted six and eight years ago are still doing well in many positions, and are almost as good as in the first year. Our custom has been to plant them in groups frequently among the wild Primroses, and now we have abundance of coloured wild hybrids. This last autumn I planted some of the blue Primroses on a shady bank beside the wild ones to see the effect of cross-breeding. We have both Primroses and Polyanthuses mixed with the common Daffodils, and a glorious piece of colour is the result. This plan is largely adopted at Sandhurst Lodge, where the grounds abound with all kinds of spring flowers. As regards the foliage when the grass is cut, at a recent meeting of the Gardeners' Society at Reading Mr. Townsend said it did them no harm providing the grass was not mown too early, and this is my experience. We generally mow our grass from July 1 to July 14. Polyanthuses are far more effective when planted in colours than Primroses, and do not get splashed by the soil as in borders.—J. CROOK, *Forde Abbey Gardens, Somerset.*



# THE GARDEN

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## KEW IN EARLY SUMMER.

ALL who are interested in trees and shrubs should visit the Royal Gardens, Kew, before the great groups of early summer flowering species and varieties pass out of bloom. This is a year of abundant blossoming, a remarkable upset of opinions expressed earlier in the year—that 1904 would be flowerless and fruitless through the ill-ripening of the wood in the abnormally wet summer and autumn of 1903. But quite the reverse has happened, and this is no doubt due to the summer warmth in June last, the three brightest weeks of the whole year, when tree and shrub were perfecting the buds that are now expanded flowers. Kew, at the moment of writing—a warm sun, tempered with a pleasant breeze—is full of scents and colour. The collections of *Pyrus*, *Prunus*, *Berberis*, *Lilac*, *Spiræa*, *Broom*, and many other families are in their richest beauty, which is emphasised by a grouping that we can find in few private and public gardens.

If we were asked to name a garden to train the eye to beautiful effects and a right setting out of trees and shrubs we should say Kew; and this grouping is not confined to the woodland, but is seen in all parts of the grounds—perhaps a massing of *Doronicum*, of *Lily*, or of *Japanese Primrose*. The *Daffodils* in the grass have faded, but the *Tulips* are in their splendour, the *Darwin* varieties, or “*May-flowering*,” as we prefer to call them, for they are simply forms of *Tulipa gesneriana*, filling many beds in front of the *Palm house*. Sometimes there is a daring association of colour, in one instance a large group of an intense plum-coloured *Tulip*, *The Sultan*, we think, and dark *Wallflower*, an effect we have never seen elsewhere—lurid, interesting, and uncommon.

The *Lilacs* are at their best. A mass of the finest varieties may be seen near the entrance from *Kew Green*, and with the shrubs plainly labelled there is no difficulty in making a selection for planting in the autumn. Here the dark purple of *Souv. de Louis Spath* is shown against the double-white *Marie Legraye*, and varieties one is not accustomed to find in the average garden should be noted for future planting. *Mme. Jules Finger* is one of these, a variety of tender shade, almost the same as the pure colouring of the common *Lilac* of our gardens, quite double, but not with little rosettes tightly packed in a heavy

cluster. A feature of some of the newer varieties is an unwelcome stodginess in the clustering of flowers. We cannot improve upon the gracefulness of the common *Lilac*, which in its colouring is the most prized of its race.

A few yards from this instructive grouping of *Lilacs* is a mass of *Pyrus Schiedeckeri*, a supposed hybrid between *P. spectabilis* and *P. Toringo*. It is as if a pink foam were dashing over the trees—a misty cloud of colour, more beautiful even than the veil of flowers that covers *Pyrus floribunda*, which of all the *Pyruses* is happily the most popular.

In the arboretum the student or seeker after merely the best shrubs in their respective genera will find a wealth of beautiful species and varieties in bloom, and see, too, that many of the commoner trees and shrubs have a special value in the woodland in spring. The *Mahaleb Cherry* and its weeping variety are a sea of grey and white, the slender branches floating, as it were, in the fragrant air; *Prunus serrulata*, its flower-laden branches dark and stiff against the sky; *Berberises*, fountains of yellow and orange; and drifts of white from *Spiræa* and *Cherry*.

It seems unsympathetic to find fault when so great a work has been accomplished and is continuing, but the practice of sticking labels in the centre of a bush, as in the *Hollies*, is unsatisfactory. The label should be placed firmly in the ground outside, and not hidden like a bird's-nest in the centre for those who wish to discover the name to poke out.

From now onwards till the *Kniphofias* and the *Asters* tell of the ending of autumn *Kew* should be visited as often as an opportunity is given. The seasons bring their own flowers, and, as this is a botanic garden as well as a pictorially beautiful place in itself, visits must be frequent and lengthy if the many rare and uncommon plants are to be seen in flower. It was *Kew*, as we pointed out last week, that led the way in planting the *May Tulips* in brave masses; at *Kew* was built one of the first plant houses for sheltering the early flowers of the year; and this progressive and intelligent spirit dominates the whole work that is accomplished in every department. It is right to praise where praise is due, and this we can give unstintingly to the Director and his helpers. The Royal Gardens are no longer a dry-as-dust living herbarium, but beautiful in themselves at all seasons of the year.

## MAYTIME.

Now every twig and leaflet  
 Into fresh May-green breaks;  
 The larks are soaring skywards,  
 The purple Violet wakes.  
 With golden light the hill-tops dart—  
 O World, how beautiful thou art  
 In May!  
 And when the buds are bursting,  
 Low! all the earth is stirr'd!  
 The brooklets ripple madly,  
 The merry birds are heard.  
 There rings the song from every heart:  
 O World, how beautiful thou art  
 In May!  
 How gladly sway the flowers  
 Beneath the sunny sky!  
 How high the birds are mounting!  
 I, too, would mount as high,  
 And soaring thus, pour out my heart—  
 O World, how beautiful thou art  
 In May!

SYDNEY HESSELIGGE.

—(From the German of J. Rodenberg.)

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

May 25.—Edinburgh Spring Show (two days).  
 May 30.—Kew Guild Dinner.  
 May 31.—Royal Horticultural Society's Temple Show (three days).  
 June 1.—Proposed Gardeners' Association Public Meeting, Essex Hall, Strand, 5 30 p.m.

**New plants at the Royal Horticultural Society.**—One of the most interesting meetings that we have attended for some time past was that of Tuesday last, when the Drill Hall was filled with *Tulips* of all classes, and several plants were shown for the first time. The little group of *Onco-Regalia*, or hybrid *Oncocyclus Irises*, from Mr. C. G. Van Tubergen, of Haarlem, was a delight. They were hybrids between *I. Korolkowi* and *I. iberica*, and with such a parentage an uninteresting progeny is impossible. The flowers possessed both graceful beauty and delicate colouring, with veined and shaded standards and falls that almost defy description. Notes appear about them on another page. Mrs. Mangles, Valewood, Haslemere, sent a *Rhododendron* named *Dawn*, which may be compared to *Pink Pearl*; its flowers are 4 inches across, deeper in colour, and make up a noble truss. Another hybrid came from Mr. H. A. Mangles, Farnham, Surrey, and was named *Beauty of Littleworth*. The flowers are the same size as those of *Dawn*, but of purest white with a few chocolate-crimson spots on the lower petal—a lovely flower. R. Gertrude Jekyll came from the same exhibitor. This is quite a different style of flower, large, somewhat hard in outline, and white with a sharply defined bordering of red. It stands up well, and would be effective in the garden, though it has little of the graceful charm of the two others named.

**The Gardeners' Royal Benevolent Institution.**—On the 5th inst., by the continued kindness of the president of the Worcester Auxiliary, the Earl Beauchamp, the beautiful gardens of *Madresfield Court* were again placed at

the services of that committee in aid of the funds of the parent institution. A small charge was made for admission, upwards of £21 was taken at the gates, and about 700 people were present. The weather was cold and threatening, which probably deterred many from enjoying so great a privilege. The gardens, needless to say, were, as usual, in the pink of perfection, and visitors were loud in their praises of the many beautiful combinations and harmony of colour of the naturalised bulbs and other spring flowers in the grass, the same having been planted artistically on a colossal scale during the last ten years. The grouping of hardy flowering shrubs in large irregular masses was much admired. The kitchen gardens, hot houses, and hardy fruit plantations were also open, each of which found unstinted praise; the latter contains a large number of faultless specimens in great variety, the like of which would be hard to beat, and now so full of promise, blooming in the greatest profusion. A pleasant afternoon was spent, full of the greatest interest to one and all. It was hoped that other large-hearted owners of gardens would do likewise by giving so much pleasure to the gardening public and consequently helping such a deserving cause. Gardeners, follow up our worthy patron's advice and "wake up," and do your part in putting that advice into practice.—*Communicated.*

**Strawberry prospects.**—The country is smiling this year, and as yet no glaring headlines have appeared in the daily press telling of the hopeless ruin of this or that fruit crop through frost or some other cause. To the market Strawberry grower the first blooms which appear on the plants are of great importance, as they mean not only early but fine fruits, and these are the specimens which command the best prices in the market before there is any danger of a glut. Last year the Strawberry crop was a disappointing one, the first blooms in most cases being ruined by frost, with the result that there was little fruit to pick at the time when it would have fetched the most money. After the early check, however, the plants recouped themselves, flowered freely, and fruited heavily, but all the produce came in at once, with the usual disappointing results which accompany an over supply. So far frosts have kept off, and Strawberry fields look very promising, as trusses of fine flowers may be seen showing above the outline of the foliage. If no sharp frost comes to blacken the centres of these early flowers, there is every reason to think that fine fruit will be in the market in good time and in plentiful quantity this year. So far as varieties are concerned, Royal Sovereign and Sir Joseph Paxton are still the mainstay of commercial growers. Varied opinions are expressed regarding the merits of the new Laxton, which has not been out long enough yet to have a fair trial as a commercial variety, though private growers generally speak well of it. It is curious to observe that, in spite of the many Strawberries in cultivation, only a very few varieties are suitable for the purposes of the market growers, and these are grown almost to the exclusion of all others.—G. H. H.

**Three beautiful Tulips.**—Shown by Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, at the meeting of the Royal Horticultural Society on Tuesday last were the following: Inglescombe Pink, a bold handsome flower, shot with a bright pink shade, buff, and a trace of salmon, a perfect harmony of colouring difficult to describe, but enjoyable in the full sunlight when the flowers open out to disclose the pool of blue-green in the centre; Kathleen, a delicately beautiful flower, a form of Gesneriana ixioides, pale yellow, with inky base; and Flame, a superb scarlet colour, as the name suggests, and intensely bright in the sun. A bed of this must be a wonderful mass of colour.

**Royal Gardeners' Orphan Fund.** The sixteenth annual dinner of this fund was held at the Hotel Cecil on Tuesday last, Sir Trevor Lawrence, Bart., in the chair. There was a record attendance, and almost a record subscription list; the latter totalled £815. Sir Trevor Lawrence was supported by Sir John T. D. Llewelyn, Bart., the Hon. John Boscawen, Mr. Cecil Hanbury, Mr. Jeremiah Colman, Mr. Harry Veitch, Mr. Leonard



AN ORCHID BOUQUET.

Sutton, and others. A full report of the proceedings will be found on another page.

**An Orchid Bouquet.**—Messrs. Charlesworth and Co., the great Orchid growers at Bradford, send a photograph of the bouquet made by them for presentation to the Princess of Wales on her recent visit to Bradford. We reproduce it with pleasure.

**The new Edinburgh Park.**—Mr. J. W. McHattie, the city gardener, has prepared plans for the laying out of the park at Saughton and Balgreen, acquired some time ago by the City of Edinburgh for recreation grounds. As the land was intended principally for this purpose, provision has been made on a considerable scale for golf and other games, but the horticultural side has not been overlooked, for it is intended to have herbaceous and Rose gardens, for which the old garden is well adapted. There is also to be nursery ground. The plans appear calculated to meet the ends in view, and to provide what will be a great boon to people at that side of the city.

**Kew Guild dinner.**—We are requested to remind our readers who are old Kewites that the annual dinner will take place at the Holborn Restaurant on the 30th inst. at 7.30 p.m., and that the secretary, Mr. Winn, would be glad to hear before the 23rd from all who intend to be present. The Earl of Onslow, president of the Board of Agriculture, and Sir W. T. Thiselton-Dyer, director of Kew, will be present.

**Proposed testimonial to Mr. Mawley.**—It is good news that the members of the National Rose Society have determined to make a presentation to Mr. Mawley, as some token of his devoted services as honorary secretary since this famous organisation was founded. In December last the society completed twenty-seven years of existence, and until the past two or three years the Rev. H. D'ombain and Mr. Mawley worked hand in hand. Failing health resulted in Mr. D'ombain's retirement, and since then Mr. Mawley has carried out the work alone. There are over 1,000 members of the society, and the work is increasing. A circular has been issued by a small committee, consisting of Mr. A. Dickson, Newtownards, County Down, Ireland, Mr. H. P. Landon, 58, New Broad Street, E.C., and the Rev. J. H. Pemberton, Havering, Romford, to whom subscriptions may be sent. We hope the response will be a liberal one.

**Notes from Baden-Baden.**—Lobelia skia lithophila is flowering freely, and keeps on for several weeks. It is a white-flowered Crucifer, with a multitude of heads about 30 centimetres

high, and deserves a place in any large collection. My clumps of *Podophyllum Emodi majus* are quite stately. One of the clumps had fifteen flowers, and is now nearly 1 metre high. *Primula capitellata* (B.iss) is in the way of *denticulata*, but is more freely flowered and deeper in colour. *Iris tectorum album* is in great beauty, and the numerous flowers of *I. gracilipes* are quite lovely; they are lilac, with a white blotch and crest. *Anemone globosa* is not gaudy, but its small magenta-red flowers are botanically interesting. *Pulsatilla regeliana* is good; the flowers are violet, clothed with silky hairs. To-day (the 15th inst.) the first blooms of *Incarvillea grandiflora* are out. Owing to the rainy weather the showiest of all Tree Peonies (*Gloria Belgarum*) is magnificent. It has sixteen flowers of a fiery salmon colour, which are quite 25 centimetres across.—MAX LEICHTLIN, *Baden-Baden.*

**Two pretty Daisies** in flower in a border at Kew just now are Longfellow and Snowball. The former may be likened to a little reflexed *Chrysanthemum*; its petals are suffused with a clear pink colouring, and the unfolded centre of the flower is purple. Snowball, as its name suggests, is white, with a centre of yellow. Those who care for the double Daisies should add them to their other varieties.

**Vegetation records.**—On the 1st of May some years ago I noted the state of some indigenous trees and shrubs with a view to future comparison, if spared, at the same date. Each year since this has been carried out. So far the spring of 1893 has been the earliest. In that year I picked open flower-spikes of Horse Chestnut, Hawthorn, English Lilac, and Laburnum. I venture to suggest to some of your younger correspondents and readers that it would be interesting to them in the years to come if they were to begin in time and keep a few similar notes. It is necessary to always take one's observations from the same specimen, whether tree or shrub. Within a short distance of where I am writing there are two large Beeches not 30 yards apart. One of them is in almost full leafage, while the other is only throwing off its bud scales. This occurs each year more or less, though from some cause or other the difference this year is more marked than usual. It will be fully a week before the Chestnut and other specimens mentioned are in flower.—H. J. CLAYTON, *Grimston Gardens, Tadcaster.*

**Royal Botanic Society of London.** In connexion with the great horticultural exhibition to take place from June 6 to June 11 the committee of the horticultural section have arranged a conference on forestry to be held on Wednesday, June 8, under the presidency of Lord Redesdale. Professor Schlich will give an address on the subject. On Thursday, June 9, Mr. H. Somers Rivers will read a paper on "Fruit Culture."—F. GOMER WATERER, *Secretary Horticultural Section.*

**Rhododendron racemosum.**—A small bed of this delightful little *Rhododendron* at the back of the Palm house at Kew just now shows well its beauty, distinctness, and value for flowering during the month of April or later. A dozen years ago it made its first appearance at a meeting of the Royal Horticultural Society, when it was exhibited by Messrs. Veitch, and a first-class certificate awarded it. This *Rhododendron* is quite hardy, and of dwarf and compact habit. The leaves are about an inch long, dark green above and tomentose beneath. The flowers, which are borne in terminal and axillary clusters from the upper parts of the shoots, are individually about an inch in diameter, white tinged with pink, which deepens into bright rose at the tips of the segments. The plant is seldom more than a foot in height. When filling a small round bed, as at Kew, it is seen to great advantage. It is equally at home as a rockwork shrub, while it may be readily grown in pots for flowering under glass. It is a native of the mountainous parts of Yunnan in Western China, where it is said to occur at an elevation of 6,000 feet to 10,000 feet. This district is very prolific in *Rhododendrons*, many of which have found their way into cultivation within the last few years, though as yet they are not generally distributed.—T.

**Narcissus minimus.**—This, in small colonies, was very bright and pretty in early spring in Mr. Bilbey's garden at Weybridge. It is a lovely little species, delighting in a warm, well drained soil. Evidently it is much in demand now, for last year it was difficult to get flowering bulbs even from the big trade growers.—J. CORNHILL.

**Mertensia virginica.**—I saw this throwing up strongly in Mr. Bilbey's garden at Weybridge, where it is evidently well established in a cool, rather moist, position, and where it enjoys a certain amount of protection from hot sun. These conditions are absolutely necessary for the permanent well being of this lovely but rather capricious hardy flower. In hot, dry places it simply lingers and dies.—J. CORNHILL.

**Magnolia conspicua.**—From The Gardens, Newick Park, near Lewes, Sussex; Mr. Joseph Hickson, gardener to the Rev. F. S. Selater, writes: "I send you a photograph of *Magnolia conspicua* [unfortunately not suitable for reproduction.—Ed.] growing in the kitchen garden here. It is a bush tree, and was planted against a low wooden fence, probably for protection when the plant was quite small. It is now 18 feet high and 25 feet through. The flowers opened pure white this year, without a tinge of brown on them."

**Cydonia japonica pygmæa.**—In the collection of Japanese Quinces at Kew is a very pretty variety bearing the above name. It is a neat, compact plant less than a couple of feet high, and profusely laden with bright crimson flowers. In stature it forms an admirable companion to *Cydonia Maulei*; indeed, in colour the flowers are a good deal in the way of that known as *C. Maulei superba*. The "Kew Hand List of Trees and Shrubs" gives among other synonyms of *Cydonia Maulei* the names of *C. japonica alpina*, *C. japonica pygmæa*, and *C. Sargentii*. The latter, which was distributed by M. Lemoine of Nancy a few years ago, was announced as having been discovered by Professor Sargent on the mountains of Japan. It appears to me identical with the plant flowering at Kew as *C. japonica pygmæa*, but in any case it is in colour widely removed from the typical *C. Maulei*. If a form of *C. Maulei*, it is at all events worthy of a distinct varietal name. From the above it will be seen that these plants, bandied about for years from *Cydonia* to *Pyrus*, are in the latest "Hand List" classed under the generic name of *Cydonia*, but in the previous one they were *Pyruses*. It is indeed a difficult matter to keep up with all these changes.—T.

**Impatiens Olivieri.**—This Balsam now flowering at Kew bloomed there last year for, I believe, the first time. It is a native of Uganda, and for its introduction we are indebted to Sir John Kirk, who sent seeds to Kew. It forms a stout, freely-branched, somewhat upright-growing specimen 3 feet or so in height, with very succulent stems. The flowers, suggesting in shape and the manner in which they are borne those of *I. Sultani*, are considerably larger, being nearly 3 inches across, lilac-pink, with a lighter centre. Though by no means showy, it is certainly a striking plant, and one likely in time to be extensively grown. It may, too, prove of value to the hybridist, being a decided break from the other species in cultivation. While on the subject of these warm house Balsams it may be noted that *Impatiens Hawkeri*, at one time so highly thought of, has now almost dropped out of cultivation.—H. P.

**Cineraria Lady Thiselton-Dyer.** Within the last few years quite a distinct race of *Cinerarias* has been obtained, many of the varieties of which are now very popular in gardens. They are characterised by a taller and looser habit of growth and smaller flowers than the ordinary garden forms. Collectively, the members of this section are usually referred to as *Cineraria stellata*, but to a few well-marked sorts distinct names have been given. One of the best of all is *Lady Thiselton-Dyer*, raised at Kew by crossing *Cineraria Heritieri*, a native of the Canaries, with the pollen of a pretty blue variety known as *Kew Blue*. In habit and general appearance this hybrid much

resembles the typical *C. Heritieri*, particularly in the small, hoary leaves. It grows to a height of 2 feet or thereabouts, the upper part consisting of large, spreading heads of blossoms, so that when at its best it is a mass of flowers. The individual flower-heads are over an inch across, the florets being white at the base and blue towards the upper part. I am not aware of this variety having produced seeds, but it can be readily struck from cuttings, the best being those taken from the base of the plant, that are freely pushed up just as the blossoms are developing. This variety has also the great merit of remaining in bloom a considerable time. While on the subject of these plants it may be pointed out that, though to botanists they are *Senecios*, the name of *Cineraria* is not likely to be superseded in gardens.—T.

#### Proposed Gardeners' Association.

May I say a few words about this association? At present many gardeners seem to fight shy of this proposed association for their ultimate benefit, but they will warm to it when they learn that the objects and methods of the promoters are honest and straightforward. Gardeners must be convinced—by some course of procedure—that it will be a gradual development. No employer with a sense of fair play can object to a movement intended to improve the lot of the genuine worker by weeding out the impostors and wasters, thus making more room for the really capable men, and so lifting the profession a little higher—certainly needed. Gardeners are somewhat conservative, very slow to action in such a movement as the one under discussion, a laudable caution in many things, but prejudicial to their highest interests if carried too far in a vital matter of combination and unity for their ultimate good. Naturally the gardener has not that close touch with life that, say, the town mechanic has, but, speaking generally, the present-day conditions of our industries and civilisation seem to tend to making all concerned therein but mere spokes in some gigantic labour wheel, thus materially detracting from that keenness and interest which should exist for individual advancement and progress, such individual keenness and interest must leaven the whole mass, only provided it has proper play and intelligent scope for action. It is to be earnestly hoped that gardeners, after seeing the beauty of the Temple show, will muster at the meeting called for June 1 to discuss a truly vital matter, one fraught, it may be, with great potentialities and consequences to the future of a profession which ministers so largely to the peace, comfort, and highest happiness of countless numbers at the present day.—QUO.

Owing to the many opinions expressed it seems a pity the provisional committee has not endeavoured

to ascertain the general feeling on the subject. The previous meeting held could not have been attended by many private gardeners or market employees, or surely there would have been a larger proportion elected on the provisional committee. In order to ascertain the various opinions, and solely to assist in arriving at a correct solution, will all gardeners, market, and nursery hands who have been employed in horticultural work for the past ten years send a post card with their full name and address and the figures (1), (2), (3), or (4), as best corresponds with their views, viz.: (1) Are you in favour of a society to include gardeners, nursery and market growers, and horticulturists generally? (2) Are you in favour of a society for private gardeners only? (3) Are you in favour of a society for nursery and market employees only? (4) Are you against any association being formed? Will all interested kindly respond, and I will endeavour to tabulate and give results in time for the meeting to be held on June 1.—WILLIAM E. CLOSE, 23, Langthorne Street, Fulham, S.W. [We print this letter, but an opportunity is given on June 1 for those who attend to state their views; this is one of the objects of the meeting. It must be understood the committee is purely "provisional," and much will be heard at the meeting called for June 1 of the work already accomplished and to be done in the future.—Ed.]

#### Begonia Triomphe de l'Est.

—MM. Victor Lemoine et fils recently showed a new *Begonia* which belongs to the same group as *B. Gloire de Lorraine*, *Caledonia*, &c., and which, like them, is remarkable for its extraordinary floriferousness. The flower-stems rise well above the foliage, which is hidden by the multitude of flowers; these are smaller than those of the varieties just named, and are of a distinct colour—deep coppery red. *B. Triomphe de l'Est* is a hybrid between *B. socotrana* and an unknown. According to the information given by MM. Lemoine it blooms later than *B. Gloire de Lorraine*; the plants shown at Paris on the 14th ult. began to flower in the middle of January. This new variety has, up to the present, produced male flowers only.—F. POWELL.

#### BORDER CARNATIONS FOR MARKET.

MUCH has been written in THE GARDEN of the Tree Carnation for flowering all the year, or at least for the greater part. This, however, is only successfully carried out when the plants are grown in large numbers, that is, thousands of one sort, and in possibly two or three stages. This is the result of successive batches of cuttings inserted probably over three or four months and even longer. Some growers insert large batches of cuttings from September to November, and these naturally make fine bushes when a year old. Quite early in January propagation begins again, and is continued until April or May in the endeavour to maintain a steady supply of flowers at all seasons. It is in this connexion that certain border Carnations may be said to form a useful adjunct to the tree section by way of perpetuating the supply of bloom. Not many sorts are grown, for the reason probably that their flowering would clash with the second or spring flowering of the tree varieties, which would neither be desirable nor profitable. One of the best and most popular of the border Carnations is the pink *Duchess of Fife*, of which an illustration is now given. The delicate colouring comes out clearly under glass in the months of May and June and later. Owing to this pink colouring the glass houses are generally heavily shaded at the approach of the flowering period, and for the same reason the variety when grown in the open is always best for a slightly shaded position.

The general cultivation is simple enough though somewhat different from the ordinary methods of growing the border varieties. The plants are pot grown always. A start is made with young layers which are grown in 5-inch pots for the first flowering and then given a shift to a larger size, or layered if more stock is required. In all large nurseries where this Carnation is a leading feature plants will be found up to those of three years old,



CARNATION DUCHESS OF FIFE IN MR. MAY'S NURSERIES AT TEDDINGTON.

a shift being given each year. Contrary to expectation it is these old bushes that yield the finest flowers. When the plants reach this age they are discarded, save a few of the strongest that are used for layering again.

It is a remarkable fact that no treatment as yet known will cause this or other border Carnations to bloom in winter. Where thousands of plants are grown, however, there are bound to appear occasional flowering shoots which are always prized. To give some idea of the wealth of bloom produced one has but to take a solitary layer that having flowered will develop, say, half a dozen shoots, which in the ordinary way would be layers. In the market nursery when stock is abundant these shoots are not layered, and the plant is simply potted into a pot of larger size. In the next year each of the half dozen shoots, or layers as they would be in ordinary circumstances, produces its spike of bloom, and as each spike carries from four to six blooms it will at once be seen how serviceable is the variety for producing flowers in quantity.

It is in this connexion that the system should commend itself to all gardeners requiring choice Carnations in spring and early summer. The mistake should not be made of trying to force the plants. Housed in October or later in pits or frames, just keeping out frost, little progress is made before the middle of February, when the spike comes slowly away. The two and three year old plants naturally flower earliest, their growth having in the past year been made early under glass. Thus it is that layering is often done in June, and the "grass" developed early in this way roots, and the growing season is much longer after potting. Germania and Lord Roberts are yellow and well suited to the same system, and if disbudded produce very handsome flowers. The photograph from which the illustration was prepared was taken in Mr. George May's nursery at Upper Teddington. Mr. May is a large grower of Carnations generally. E. J.

## ROUND ABOUT A GARDEN.

### A PHILOSOPHY OF ROSES.

**H**OW little we learn of the lessons that our gardens teach. Everyone who, in the early year, pruned his Roses with judicious severity—or, better still, as the old maxim advises, entrusted the task to a friend, lest weak fondness for favourites should check the hand that held the knife—has a bounteous reward in prospective now. Magnificently strong and leafy shoots, crowned each with its swelling bud, promise finer Roses than each plant ever bore before, and in anticipation one can almost already enjoy the pleasure of selecting the most perfect blooms—it may be for the applause of multitudes at the show or for the admiration of grateful friends, or, perhaps, only for one's private pleasure in a bowl on the writing-table. But in whichever channel our ambitions run, how seldom we look for other value in the careful growing of Roses than the mere enjoyment of their blooms!

### THE BENEFIT OF PRUNING.

How seldom it occurs to us to think why this remorseless chopping off of what at first sight might seem the most promising portions of the Rose tree should result in the production of vastly finer flowers; and, even when we think that we comprehend the philosophy of the matter, how far we are, as a rule, from the kernel of the truth! Why do we get the finer blooms by cutting out all the old wood of some Roses, and by cutting back the young wood of others? It is easy to answer this question, of course. It is because, by concentrating the strength of the tree upon a limited number of buds, and by removing those parts which contribute less than nothing to the plant's vigour

in proportion to the air and sunlight space which they occupy, we specialise its energies upon the production of perfect flowers.

### ONLY HALF AN ANSWER.

With this ready answer we are usually content, and many copy-book maxims might be framed from the smug experience of the average Rose grower. Wielding his knife or scissors with remorseless equity, he finds even Solomon's maxim against "sparing the rod" congenial to his mind, and, in the hardest of twentieth century senses, he argues that to "specialise" is the secret of success. Yet it is a hard, Spartan wisdom, this of the pruning-knife; and it does not, after all, cut through even the fringe of the veil of mystery which enwraps success in Rose growing. Nature is very wise—wise with the experience of unnumbered ages of stress and strife—and, if so simple a matter as concentration of energy or specialisation made all the difference, would not Nature have learned to concentrate and specialise long ago? Why should a Rose, growing as Nature bids it, produce indifferent blossoms and few in proportion to its foliage? For a plant which grows under natural conditions we may be sure that Nature's plan is the best. What, then, is the difference in conditions which makes our defiance and contradiction of Nature's rules produce the best results?

### THE REAL REASON.

This, it seems to me, is the question which all who grow Roses should ask before they dogmatise upon the philosophic aspects of their work. Yet how few ask it, and has anyone ever stated the answer? Yet it is simple. Go out now, before the new leafage of spring has completely veiled the practice of Nature in filling all her spaces with vigorous greenery. Look at any wild Rose or Bramble or Thorn bush, and you will see the answer plainly. In a state of Nature the great problem of a plant's existence—the question beside which all others are comparatively unimportant—is how to obtain protection against herbivorous animals. Many and various are the devices which different plants adopt; but the Rose belongs to a class which, for good or ill, has adopted the device of thorns or prickles, and upon this the whole theory and practice of the pruning of Roses depends.

### NATURE'S DEVICES.

Different as the wild Rose, the Blackberry, and the Hawthorn may seem in their habit and mode of growth, all are really guided by the same principle and achieve the same end by almost identical means. Relying upon thorns for protection, it is manifest that the soft, growing shoots, which cannot be armed with hard thorns, would be at the mercy of browsing animals if they were not partly protected by the hard, thorny wood of the previous year. This is why, in a state of Nature, the Rose burdens itself with the upkeep of old branches, which add nothing to the bloom or fruit of the year. Also, it is manifest that strong-growing shoots which pass beyond the protecting circle are liable to be bitten off by browsing animals; and so Nature has taught the Rose to rely, if necessary, upon the half-dozen or so of buds near the base of each shoot for its display of bloom. Of course, if a Rose tree or Thorn bush is so lucky as to escape the attack of herbivorous animals, by means of its long shoots, it quickly reaches an altitude beyond their reach; and it is no small proof of Nature's wise experience in this respect that the upper branches of thorny trees are usually thornless. But in the majority of cases the bushes are bitten back by browsing animals;

and, if we prune our Roses, we do but give Nature free play in the production of blossom without the burden of supporting the old wood or sending out long shoots to get beyond the reach of browsing animals.

### RELIEF, NOT SEVERITY.

Where, then, are our Spartan maxims about "sparing the rod," &c.? In our Rose garden we have a certain number of plants, wisely taught by Nature to conserve their protection of old, thorny wood, and to send out shoots far longer than is necessary. These—since herbivorous animals do not browse in our Rose garden—we are able to relieve of the burden of the old wood and of the superfluous length of the young shoots. In other words, we simply take from our Roses the great incubus which the struggle for existence under natural conditions imposes upon them. Yet, whether we grow them for public fame, for the applause of friends, or for our own private pleasure, we take all the credit to ourselves, and draw a foolish conclusion that severity of training necessarily produces good results. The converse is the fact, however; and with children, as with Roses, you have only to relieve them of the burdens which they still bear, in consequence of the struggle for existence through which the race has passed, to produce, with the ready aid of Nature, results fit for life's best prizes. E. K. R.

## NOTES ON HARDY PLANTS.

### TWO DWARF EARLY TULIPS.

**O**F late years the regions of Central Asia have furnished us with several brilliant and showy members of this popular genus, among which the two following species take a foremost place for refinement and beauty. Others, like *T. Greigi*, may be larger and more gorgeous, but these may be considered two of the choicest gems of the family:

*T. Batalini*, which takes its name from Professor Batalin, was found in Eastern Bokhara about twenty years ago, and was first exhibited at one of the meetings of the Royal Horticultural Society in 1896. It is not, however, a common plant, although not at all difficult to grow, and quite amenable to the usual treatment given to this class. The bulbs are small and have a woolly tunic, and the stems, which vary in height from 5 inches to 8 inches, bear about six or eight linear lanceolate glaucous leaves 5 inches to 6 inches long, the margins of which are much undulated. The pale lemon-yellow flowers are over 4 inches in diameter, with ovate acuminate segments, each 1½ inches broad at the widest part. Almost destitute of a blotch at the base of the perianth segments, this consists of a slightly darker shade of yellow. A lovely plant, and worth a place in any garden, however small.

*T. linifolia*.—The figure of this handsome species given in *Regels Gartenflora*, t. 1235, does it but scant justice, and few would feel inclined to obtain it from seeing that figure alone. It was found in Turkestan in 1883 growing at elevations of 4,500 feet to 6,000 feet, and was brought into cultivation two or three years later. Like the above species, it has a small brown, woolly-coated bulb, which produces stems varying from 1 inch to 9 inches in height. In the dwarfier forms the much-undulated linear leaves, eight to ten in number and 5 inches to 7 inches long, lie on or close to the ground, surmounted by the brilliant scarlet-coloured flowers, each between 4 inches and 5 inches in diameter. In the taller forms the leaves are not so close together on the stem, and have less wavy margins. The perianth segments are ovate acuminate, 2½ inches long, and 1½ inches broad, with a dark, almost black blotch at the base. A fit companion for the above, it is equally easy of cultivation. W. IRVING.

## FRITILLARIA PERSICA.

THE majority of the Fritillarias are by no means among the easiest of plants to grow successfully, but the subject of this note shares with the handsome Crown Imperial (*Fritillaria imperialis*) a robust constitution that renders it practically indifferent to soil and site. The Crown Imperial is indeed a very showy and effective plant, and is far superior in qualities of display to the Persian Fritillary, yet the latter plant is not without its own special charm, and its rather sombre-tinted flower-spike is interesting if not particularly striking. Strong plants throw up flower-stems fully 4 feet in height, the upper 16 inches of which hold blossoms. I have just counted thirty blooms on my strongest spike. The flowers are purplish maroon in tint, much the colour of a Black Hamburgh Grape, and carry a Grape-like bloom. They are pendent, of open bell-shape, and measure 1 inch in diameter across the mouth. On turning them up the dark interior is seen to be beautifully contrasted with the golden anthers. The leaves are lanceolate, and glaucous green in tint, the lower

willingly be without it, more especially as its culture is of the simplest, and it will flourish in gardens where all other more gaily coloured of the spring Irises incontinently die. It flowers as well in the poorest and stoniest of soil as in a bed of deep loam, and does not resent transplantation even when in full growth, as I have found from being compelled to shift it on one occasion when in that condition. The flowers are borne on foot-stalks about 18 inches in height, and the leaves exceed 2 feet in length. The leaf is curious in form, being quadrilateral in shape, with a distinct ridge at each corner. It is a native of the Levant, but has become naturalised in some parts of South Devon, where it now grows wild. S. W. F.

## WALL GARDENING.

I SEND you three photographs taken in my garden on the 20th ult. by my son, Mr. E. C. Wolsley. No. 1 is of *Primula purpurea* in the rock garden. This has flowered wonderfully well this year. It began flowering at the end of February,



A WALL OF FLOWERS IN SIR CHARLES WOLSELEY'S GARDEN, WOLSELEY, STAFFORD.

ones being 6 inches in length and 1 inch in breadth, diminishing in size higher up the stem. The plant is of graceful growth, and has a striking and unique personality which renders it welcome in the border. S. W. FITZHERBERT.

## IRIS TUBEROSA.

THE Snake's-head Iris, as this plant is popularly termed, is by no means a showy garden subject, for the flowers, with their velvet-black falls and pale green standards, are of somewhat sad colouring. This Iris is the "La Vedovina" of Italian gardens—the "Little Widow," a title not inapplicable to the dainty black-draped flower. The blossoms have a delicate and subdued beauty, and, being endowed with a pleasing fragrance, are welcomed for indoor decoration, especially since in the south-west they are in full beauty in mid-February, when the open garden affords but few flowers for the house. Much is written of the numerous spring-flowering Irises, but La Vedovina is treated with almost complete neglect. Those who know the quaintly-pretty flower would not

and although several times flowers have been cut from it, when photographed it had eighteen fully formed flowers on it, and is still in bloom at the time of writing. The plant just below it is *Orobus alpestris*, also in flower. The other two pictures show a portion of a wall garden. It was an old stone wall forming a ha-ha, the boundary of the flower garden, which I planted about two years ago with wall plants and alpines by cutting holes in the wall and enlarging the joints. At the bottom of the wall are Primulas and Polyanthuses, which have flowered splendidly this year. The plants in flower falling in masses at intervals are Aubrietias. Besides these there are Cistuses, Helianthemums, Saxifrages, Sedums, Wallflowers, Linaria, Campanulas, and innumerable other plants, and from now to November it will be continually changing its colour and effect. The bank facing it has been planted with Azaleas, but the photographs do not show this.

Wolsley, Stafford.

C. M. WOLSELEY.

[We reproduce with pleasure one of the photographs sent, showing a wall garden of flowers.—Ed.]

## THE LILIES.

(Continued from page 271.)

**L**ILIIUM KEWENSE × (W. Wats.), the Kew Hybrid Lily.—One of the few hybrid Lilies of recent introduction, and a good garden plant for indoor cultivation; it is derived from crossing *L. Henryi* with *L. Brownii* var. *Chloraster*. Bulbs purplish, the scales densely spotted pale red, resembling those of *L. Henryi*. Stems wiry, not very stout, 6 feet high, purplish, rooting freely from their bases. Leaves lance-shaped, deep green, scattered, recurving, 6 inches to 8 inches long, resembling those of *Brownii*. Flowers three to six in a loose umbel, each 8 inches across, reflexing but slightly, and resembling in size and shape a narrow-petalled *L. auratum*. The flower is buff, varying in tint from pale buff to nankeen yellow in different specimens, but the colouring is always paler near the petal margins. Very rare in cultivation. Flowers in July and August.

**CULTURE AND USES.**—Our experience with this plant in a sheltered place is altogether disappointing, and we have only been able to grow it well in a cool greenhouse. It would probably thrive in a light soil and warm situation, but until the bulbs are available in quantity for extended experiment we cannot speak for certain of its garden worth as a border plant. It is only fair to add that the bulbs we have tried were raised and developed under glass, and that these would naturally be more tender than those developed under cooler conditions. It should prove hardy and an excellent doer, for the bulb is that of *Henryi*, the stems and leaves those of *Brownii* var. *Chloraster*.

*L. Kramerii* (Hook. fil.).—See *japonicum*. (Thunb.)

*L. lancifolium* (Hort.).—See *speciosum*.

*L. Leichtlinii* (Max Leichtlin's yellow Tiger Lily).—A beautiful Japanese Lily of dainty colouring and slender habit. Bulbs small, conical, as large as a Walnut, yellowish, the tips very prominent. Stems 3 feet to 4 feet high above ground, brown, very slender, rooting freely at their bases, and bearing one to six bulbils where covered; the shoots develop at right angles with the bulbs, and they travel 6 inches to 12 inches distant before piercing the soil. Leaves narrowly lance-shaped, scattered, 5 inches to 6 inches long, recurving, and very lax. Flowers two to five in a shortened spike, recurved as in the familiar Tiger Lily, rich lemon-yellow, 5 inches across, the petals dotted with claret dots in the lower half. Filaments and styles also yellow. Common in cultivation. Flowers in August.

**CULTURE AND USES.**—This Lily rambles greatly, a feature more or less characteristic of the lesser Tiger Lilies. Their running stems, bearing bulbils, here and there offer a ready means for increasing the stock, but this habit is a nuisance in gardens. To appreciate this Lily grow it in colonies in a warm border, choosing a sunny exposure and shelter from winds. The soil should be light and sandy, as the bulbs rarely develop in a heavy loam or clay. It might be associated with Heaths and small shrubs in a peat bed, or with flowering plants of low growth in a border. The growth

is not strong and the bulbs are never very large, but they increase rapidly and develop quickly. We have seen this Lily grown well in pots, but this way cannot be recommended.

*L. leucanthum* (Baker), the white-flowered *L. Brownii*.—One of Dr. Henry's discoveries on the Ichang gorge of the Yang-tze-Kiang, and allied to *L. sulphureum* and *L. Brownii*. Bulbs globose, dark purple,  $2\frac{1}{2}$  inches in diameter, provided with thick, permanent roots, which descend deeply. Stems slender, 4 feet to 5 feet high, bearing bulbils in the leaf axils on the upper portions, and stout roots at their bases. Leaves mere bracts low down, narrowly lance-shaped elsewhere, scattered, very numerous, much recurved, very thin in texture, and pale green. Flowers one to three in a short spike, each 7 inches long, horizontally poised or drooping, funnel-shaped, white throughout, greenish externally and internally low down, very fragrant, connects *L. Brownii* with *L. sulphureum*, and differs from the latter plant in having hairy filaments. Rare in cultivation. Flowers in August.

**CULTURE AND USES.**—This is a slender Lily little known to cultivation. It requires a warm, sheltered situation in the plant border, a well-drained soil freely charged with rubble, and where the limits of the rock garden will admit of so tall a plant being introduced, it would do better in clefts amid boulders buried deeply than anywhere else. It reaches its finest development under pot cultivation, and it requires drier treatment than the majority of Lilies. Its slender, weakly stems require the utmost shelter in every case, and at no time is it very vigorous.

G. B. MALLETT.

(To be continued.)

## ROSE GARDEN.

### ROSA SINICA ANEMONE.

SO greatly admired this season in gardens on this coast has been this hybrid between *Rosa sinica* and *H.P. General Jacqueminot*, that the illustration, taken from a photograph, will be of some interest. Ladies I notice generally call it the Pink Velvet Rose, which, perhaps, may explain the charm its large single blossoms exercise. It is very free-flowering, very vigorous in growth, evergreen, and hardy in all positions here, so the nursery-men tell me the demand for it increases rapidly. Pruned at the end of August or early September, it flowers in December with other winter Roses, and by March it is again covered with its large and lovely blooms, which expand by degrees till they become quite flat open. The photograph was taken from three freshly-budded plants, which were put in last August at the foot of a dead *Dracena*, and in March the trunk was densely clothed with foliage and flowers to a height of 5 feet. Next autumn the whole stem will be hidden to a height of 10 feet or 12 feet, and the harvest of

bloom will be in proportion. Some flowers measure over 5 inches across.

Nice.

E. H. WOODALL.

### HYBRID TEA ROSES CLASSIFIED.

This beautiful group has increased so rapidly that it seems to me some attempt at classification would be serviceable. I admit the matter is difficult, as there are so many varieties, and, as Hybrid Teas are popular, raisers seem to place their novelties in this group regardless of their fitness for the same. In spite of these small difficulties there is certain ground to work upon, and doubtless in the future the distinctions will be more pronounced. Taking that splendid achievement of the late Mr. Henry Bennett's hybridising skill, namely, *Lady Mary*

*Lyonnaise*, *Amateur Teyssier*, *Charlotte Gillemot*, *Marie Louise Poiret*, *Nelly Briand*, *Violoniste*, *Emile Leveque*, *Mildred Grant*, and *Papa Lambert* all appear in this group. They are all excellent varieties, but have stumpy growth, which detracts considerably from their usefulness. What a contrast when compared to the lusty

*Caroline Testout* group. Here we have vigour and freedom of flowering. The names of some of the best known are *Admiral Dewey*, *Killarney*, *L'Innocence*, *Gladys Harkness*, *Mme. Augustine Hamont*, *Lady Moyra Beauclerc*, *Mme. Marie Croibier*, *William Askew*, *Helene Guillot*, *Marguerite Guillot*, *Mme. de Kerjegu*, and *Apotheker G. Hofer*. Nearly every one of these would harmonise in growth with the parent, so that a useful purpose may be served in enabling planters to group the tribes together in beds and borders. It will be noticed that there are no crimson in this group. I do not expect we shall have to wait long before there are some produced.

*Mme. Abel Chatenay* is a beautiful Rose, as useful in the forcing house as in the garden. Flowers were fetching as much as 20dols. per 100 in the Chicago wholesale market about Christmas. A good crimson of this type would be welcome. Whether we have it in *M. Pernet-Ducher's Etoile de France* remains to be seen. The varieties that appear to belong to this group are *Mina Barbanson*, *Ferdinand Jamin*, *Frau Peter Lambert*, *Mme. Edmée Metz*, *Princess Charles de Ligne*, and *William Notting*. The latter I have heard good accounts of, but prefer to wait and see it before recommending it.

*Kaiserin Augusta Victoria* is my next representative of a group, and a most valuable one it is too. Somehow at present raisers do not appear to have improved on the growth, save, perhaps, one sort—*Duchess of Portland*. This if anything is rather more vigorous. In addition to the latter we have *Perle Von Goësborg*, *Goldquelle*, *Goldelse*, *Friedrich Harms*, *Grossherzog Victoria Melita*, and *Georges Schwartz*. Some of these are of fine colouring, but the growth must be improved upon before they will succeed in this climate. They are charming forcing Roses. I have not included the climbing sports of any of the tribes named, as they hardly come under the scope of this paper. The

*La France* group should, perhaps, have appeared first, so important and well known is it. The varieties that may be grouped here are *Duchess of Albany* and *Augustine Guinoisseau*, sports of *La France*; *Aurora*, *Exquisite*, *Farbenkonigin*, *Grand Duc de Luxembourg*, and *Denmark*. Here there is room for a good red and yellow, also a pure white with the delicious fragrance of the type.

*Mrs. W. J. Grant*, or *Belle Siebrecht*, is a Rose of surpassing beauty, but its hybrid origin appears to have imparted to it a somewhat weakly growth, which all growers cannot overcome. But it is so good that no one will grudge planting it at frequent intervals. Most assuredly *Liberty* is of this type, and *Mme. Jules Grolez* bears a striking resemblance, although a better grower. *Pharisaer* is an advance, for it is a stronger grower. Other varieties of this group are *Robert Scott* and *Lady Battersea*.

I must rapidly pass over the other groups. Perhaps some exception will be taken to this grouping, and no one will be more pleased than myself if this matter of grouping can be placed upon some tangible basis.



ROSE SINICA ANEMONE AT NICE.

(From a photograph kindly sent by Mr. E. H. Woodall.)

*Fitzwilliam*, one seems to see its influence running through the great majority of the Hybrid Teas, and yet I believe in a few years this race will have to be discarded to make way for the better-growing *Caroline Testout*, *Mme. Abel Chatenay*, and similar groups. The

*Lady Mary Fitzwilliam* race appears to be the most numerous. I do not pretend to name all the varieties, but such good sorts as *Antoine Rivoire*, *Mme. Cadean Ramey*, *Mme. E. Bouillet*, *Marquise Litta*, *Souv. de Mme. E. Verdier*, *Souv. du President Carnot*, *White Lady*, *Tennyson*, *Paul Ledé*, *Mme. Paul Olivier*, *Alice Furon*, *Beauté*

*Viscountess Folkestone*: Bessie Brown, La Tosca, Josephine Marot, and Rosomane Graveraux.

*Captain Christy*: Red Captain Christy and Gloire Lyonnaise.

*Camœns*: Marquise de Salisbury.

*Gustave Regis*: Mme. Pernet-Ducher, Mme. Charles Monnier, Billiard et Barré, and Germaine Trochon.

*Grace Darling*: Countess of Pembroke, Mme. Wagram, and Countess of Caledon.

*Souvenir de Wootton*: Princess Bonnie and Ma Tulipe.

*Grüss an Teplitz*: Bardou Job.

*Mme. Ravary*: Le Progrès.

*Clara Watson*: Prince de Bulgarie, M. Bunel, and Pauline Bersez.

A glance at these lists will show the reader what is still desired in order to fill out the various groups. The last two we cannot well have too many of. No more beautiful novelty has appeared for some time than Mme. Ravary. I sincerely hope this group will increase, and some good hardy yellows of a more intense colour in the open flower be added. We want a yellow bedding Rose as brilliant in effect as the Polyanthus or the Daffodil. At present, where is it? Surely such a Rose is not out of the range of practical cross-fertilisation. I think if raisers would work more for some definite object, rather than haphazard, we should not have so long to wait for the desired colours. P.

## POT AND PARAPET GARDENING FOR THE POOR OF TOWNS.—II.

(Continued from page 325.)

"Man immured in cities still retains  
His inborn, inextinguishable thirst  
Of rural scenes, compensating his loss  
By supplemental shifts, the best he may."

ONE of the first to be applied to for advice and particulars was Mrs. Richard Free, who, with her husband the Rev. Richard Free, Rector of St. Cuthbert's, Millwall, E., has done so much in encouraging and promoting the love of gardening, and especially window gardening, amongst her poor.

Mrs. Free's Window-box Society has flourished for several years. Its rules are very simple:

1. An annual fee of 2d. admits to membership, entitles the member to a share in the plants that are sent for distribution, and gives the right of competing for prizes at the annual exhibition.

2. Judges to be strangers, and their decisions final.

3. Competition to be end of July in each year.

4. All members to encourage each other to further the objects of the society.

5. Enrolment as a member to be taken to mean adherence to object and rules.

Each member is given a card, his or her name is written on it, and a request to hang the card up. The rules are printed on it, and the list of prizes to be competed for, which are as follows: For best window-boxes; for best groups outside; for best groups inside, ground floor; for best back gardens; for best front gardens; for best plants grown indoors; and for best Begonia grown in a pot.

There is also a list of the committee (five); the name of hon. secretary and treasurer, which happens to be Mrs. Free; the list of patrons and patronesses (20); and the notice that advice will be given gladly by the committee to any members requiring it.

The writer sent Mrs. Free a list of the following seeds and plants, asking if she considered them suitable for growing under city conditions:

*Plants*.—Fuchsia, Marguerite, Marigold, Creeping Jenny, Petunia, Geranium and Ivy Geranium, Heliotrope (Cherry Pie), Lobelia, Musk, and Fern.

*Seeds*.—Candytuft, Larkspur, Lupin, Mignonette, Virginian Stock, Nasturtium, Sweet Peas, Convolvulus, Canary Creeper, and Scarlet Runner.

The following is an extract from her letter of reply: "With regard to seeds and plants I cannot recommend Cherry Pie; it takes a sort of blight.

Nor Musk, which requires so much water as to be detrimental to other things. Fuchsias, Marguerites, Marigolds, Creeping Jenny, and Tufted Violas are all desirable, especially Petunias, and also Stocks of all kinds. For seeds your list is good where there is space to grow them."

The Millwall flower show of 1903 took place on August 4. An extra prize was given for "Best-looking House," that is, most prettily adorned with greenery or flowers.

The next extracts are from particulars kindly furnished by the Rev. W. H. Davies, The Rectory, Spitalfields, E.

### OPEN TO THE WHOLE OF SPITALFIELDS.

We always distribute young plants (not seeds) to (a) adults and (b) children.

Each plant is sealed with a tape.

The children and adults pay 1d. each for the plant.

All the plants are in pots when we give them out.

We never give seed. It would be almost hopeless here. The difference between the cost of the plant to us and the sum we receive from intending exhibitors amounts to about £5.

Our sources of income are: (a) Afternoon tea on the opening day; (b) a few voluntary subscriptions; (c) flowers given and sold; and (d) money paid for admissions.

We also try to encourage window gardening.

We give neither mould nor plants for these boxes, but the prizes may be 7s. 6d. or 5s., and this gives encouragement.

### SPITALFIELDS FLOWER SHOW.

This is held on July 7 and 8.

Admission: Thursday, 4 p.m. to 7 p.m., 6d; 7 p.m. to 10 p.m., 2d. Friday, 7 p.m., 2d. Children and exhibitors half-price.

Geraniums and Fuchsias are distributed to scholars at the two schools during the week ending May 16. Prizes are given for the best plants grown from these stamped plants. There are also prizes open to the whole of Spitalfields for best buttonhole flower, made up by exhibitor, and for best window garden (entries by June 13). Also for best plants in pots furnished by competitors, but these, too, must be sealed with tapes.

"The flowers that won prizes at the last flower show included Geraniums, Fuchsias, Musk, Ferns, climbing Plants, and miscellaneous plants."

A copy of the report, lists, &c., from Aldenham Street Institute in connexion with the Presbyterian Church, Regent's Square, N.W., also contains much that is instructive. No doubt here conditions are better, therefore we find that seeds play a more important part.

The committee allow Sunday School scholars and all members of the institute and of the Working Girls' Club to compete at the annual flower show. In April, 1903, 520 packets of various seeds were distributed, and on May 12 a further distribution was made of different kinds of plants in pots. From these were exhibited at the flower show four boxes of annuals, 147 annuals in pots, and 193 plants. All the plants already mentioned were on the list, with the addition of Calceolaria and Golden Feather. The seeds also were much the same as those already named, but prices are higher. Seeds were sold at ½d. per packet, and plants from 1½d. up to 2d. and 3d. Pots were charged for at the rate of ½d. each. At the flower show held last year at the Aldenham Institute there were also exhibited thirteen of last and previous years' plants.

Mrs. Clementi-Smith of St. Andrew's Rectory, Doctor's Commons, E.C., was another authority we could not but apply to, because if any people can conquer difficulties it is Mrs. and the Rev. Clementi-Smith. The following is from a letter kindly sent me:

"It is a little difficult for us to give you much real help on the subject you ask me about, and for this reason: We look upon the places you mention as town to be practically country as compared with us—places where they would at any rate get sun, which is our chief want here, as you may remember how surrounded we are by high walls.

"Some of the things you mention I think might do in some places, but I do not myself think that

Forget-me-not would do well, and I cannot manage London Pride. I know that Auriculas and Sun-flowers will do in many strange places, also Creeping Jenny, and, of course, any of the Ivy-leaved Geraniums, because they have shiny leaves. The dirt very soon clogs all other kinds, and they cannot be washed because they are so hairy. Everybody says that Carnations ought to do in London, and I believe they would; but it is not everybody in the country who can grow them. Still, there are some common sorts which anyone might manage. As you say, Ferns will consent to exist, but only the common ones; and I find that although the Hart's-tongues have the most shiny leaves, they die at once in our garden.

"In the places you mention I should think that Nasturtium would certainly do well. I can get the seeds to come up all right, but they will not flower here, or anywhere without sun. I noticed a Carnation seed, sown in the spring, flowered in the Embankment Charing Cross Gardens." F. A. B.

(To be concluded.)

## HARDY EVERGREEN OAKS.

(Continued from page 321.)

**QUERCUS ACUTA.**—This Oak is one of a distinct type of evergreen species, native of Japan, with leaves somewhat Laurel-like in character, and considerably larger than those of any of our European species. Belonging to

the same type are *cuspidata*, *glauca*, *glabra*, and *vibrayeana*, all of which will be described in this paper. It is one of Messrs. Veitch's introductions, and in the Coombe Wood Nursery is one of what I suppose were the original plants, now a fine specimen upwards of 20 feet high. This and all the other representatives of the species I have seen in Britain are rounded and shrubby in habit. Yet Sargent says that in Tokio, where it is common, he saw trees more than 80 feet high. Its largest leaves are about 6 inches long and 2 inches wide; the smallest one-third as large. They are of ovate-lanceolate shape, of stiff leathery texture, dark glossy green, and undulated or slightly toothed at the margin. The acorn is oblong, and less than 1 inch in length. Raised from seed, this species shows considerable variation in habit and size of leaf. Some forms so raised have been named, such as *robusta*, with broader, larger leaves; and *pyramidalis*, with a more erect habit.

*Q. agrifolia* (Encina).—Introduced from California to Great Britain by the Horticultural Society in 1849, this evergreen Oak is still one of the rarest of cultivated species. A single specimen nearly 30 feet high, with a thick trunk dividing near the base, is in the collection of Oaks at Kew. It is the largest specimen I have seen, but there is, I believe, a finer specimen in Lord Ducie's arboretum at Tortworth. Of bushy habit, with a rounded head of dark foliage, it is in general aspect very similar to the common evergreen Oak (*Q. ilex*). No doubt its similarity to their native species led the original Spanish colonists in California to call it "Encina," which is the Spanish name for *Q. ilex*. In its native state *Q. agrifolia* is described as occasionally attaining a stature of 80 feet to 90 feet, but as a rule it is a low, rounded tree, with a short trunk, dividing a few feet up into large, spreading limbs. It carries a dense head of foliage of darkest green, the leaves being roundish-oblong and from 1 inch to 2½ inches long. When young they are coated beneath with a grey down, but as they get older this turns brown and falls off except in the axils of the veins. The leaves are usually toothed, but sometimes are nearly or quite entire. The acorn averages about 1 inch in length, and is narrow and tapers to a

point; the cup encloses about one-third of its length. In parts of California it appears to be very common, and the seeds are used as food by the Indians. In regard to its value in the Californian landscape, Sargent says ("Silva of North America," t. 403): "The valleys and low hills of the California coast owe their greatest charm to this Oak, which, dotting their covering of vernal green or their brown summer surface with its low, broad heads of pale contorted branches and dense foliage, gives them the appearance of beautiful parks."

*Q. alnifolia* (the Golden Oak of Cyprus).—When it was first introduced, now a little over twenty years ago, doubts were expressed as to this species proving hardy in this country. Judging, however, by its behaviour at Kew during that time, I think we may conclude that it will withstand any cold we are likely to experience in the London district, and for the warm south-western counties it is admirably adapted. But, like several of the evergreen Oaks, whilst it has proved unexpectedly hardy, it is very slow-growing. It is a native of the mountains of Cyprus, and is a remarkably distinct species. From all other hardy Oaks it is at once distinguished by the deep yellow down or felt that covers

the lower surface of the leaves. It is on the young leaves that this is brightest and most effective, but probably it is never so highly coloured out of doors here as it is in its warmer native country. There are two plants at Kew—one in the Oak collection, the other in the Himalayan house, and the latter has the golden colour much more developed. The leaf is stiff and hard, and is usually almost round, with a mucronate tip and crenately toothed margins, the upper surface dark green. The acorns are curiously shaped, being about  $1\frac{1}{2}$  inches long and one-eighth of an inch to half an inch broad, and broadest towards the top; they are somewhat club or truncheon-shaped. There are said to be several forms of this Oak in Cyprus, varying more especially in the shape of the leaf, but all have the beautiful golden under surface.

*Q. Ballota* (Sweet Acorn Oak).—There is an old tree of this species in the Kew collection about 30 feet high, but like so many of the evergreen Oaks it is a very rare tree in British gardens. It belongs to the *Q. Ilex* group and bears some resemblance to the var. *Gramuntia*. The leaves are about  $1\frac{1}{2}$  inches long, usually slightly pointed, but often almost round, the margins set with fine teeth; from the leaves of *Q. Ilex* they differ in not being covered with

felt beneath, but in having tufts of down in the axils of the veins. The tree has a dense head of rounded form, and does not grow anything like so fast as *Q. Ilex*. The Acorn is rather larger than in that species, the base enclosed in a hemispherical cup. Loudon says there are vast forests of this tree on the mountains of Algeria and Morocco, and that the Acorns are used as an article of food by the Moors. It is a native also of Spain and Portugal.

*Q. chrysolepis* (Maul Oak).—So few specimens of this Oak have been introduced to this country that it is scarcely possible yet to judge of its value. It is, at any rate, well worth trying in the south-western counties, having



HEDGE OF THE TREE MALLOW (*LAVATERA TRIMESTRIS*).

lived outside at Kew and at Coombe Wood for several years past. It is a native of the coast ranges of California, and was discovered by Hartweg near Monterey in 1846. In its native state it is said by Professor Sargent to be "surpassed in majestic dignity and massive strength by no other American species except the Live Oak of the South Atlantic and Gulf States" (*Q. virens*). At low elevations it is 40 feet to 50 feet high, with a short trunk 2 feet to 5 feet in diameter and immense spreading limbs. The heads of single specimens measure as much as 50 yards across. The species, however, becomes shrubby at the highest elevations. On young trees the leaves are elliptical or oblong, 1 inch to 2 inches long, the margins set with numerous spiny teeth. As the tree gets older they become less toothed and are finally entire. The young shoots and the under surface of the unfolding young leaves are covered with a close down of golden colour which becomes dull with age.

Var. *muciniifolia* is the form that occurs at high elevations. It is a shrub 2 feet to 3 feet high, and forms dense thickets. The leaves are 1 inch long, entire, and rather like those of a small-leaved *Phillyrea*.

Kew.

W. J. BEAN.

(To be continued.)

## THE FLOWER GARDEN.

### LAVATERA TRIMESTRIS.

AMONG annuals there are few that make such a magnificent display in the flower garden as *Lavatera trimestris*. Under good cultivation the plant reaches a height of 3 feet or 4 feet, and produces an abundance of bright rose Mallow-like flowers. Of tall-growing annuals this one perhaps is best worth planting. To see it at its best a large group should be made of it. In the gardens at St. Fagan's Castle in Glamorganshire, where annual flowers

are a feature, and make a wonderful show in the month of August, *Lavatera trimestris* is largely made use of. There are many big masses of it, which when in full bloom in August form a delightful feature in the garden and grounds. It also makes an excellent summer hedge, as may be seen from the accompanying illustration. To make a hedge of this plant is quite an uncommon practice, yet it is one to be recommended, both from its rarity and also the success which attends it. As with many other annuals, this *Lavatera* must be well grown or the results will be unsatisfactory,

and few plants, I think, succeed in giving more complete dissatisfaction than badly-grown annuals. It is better to sow the seed in boxes in a cold frame than to sow in the open border. The seedlings can then be looked after much better, and may be encouraged to make strong little plants before being put out in the border. It is important, too, that the soil of the border or bed should be well dug and made suitable as a rooting medium; it is not advisable, however, to make it very rich by manuring, for in good land Mallows have a tendency to grow strongly and flower but little. I have grown this Mallow on very poor land, and it has flowered very freely, but the plants were stunted in growth and the foliage poor; in fact, most of the leaves had fallen by the time the flowers opened. This is not what one wants, however, so that it is a mistake also to plant the seedlings in impoverished soil.

In THE GARDEN for January 22, 1898, a coloured plate was given of *Lavatera trimestris* and *L. t. alba*, and also the following particulars concerning it: *L. trimestris* is a native of Southern France, Spain, Morocco, and most of the countries that surround the Mediterranean Sea. It was first introduced into Britain in 1633, and is certainly one of the showiest of hardy annuals. It grows about 3 feet high; the leaves towards the base of the stem are larger



and more rounded than those near the top, where they become narrow, pointed, and lobed. The flowers are each 3 inches to 3½ inches in diameter, and in the typical plant are of a bright rose colour with a patch of maroon in the centre. In the variety *alba* they are pure white. The flowering season extends from July to September. The flowers are charming for indoor use. The greater part of the stem, with its open and unexpanded blossoms, should be cut and arranged in vases, &c., in which the blooms will continue to open and remain in full beauty for several days. The plant is worth growing in a reserve plot for this purpose alone. The seed, which can be purchased for a few pence from any seedsman, may be sown in March or early April on the border where the plants are desired to grow and flower, thinning them out when an inch or two high.

A. H. P.

### A WHITE NERINE.

I AM sending you herewith a water colour painting of the most beautiful Nerine I ever saw, and which has just bloomed in my conservatory. The colour is of snowy whiteness, rivalling even in purity the white of the *Watsonia alba Ardernei*, and, like its close relative the ordinary *Nerine sarniensis* (should be *capensis*), its corolla has a most beautiful sheen—not golden, as in the ordinary variety, but resembling frosted silver. The original bulb was discovered in a valley near Caledon, some 90 miles from Cape Town, a single plant growing amongst thousands of the pink variety, so it is a true *lusus naturee*. It has seeded freely with me, and I am sending a few of them to the Nerine specialist, Mr. Elwes, hoping he may succeed in further hybridising them.

H. M. ARDERNE.

Cape Town.

## TREES & SHRUBS.

### ELÆAGNUS MULTIFLORUS.

**M**OST of the cultivated species of *Elæagnus* are well worth growing in gardens, some for the leaves, others for the flowers, and others, again, for both. *E. multiflorus* belongs to the latter set, and a third recommendation may be urged in its favour, for the fruit is very ornamental, and is occasionally used for culinary purposes, jelly being made from it. It is a native of China and Japan, and has been known under several names, *E. longipes* being the most common. Under ordinary conditions it makes a bush 8 feet or so high and 10 feet or more through, growing naturally into a symmetrical specimen, but with a free and graceful outline. The leaves are usually deciduous, but sometimes in mild winters and in places not visited by severe frost it is almost, if not quite, evergreen. They are silvery in appearance, especially on the

under surface, which is marked with small brown dots. The flowers are borne, usually singly, from the axils of the young leaves during April and May, and are cream coloured, dotted on the outer side with small brownish spots. Individually they are small, but what they lack in size is made up for by numbers. The fruit ripens in July, and is of a deep orange colour and acid to the taste. In America it has been grown for its fruit with some success, and certain forms have been selected with larger fruits.

W. D.

### ERICA MEDITERRANEA.

THIS Heath and its varieties are responsible for a very effective display at Kew at the present time, a large group being in flower within a short distance of the temperate house. *E. mediterranea* is found in the south-west of France, Spain, and the warmer parts of Ireland, and, according to London, it has been cultivated in British gardens for upwards of 400 years. When mature it forms a large bush, which occasionally attains a height of 10 feet; more often, however, it is found about half that height. Under cultivation it is not met with in quantity very often, probably through the fact of its being liable to injury from frost in severe winters. In London's description of it he says that plants at Syon, which had stood half a century and were above 10 feet high, were killed

to the ground by the winter of 1837-38. In places however, where very severe frost is experienced on rare occasions only, it is a plant well worth growing. Cuttings may be rooted in July and August, and in two years the young plants are large enough to place in permanent positions. Under ordinary conditions, at six years of age they will be from 1½ feet to 2 feet high, with a similar diameter. The flowers, which are rosy red, are borne profusely during April and May, being at their best for a period of six weeks. The best-known varieties are *alba*, with white flowers; *glauca*, having glaucous foliage (a plant, however, of little value compared with the others); *hibernica*, the Irish form; and *hybrida*, a low-growing hybrid claiming *E. carnea* for its other parent. This latter form is a prolific bloomer, and remains in good condition for four or five months. Early in December of last year a good number of flowers were open, and now (the end of April) it is still attractive, and during the greater part of the time it has been a perfect mass of red.

W. DALLMORE.

### FENDLERA RUPICOLA.

THIS is a very rare and interesting shrub, and in places where it does well a showy one also. At Kew a small plant is now flowering against the Orchid house wall, a much larger specimen in the open ground having not yet shown signs of blossoming. Two species only of *Fendlera* are known, the one under notice and *F. utahensis*. *F. rupicola* is found in South-West Texas, New Mexico, Utah, and Arizona, growing on dry rocks exposed to full sun. When mature it forms a fairly dense bush 4 feet to 6 feet high. The branches are very small and twiggy, and are clothed with tiny leaves, which are densely covered with soft grey hairs. The flowers are white and produced in May. They are curious by reason of the four petals being widely separated from each other, and also by their peculiar shape. They are white, with golden anthers. Although it was known to Mr. Gumbleton of Cork in 1882, according to the *Botanical Magazine*, it does not appear to have made much headway, for it was not included in the new plant lists until 1888. Hot summers appear to suit it better than wet ones like the last.

W. DALLMORE.

### DECIDUOUS MAGNOLIAS.

THE spring-flowering Magnolias have rarely been better than they are this year. They have escaped being cut by frost, which, in two years out of three, browns the tips of the petals before they are properly expanded. The plants in flower at the present time are *M. conspicua*, *M. Lennei*, *M. soulangeana*, *M. Alexandrina*, and *M. rustica flore rubra*.

*M. conspicua* (the Yulan).—This is a native of China and Japan, and bears pure white flowers nearly 6 inches across when expanded, and of good substance. They are borne in large numbers on old-established plants, but more sparingly on young ones.

*M. Lennei*.—This is one of a series of hybrids between *M. obovata* (purpurea) and *M. conspicua*. *M. obovata* is a Chinese species of no great ornamental value in itself, but the combination of the two species has resulted in several valuable garden plants, varying in a greater or less degree. *M. Lennei* is a strong-growing but



A WHITE NERINE.

(From a drawing sent by Mr. Arderne, The Hill, Claremont, Cape Town. About one-half natural size.)

rather straggling plant, with purple flowers, which are rather too large and heavy to be handsome.

*M. soulangeana*.—This is the commonest and the best known of the *conspicua* hybrids, and makes a handsome spreading tree 15 feet to 20 feet in height. The flowers are about the same size as those of *M. conspicua*, and are white and purple. The upper part of the flower is white, while the basal half is pale purple. It blooms freely as a large plant, and fairly well in a young state. *M. s. var. nigra* is a form with darker wood and deep purple-coloured flowers.

*M. Alexandrina*.—This is also a hybrid form, probably from the same batch of seedlings as *M. soulangeana*, which it much resembles in every way. The tree, however, has a more spreading and looser habit, and the flowers are about ten days later in opening and have a deeper purple colouring.

*M. rustica flore rubro*.—This is a form of Continental origin, and has undoubtedly been raised from *M. conspicua* and *M. obovata*, either as a direct hybrid or as a seedling from one of the existing forms. I have only observed for two years, but it seems to be a strong, upright grower and a free bloomer. The flowers are as large as those of *M. Lennei*, with the colouring of *M. Alexandrina*. The two latter are from a week to a fortnight later in flowering than the others.

Bagshot.

J. CLARK.

## A GARDEN IN SCOTLAND.

SUMMERVILLE, DUMFRIES, N.B.

ONE of the most interesting gardens in the immediate neighbourhood of Dumfries is that of Mr. James Davidson of Summerville, on the Kirkcudbrightshire side of the river Nith, and just on the outskirts of the burgh of Maxwelltown. Although not of great extent, it shows how interesting a garden may become when its owner is himself a lover of flowers, and takes a special interest in them. For a considerable number of years alpine plants have been favourites of Mr. Davidson, and the collection is a good one, although no attempt is made to cultivate these on elaborate rockwork. Simple rock beds on the grass—a capital way of growing many good alpine—are always interesting, and this is the system adopted with the greater number at Summerville.

Among the most prominent features is the collection of Saxifrages, which all do well. It includes the greater number of the best of the various sections. Among the most pleasing this year has been *S. apiculata*, which in large sheets has been very fine. Some of the choicer encrusted ones, such as *S. aretioides*, do very well. Alpine *Dianthi* are also successfully grown, *D. alpinus* being unusually fine in a small rock bed in front of the conservatory. The dwarf *Campanulas* are also rather largely grown, and other favourite genera are well represented. Among the others are *Synthyris reniformis* (excellently grown), hardy *Primulas*, *Orchis filifolia*, the Kilmarnock form of *O. maculata*, *Bryanthus erectus*, and many others.

Hardy border flowers are also favourites, and the borders, mainly in the walled garden, contain the majority of the best flowers of recent years, with choice old plants. Many flowers generally grown on rockwork find a congenial place in the borders, which are attractive at almost all times, beginning with the earliest bulbs and keeping up a constant succession until frost cuts down the last of the *Asters*. The *Eremuri* do well, and fine spikes of *E. himalaicus* are generally to be seen in the flowering season. The old double *Delphinium sibiricum* is very successful here. *Trilliums*, *Eryngiums*, *Rudbeckias*, *Erythroniums*, *Fritillarias*, *Spiræas*, majestic *Rheums*, *Helianthus*, *Achilleas*, *Narcissi*, including a fine form of *N. triandrus albus*, and many other bulbs are well grown. Mr. Muir, Mr. Davidson's head gardener, is entitled to much credit in this department, as well as in others, for the well kept condition of the borders. *Dahlias* and other half-hardy plants are also cultivated. Shrubs, including several *Bamboos*, do well in the grounds.

Another feature here is the collection of *Orchids*, for which new houses were erected a few years ago. Mr. Davidson spends much of his time among

these, and recently there is a considerable improvement in the appearance of the plants. The most numerous are the *Odontoglossums*, and in the *Odontoglossum* house are to be seen some fine forms of the best species. Some of these are from imported plants, but fine forms are purchased from time to time. The other *Orchids*, although hardly so well-coloured in their pseudo-bulbs and foliage as one has seen, are also very creditable, and recently some of the newer hybrid *Lælias* have been added to the collection. *Stove* plants are also rather numerous and good, while the greenhouse and conservatory stock shows a great improvement upon what it was a number of years ago. *Show Pelargoniums* and *Chrysanthemums* are generally well grown, the latter being mostly on the large bloom system. The other glass departments, such as the Peach house and the vinery, are looking well this year, while outdoor fruit and vegetables receive a due share of attention. It is seldom that a garden of its character in the neighbourhood of a provincial town such as Dumfries contains so many objects of horticultural interest. Since the writer first saw the garden, now a good many years ago, it has steadily grown in interest.

S. A.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE PRESERVATION OF OUR WILD FLOWERS AND FERNS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is certainly not wonderful that English public opinion is beginning to awaken to the necessity of doing something to check the threatened extermination of many of our rarer or more beautiful wild flowers and Ferns to the manifest detriment of the rural beauty of our land. When the vast and, comparatively speaking, sparsely-populated United States has already decided in several cases on taking legislative measures for such a purpose, our older and far denser population may well be considered to have rendered a similar course necessary. The damage done by the growth of towns and the steady advance of buildings seems inevitable. *Cyperus fuscus*, by no means an attractively-beautiful species, no longer grows on Felbrook Common, nor probably the beautiful *Simethis bicolor* on the outskirts of Bournemouth. Drainage and other agricultural and forestal operations are sure to exterminate some species, at least locally. Quarrying may also endanger rarities, such as *Arabis stricta*, on the gorge of the Bristol Avon. In such cases something may be done by transplanting or re-sowing beyond the reach of immediate harm. On the other hand, such needless trimming of our roadside strips of turf, as destroyed the only Northamptonshire locality for *Eryngium campestre*, or their replacement by stone kerbs, might be lessened could we only educate public taste and opinion in the matter. Though the cottagers may occasionally transfer most of such conspicuous species as *Lilium Martagon* or *Doronicum plantagineum* to their gardens, and though on the outskirts of almost every village children offend the eye by littering the ground with withering handfuls of picked flowers, rare or common alike, probably but little extermination has resulted from either of these two causes. Even the hooliganism of Nottingham "lambs" has no more exterminated *Crocus vernus* than have repeated hay harvests destroyed *Tulipa sylvestris* at Southgate. Trippers generally "go for" showy species, and more often pick the flowers than dig up

the roots. They seem, however, to have gone a long way towards exterminating so prolific a species as the Foxglove in Epping Forest. It is not, however, the tripper who is reducing our Primroses, or entirely eradicating most species of Ferns within a wide radius of our large towns. It is the trade collector.

I do not, however, think the scientific botanical collector is free from blame. There are private collectors who will gather fifty specimens of the rarities of Teesdale or the Lizard, and there are private herbaria in which one sees similar large suites of specimens of non-variable species, the only excuse for which is "exchange," which then becomes remarkably like trade. Nor should our charity in this matter begin and end at home. The collector who takes every bulb he can find of some new or rare species in the mountains of Portugal, Greece, or Asia Minor, though he may be beyond the reach of any possible British law, is as culpable as any of those whom we hope to punish for such action nearer home.

Though fully alive to the many difficulties in dealing with the matter preventively, there are four methods which at present commend themselves to me: First, the education of our children in school, and of adults by means of lectures and leaflets, in a greater respect for the beauty of wild nature; secondly, the adoption by all local natural history societies as one of their objects, "the discouragement of the practice of removing rare plants from the localities of which they are characteristic," and the appointment by every such society of a committee to report on plants in danger of extermination and the means of preventing it; thirdly, the establishment of gardens, like that of M. Henri Correvon at Geneva, for the cultivation of rarities; and, fourthly, that county councils should be empowered to enact bye-laws to prohibit (a) the rooting up of any plants within certain circumscribed areas, as indicated by notices, or (b) the rooting up or destroying of plants on other people's land in quantity, for purpose of sale or profit, throughout the area of their jurisdiction.

I must not trespass longer upon your space to dilate on these methods, so will only add that the last is that recommended by the Devon County Council on the motion of Mr. Hiern, and that for the third and the first part of the fourth I would suggest that the Lizard, Ben Lawers, and, perhaps, the New Forest and Upper Teesdale should be "proclaimed," and that gardens in the Channel Islands, Cornwall, and the Scottish Highlands would almost suffice.—G. S. BOULGER, Editor of *Nature Notes*, the Selborne Society's Magazine.

### CABBAGES BOLTING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Much has been written respecting this tendency in Cabbages, and many supposed causes have been given. After thirty-five years' observation I have come to regard it in the same light as Mr. Strugnell (page 312). During the past few seasons I have tried many varieties, sowing at different periods, planting early and late. This year we have 1,500 growing side by side, in five well-known sorts. Half the plants were from seed sown on July 23, the other half from seed sown on August 3. All were planted out when large enough on land that Onions had been grown on, without digging. The sorts are Mein's No. 1, Flower of Spring, First and Best, Ellam's Early Dwarf, with Veitch's Main Crop. Of First and Best only two bolted; Flower of Spring, six; Ellam's, fifteen; Mein's No. 1, rather a large number. Most of the bolted plants were in the first sowing and planting. When at Hackwood Park on April 20, and looking over the kitchen garden with Mr. Bowerman, we inspected the



BY THE HEATH PONDS.

(From "Old West Surrey." Longmans.)

Cabbage quarter—3,000 plants, all from seed sown the middle of July. The varieties were Ellam's Early and Flower of Spring chiefly; they were growing on ground (not dug) previously planted with Onions. They were planted out in two lots, the first as soon as the plants were large enough, the others about three weeks afterwards. Of the first planting 3 per cent. had bolted of Flower of Spring, while of Ellam's 25 per cent. had bolted. In the last planting scarcely a plant of Flower of Spring had bolted, and about 5 per cent. of Ellam's Early.

As all the plants were from the same sowing, this proves that bolting was not due to the time of sowing. We came to the conclusion that it arose chiefly from a coarse, strong growth. No doubt much depends upon the selection of stocks for seeding. I have proved on several occasions that plants raised from the same packet of seed sown in the middle of July were no more prone to bolt than when sown a month later. But there is an immense gain in the spring from early sown plants. This was plainly evident at Hackwood Park. At the time of my visit a good number of heads were cut, and many were ready. It is of considerable importance to clear the ground early. Mr. Bowerman intends planting Celery for autumn use. I shall use our land for Parsnips and Carrots, with Salsify and probably some Beetroot. As regards varieties, Mr. Bowerman does not intend growing Ellam's again, considering it no earlier than Flower of Spring. With me First and Best was ready first, although good heads could be cut from each variety at the end of April from the July sowing. Those from the August sowing are ten days or so later.

Forde Abbey, Chard.

JOHN CROOK.

### FEIJOA SELLOWIANA IN NORTH CORNWALL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent in THE GARDEN of the 14th inst. says of this fruit tree: "Being a native of Southern Brazil it is far from hardy in this country." It may interest your readers who are interested in sub-tropical fruits to know that I have a Feijoa growing out of doors on a wall in

my garden (North Cornwall). It has passed through the last two winters without any protection; it has never been cut in the slightest degree, and is now established and beginning to make good growth. It appears to be hardier than the Orange, and very nearly as hardy as the Olive.

ATHELSTAN RILEY.

### LILIUM PARKMANI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was pleased to learn from the letter of your correspondent A. G. Godman (page 302), that *Lilium Parkmani* is still in cultivation, for I had an idea it was long since lost, as I have not heard of it for many years. It was—or shall I say is?—a most beautiful Lily, raised in the United States by Mr. Parkman about the year 1866. According to the raiser it was obtained by fertilising some flowers of *Lilium speciosum* with the pollen of *Lilium auratum*. About fifty seedlings resulted, the first of which flowered in the summer of 1869. It proved to be a magnificent flower 9½ inches in diameter, resembling *auratum* in fragrance and form, and the most brilliant variety of *L. speciosum* in colour. In the following year the flower measured nearly 12 inches from tip to tip of the extended petals. It was the only one that flowered like this, all the other seedlings from the same pods being simply *L. speciosum*. To test the influence of the male parent on the second generation several of the others were fertilised with pollen of *L. auratum*, and of their progeny, some ten in number, one somewhat resembled *Parkmani*, though greatly inferior, while the others were again simply *speciosum*. Such, in short, is the early history of *Lilium Parkmani*, the stock of which all came from a single bulb. In time it crossed the Atlantic, the entire stock being purchased by the late Mr. Anthony Waterer, who obtained a first-class certificate for it at a meeting of the Royal Horticultural Society at South Kensington in the summer of 1880. It was my first introduction to this superb Lily, the memory of which is in no ways diminished by the long time that has elapsed since then.

H. P.

## BOOKS.

**Old West Surrey.**\*—It is impossible not to feel regret at the change which of late years has come over the life and habits of simple country folk. Invention following invention in quick succession has brought the remote rural districts into close contact with the artificial life of the great cities, and this influence on the character of the rural swain has not been for the best. In "Old West Surrey" Miss Jekyll describes in a delightful way the life of the working classes in that district, with which she has been familiar since childhood, and points out regretfully the gradual disappearance of all that lends such a distinctive character to rural life. Until about fifty years ago the inhabitants of villages were

entirely dependent on local materials and local labour for building, and so each district had a distinct style of its own. Nothing could be more picturesque than the old cottages of which we are shown many illustrations, with their tiled roofs and trailing creepers, and the quaint stone-paved paths. They were certainly not perfect, but, as Miss Jekyll says, "that is no reason why new cottages of the old pattern should not be made sound and wholesome and delightful to live in."

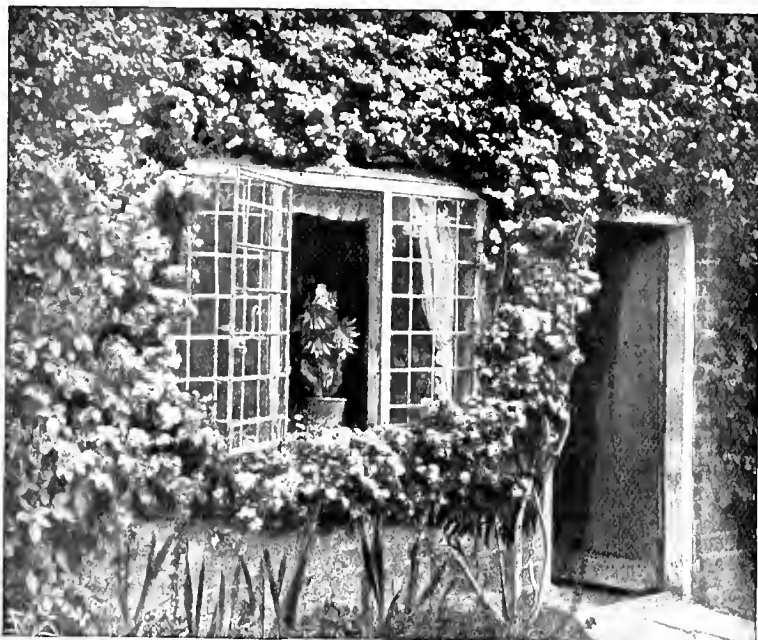
From the outside of the cottage and farm Miss Jekyll passes to the inside, and here the deterioration is still more marked. In olden days the cottagers provided themselves only with such furniture and utensils as were absolutely necessary, and they were solid and unpretentious. There was no vulgar attempt at display, and none of the cheap rubbish that is so easily obtainable nowadays. Yet where they could they indulged in ornamentation, as is to be seen from the elaborate carving on linen chests, or linen hutches, as they were more commonly called, and other articles of furniture. A utensil which we do not remember to have seen before is the "cat," of which there is an illustration on page 70; but still more curious is the bed-wagon on page 72. The writer describes it as follows: "An odd-looking contrivance generally in use in farms in the olden days was the bed-wagon. It is for warming a large bed, and must have done its work most efficiently. The one shown is 3 feet long, but they were generally longer. The woodwork is all of oak, the bent hoops passing through the straight rails, which are tied together with round rods. The whole thing is light and strong. A pan of hot embers drops into the trivet, which stands on a sheet-iron tray. Another sheet of iron is fixed under the woodwork above the fire, so that there is no danger of burning the bed." The chimney-crane on page 82 is a beautiful example of ornamental work, as are also the fire-dogs and fire-backs which were in general use in the farmhouses.

The methods of lighting the cottages before the invention of matches were necessarily of the most primitive description. Miss Jekyll gives an interesting description of the preparation and use of rushlights until the tallow candle began to take their place. If one may judge by the samplers of which photographs are shown, the cottagers must have been very clever needlewomen, and if they would take such pains with what was purely ornamental, one can imagine what care they would expend on what had also to serve a useful purpose; indeed, the patchwork quilts and smocks shown by

\* "Old West Surrey." By Gertrude Jekyll. Published by Longmans, 39, Paternoster Row, E.C. Price 13s. nett.



THE EVERLASTING PEA AT A COTTAGE DOOR. (From "Old West Surrey." Longmans.)



BANKSIAN ROSE ROUND A COTTAGE WINDOW. (From "Old West Surrey." Longmans.)

Miss Jekyll give ample evidence of this. Many of the rural industries are dying out. There is no longer much use for the hurdle-maker, for wire netting is cheaper and just as effective as the wattled hurdles which used to enclose the sheep folds. Another industry now almost extinct in this neighbourhood was the catching of moles with the old wooden mole-trap, which is here described in detail. The old country folk who still retain the speech and manner of the earlier part of the nineteenth century are thus described by Miss Jekyll:

"They are good to have to do with, these kindly old people. Bright and cheerful of face, pleasant and ready of speech, courteous of manner, they are a precious remnant of those older days when men's lives were simpler and quieter. Free from the stress and strain and restless movement, and endless hurry and struggle against time, and from all the petty worrying distractions that fret the daily life of the more modern worker. So pleasantly does this make itself felt, that to be with one of these old people for an hour's quiet chat is a distinctly restful and soothing experience."

The disappearance of old words and local expressions, together with that of any distinctive form of dress, is especially deplored by the author. Perhaps one of the pleasantest chapters in the book, and one of the most beautifully illustrated, is that on cottage gardens, and this we reproduce:

"Cottage folk are great lovers of flowers, and their charming little gardens in villages and by the roadside are some of the most delightful incidents of road travel in our southern counties.

"The most usual form of the cottage flower garden is a strip on each side of the path leading from the road to the cottage door; but if the space is a small one it is often all given to flowers. Sometimes, indeed, the smaller the space the more is crammed into it. One tiny garden that I need to watch with much pleasure had nearly the whole space between road and cottage filled with a rough staging. It was a good example of how much could be done with little means but much loving labour. There was a tiny greenhouse . . . that housed the tender plants in winter, but it could not have held anything like the quantity of plants that appeared on the staging throughout the summer. There were Hydrangeas, Fuchsias, show and zonal Geraniums, Lilies, and Begonias for the main show; a pot or two of the graceful Francoa and half-hardy annuals cleverly grown in pots; a Clematis smothered in bloom over the door; and, for the protection of all, a framework to which a light shelter could be fixed in case of very bad weather.

"It must have given pleasure to thousands of passers-by, to say nothing of the pride and delight that it must have been to its owner.

"There is scarcely a cottage without some plants in the window; indeed, the windows are often so much filled up with them that the light is too much obscured. The wise cottagers place them outside in the summer to make fresh growth and gain strength. . . .

"The old double white Rose, brother of the pretty pink Maiden's Blush, never seems so happy or looks so well as in a cottage garden, and the old kinds of cluster Roses are great favourites.

"The deep-rooting Everlasting Pea ('Winter-bean' is its local name) is a fine old cottage plant, and Nasturtiums ramble far and wide. Nowhere else does one see such Wallflowers, Sweet Williams, and Canterbury Bells as in these carefully-tended little plots.

"It is a sign of careful guiding and good upbringing when the little boys of a family are seen on the roads with old shovels and little improvised handcarts collecting horse manure. It means that the plants will have a nourishing surface mulching that will be much to their benefit.

"China Asters are great favourites—'Chaney Oysters' the old people used to call them—and Dahlias, especially the light formal show kinds, are much prized and grandly grown.

"Sweet-smelling bushes and herbs, such as Rosemary, Lavender, Southernwood, Mint, Sage, and Balm, or at least some of them, were to be found in the older cottagers' garden plots; perhaps Southernwood was the greatest favourite of all. An old man said that when he was young he used to put Bergamot (Monarda) into his hair-grease. 'Just did please the girls,' he said.

"Here and there is a clipped Yew over a cottage entrance, but this kind of work is not so frequent as in other parts of the country.

"These little gardens always seem to me to speak of the joy of life and cheerfulness of disposition, that are such fine attributes of the character of our genuine country folk. It was less clearly shown two generations ago, when men's lives were less hurried and more concentrated, and when the simple country life was fuller and more satisfying."

**Gardening for Beginners.**—We have received the third edition of this book for beginners. So earnest is the raiser of new flowers in these days that a book is quickly out of date, and the introductions from abroad of beautiful new trees and shrubs make it imperative to alter considerably the lists of things for even the beginner when a new edition is called for. Wherever alterations were deemed necessary, these have been made and nearly 100 illustrations added, without increasing the size of the book. This has been accomplished by careful revision.

**Parkinson's "Paradisus."**—Messrs. Methuen's reprint of John Parkinson's "Paradisus in Sole Paradisus Terrestris" will be produced in the exact size of the original, and will contain all the old illustrations to the number of over 100. This edition is limited in number, and will be

† "Gardening for Beginners." By E. T. Cook. Third edition. Published from the offices of *Country Life*, and by Messrs. George Newnes, Limited. Price 12s. 6d.

issued at £1 10s. net, this price being raised to £2 2s. net after the day of publication. An edition of twenty copies on Japanese paper has also been printed.

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

### PRIMULA SIEBOLDI.

Mr. Cornhill sends from Byfleet a charming gathering of *P. Sieboldi*, the flowers in some cases prettily fringed, and all of good colour—bright crimson, white, lilac, and pink. The seedlings were very fine. Mr. Cornhill writes: "The flowers were taken from a bed of plants some 30 feet square; the soil is light and the position open."

### CINERARIAS.

Mr. George Merry, The Ashe Gardens, Etwell, Derby, sends a brilliant selection of Cinerarias, with the following interesting note: "Of all flowers to make a fine show in the conservatory there is nothing to surpass the Cineraria. The plants we now have in bloom were grown from seed supplied by Messrs. Webb of Wordesley, Stourbridge. The habit of the plants, the size of the flowers, and the various colours cannot be surpassed. They have now been in flower for three or four weeks, and are still quite fresh. I make two sowings—the first at the end of April, and the second at the end of May. I always use good turfy loam, with about half rotten manure and leaf-mould, and a good sprinkling of silver sand. I sow the seed in shallow boxes, and prick the seedlings out into small pots as soon as they are large enough, potting them on into larger pots when the small pots are full of roots, finally potting into 8-inch pots for flowering. The soil used is rather rough for the final potting. I always grow them in cold frames in a shady position all through the summer. About the end of November I place them in a cold vinery and keep them very cool till they flower. In this way I do not often have to funi-gate, as I am not troubled with green fly."

### A SEEDLING PRIMROSE.

"A North Man" sends a few flowers of a hardy Primrose that appeared among a lot of self-sown seedlings last spring. It is certainly a striking variety. The stem is of great vigour, and the flowers abundant and a good strong red, with yellow centres. It is a flower we recommend "North Man" to select and try and get some other rich colourings from, not running, however, into magentas and purples.

### FLOWERING SHRUBS FROM IRELAND.

Mr. T. Smith, Daisy Hill Nursery, Newry, sends flowering shoots of several beautiful shrubs. Among them are *Azalea Vaseyii*, the growths leafless, but bearing pretty rich pink flowers, mottled with red in the centre; *Exochorda grandiflora*, whose pure white five-petalled flowers and light green foliage associate very pleasingly; *Cerasus Drumreaskae*, which, we are told, is "on its own roots, and runs about like *Amygdalus nanus* or a Raspberry"—it has double white flowers; *C. serrulata rosea* is full of rosy pink blossoms and buds, and a plant of it must make a brave show; and *C. s. alba* is not so free-flowering, judging from the shoots sent, although its large white single blossoms are very attractive.

## KEW NOTES.

## INTERESTING PLANTS IN FLOWER.

*Temperate House.*

AOTUS GRACILLIMA, *Asystasia bella*, *Peaumontia grandiflora*, *Boronia pulchella*, *Corydalis thalictrofolia*, *Datura chlorantha*, *Macleania insignis*, *Pentapterygium serpens*, *Pimelia rosea*, *P. spectabilis*, *Psoralea pinnata*, *Rhododendron Dalhousiae*, *R. Keysii*, *R. Nuttallii*, *R. triflorum*, *Senecio auriculatissimus*, *Solanum seafortianum*, *Thomasia purpurea*, and *Tibouchina heteromalla*.

*T Range.*

*Chirita hamosa*, *Medinilla magnifica*, *Ornithogalum lacteum*, *O. thyrsoides*, *Passiflora racemosa*, *Scilla plumbea*, *Stigmaphyllon ciliatum*, *Tabernaemontana longiflora*, *Tillandsia regeliana*, *T. splendens* var. *major*, and *Utricularia montana*.

*Orchid Houses.*

*Bulbophyllum quadrifarium*, *Chloraea virescens*, *Cymbidium lowianum*, *Dendrobium Bensonae*, *D. chlorops*, *D. secundum*, *D. thyrsiflorum*, *D. undulatum*, *Epidendrum Hartii*, *Lycaste crinita*, *Masdevallia Chimera* var. *backhouseana*, *M. C.* var. *Ræzlii*, *M. C.* var. *severa*, *Oncidium altissimum*, *O. leucochilum*, *O. phymatochilum*, *Selenipedium grande*, *S. Titanum*, *Sobralia macrantha*, and *Vanda teres*.

*Greenhouse.*

*Astilbe japonica*, *Begonia semperflorans* vars., *Celsia Arcturus*, *C. cretica*, *Helichrysum humile* var. *purpureum*, *Latbyrus pubescens*, *Senecio cantabrigdensis*, *S. kewensis*, *S. Lady Thiselton-Dyer*, and *S. Moorei*.

*Aroid House.*

*Amherstia nobilis*.

*Alpine House.*

*Achillea ageratifolia*, *Armeria Welwitschii*, *Dodecatheon Jeffreyi*, *D. media*, *Gentiana verna*, *Hesperochiron californica*, *Lychnis alpina*, *Orchis moris*, *Phlox divaricata*, *Primula cortusoides*, and *Silene pennsylvanica*.

*Rock Garden.*

*Adonis pyrenaica*, *Anemone pratensis* var. *nigricans*, *Cheiranthus Allionii*, *C. alpinus*, *Cornus canadensis*, *Corydalis nobilis*, *Daphne Cneorum* var. *major*, *Epimedium muschianum*, *Erodium pelargoniflorum*, *Lathyrus luteus* var. *aureus*, *Orchis papilionacea*, *Phlox reptans*, and *Saxifraga muscoides* var. *atropurpurea*.

*Walls.*

*Adenocarpus decorticans*, *Anthyllis Barba-jovis*, *Ceanothus velutinus*, *Choisya ternata*, and *Ribes viburnifolium*.

*Arboretum.*

Trees and shrubs are now at their best, and a large number of species of most of the following genera are to be seen: *Berberis*, *Cytisus*, *Elaeagnus*, *Erica*, *Prunus*, *Pyrus*, and *Spiræa*; also *Daphniphyllum macropodum*, *Enkianthus japonicus*, *Fothergilla major*, *Kerria japonica*, *Purshia tridentata*, and other things.

## GARDENING OF THE WEEK.

## FLOWER GARDEN.

## WINDOW-BOXES.

UNLESS they are fixtures, an effort should be made to plant the window-boxes in the potting shed, and keep them under cover for a few days before putting them in their places. As a big display will have to be made from a comparatively small rooting space the compost used must be fairly rich and contain a good proportion of loam. A thin layer of crocks covered with rough pieces of loam should provide sufficient drainage. Plant firmly.

The class of plants employed will depend largely on the requirements of the place. White

Marguerites and scarlet Geraniums, with pink Ivy-leaved Pelargoniums trailing over the fronts of the boxes, are very pretty, but how tired one gets of this combination. As a rule, whatever is used must be of a character to produce a display throughout the summer and autumn. Where sweet-scented flowers and plants are esteemed we must depend largely on such as *Heliotrope*, *Lippia citriodora*, and the scented Geraniums. An occasional plant of the Pine-apple scented *Salvia rutilans* will be appreciated, and will flower freely during a mild autumn. Fuchsias and Ivy-leaved Pelargoniums are too brittle for use in windy localities, but *Manglesi variegata* will withstand more wind than most varieties. In such localities the old Tom Thumb and West Brighton Gem Pelargoniums are useful for producing a continuous display of colour, and the Creeping Jenny is invaluable as a trailing plant.

## RHODODENDRONS.

These greatly benefit by an early removal of the seed-pods. Where large numbers are grown it is sometimes an almost impossible task to go over them all, but if a start is made as soon as the earliest have finished flowering, and the work continued at convenient intervals, such as during showery weather, much may be accomplished. For the first four or five years after planting it is imperative that the seed vessels be annually removed. Plants out of health will improve if a mulch, even though only of leaf-soil or grass from the lawn-mower, be applied.

## ANNUALS.

Many of the first sowing now require thinning. In view of the unusual numbers of slugs and snails which are about this work should be done gradually or there will probably be blanks. Shirley Poppies, Mignonette, &c., should finally be allowed ample room for development, and more seed should be sown for future displays. The annuals raised in heat and pricked off in boxes are now sufficiently hardened to be transferred to their flowering positions. If this can be done during dull or showery weather the check of removal will be slight.

*Pencarrow Gardens, Bodmin.*

A. C. BARTLETT.

## FRUIT GARDEN.

## EARLY PEACHES.

SUCH varieties of Peaches as *Alexander* and *Waterloo*, *Advance* and *Cardinal Nectarines*, started in January are now ripe or ripening. The atmosphere of the house must be kept drier, with a freer circulation of air. As soon as all the fruit is gathered syringe the trees with some insecticide to clear the foliage of red spider, and endeavour to keep the leaves healthy by syringing. Keep the ventilators wide open night and day, and give the trees a good watering and occasional waterings with liquid manure. Remove any laterals and leaves which shade the fruits, and keep a circulation of warm air to ensure high colour and good flavour.

## SUCCESSION PEACHES.

The night temperature during the stoning period should not exceed 60°, with free ventilation. Commence to air early at 65°, and increase as the temperature rises. Tie down the shoots and pinch the laterals; remove shoots that carry no fruit, and so avoid crowding the growths. See that the trees do not suffer for want of water at the roots, and give liquid manure water to old trees carrying heavy crops, care being taken not to overfeed young trees. Keep the trees clear of fly and thrips by light fumigation with XL All and frequent syringings. Mulch the borders with half-decayed manure or horse manure. Thin the fruits on trees approaching stoning, leaving two on strong shoots and one on weaker ones. Keep the shoots thinly trained, so that plenty of light may reach the fruits. Pinch any strong-growing shoots to keep both sides of the trees uniform. A temperature of 65° to 68° at night will be suitable, rising to 85° by day with sun-heat.

Disbud the trees in late houses, and thin the fruits freely; tie down the shoots as they increase in length; syringe the trees night and morning,

unless the nights are likely to be cold. If the trees are grown in unheated houses close early to allow the foliage to become dry before nightfall.

## FIGS.

Trees grown in pots, of such varieties as *St. John's*, of which the fruit has been gathered must be well syringed to keep the foliage clean, and well watered. Early planted out trees whose fruits are approaching maturity will require less water, with a freer ventilation and less direct syringing. When the first crop is gathered syringe the trees freely, and give liberal supplies of liquid manure to trees requiring it. Thin the fruits freely, tie down the shoots, remove any weak growths, and allow the fruits the full benefit of light and air.

*Impney Gardens, Droitwich.*

F. JORDAN.

## KITCHEN GARDEN.

## FRENCH BEANS.

THE weather and state of the soil are now such that a first sowing of these may be put in. In cold, wet gardens it is advisable to wait until the soil is in proper condition before sowing, otherwise many of the seeds will rot, and those that do come up will be weakly. Choose a south border, and for the first sowing sow rather thickly. Canadian Wonder is a good sort for this sowing. In the event of cold winds being prevalent when the plants come up place some leafy twigs along the rows. A row of the climbing variety may also be got in, as this produces large, handsome pods, similar to the dwarf sorts. I think it a mistake, however, to depend on the climbing Bean for a crop, as in some gardens it is far from being satisfactory. Plants of the dwarf sorts raised under glass for planting out may now be got in if well hardened. Plant in a warm sheltered spot, and if the ground is dry give water when necessary till they become established. Those growing in pits or frames will require plenty of water and careful airing.

## SEAKALE.

An inspection of this crop should now be made. The new plantations will require to be disbudded. Remove all shoots but one—the strongest—as this will form the crown for forcing next season. Permanent beds may be given a dressing of old manure before growth is too far advanced.

## EARLY POTATOES.

The early crops in pots will soon be over. Those growing in frames will come into use shortly. The sashes may now be taken off the plants altogether, and if the plants are likely to be twisted about by winds a stake should be placed to each until they show signs of ripening. Early Potatoes coming through the soil should be frequently hoed through to check the growth of seedling weeds, now showing in plenty. Loosen the soil between the rows before earthing up the crop. This should be done when the plants are about 6 inches high. If any artificial manure is to be applied it may be spread on the surface just before hoeing.

## CHICORY.

Where this is in demand it may be sown now safely, there being not the same danger of the plants running to seed as from April sowing. Any fairly good soil is suitable if not shaded by trees. The rows may be 15 inches apart, thinning early to 6 inches between the plants.

## ENDIVE.

If this should be required early in the autumn a small quantity of seed may be put in now. Sow thinly in shallow drills, and transplant carefully to a rich soil 1 foot apart each way.

THOMAS HAY.

*Hopetoun House Gardens, N.B.*

## INDOOR GARDEN.

ALTHOUGH the weather until now has scarcely been favourable to placing *Chrysanthemums* in their summer quarters out of doors, there must be no further delay in doing this or their shoots will become weak. Prepare at once for potting these plants into their flowering pots; the compost to be used may consist of lumps of good fibrous loam and

half-decayed leaf-soil in equal parts, with half a part of coarse sand and a little broken charcoal. To every barrowful of the mixture use one-fourth part of horse manure, and a 5-inch pot full of soot to every four barrow-loads.

Upon the strength of the plants will depend the sizes of pots they should be given, but generally 8½-inch to 9-inch pots are large enough. These should be drained well, and on the top of the crocks sprinkle a few ½-inch bones. Pot firmly, and in doing so place the top of the old ball well below the surface of the new soil. Directly the plants are again established stop the shoots of those that require it for the last time. Inserting a few tops of shoots as cuttings, three in a 3-inch pot, and rooting them in a close frame is a capital method of producing a few useful decorative plants, which after being rooted should be given a shift into rather larger pots.

#### COCKSCOMBS.

Plants that have been raised from seeds sown during February or early in March are beginning to show their combs, and are ready for being removed from small pots into their flowering pots. Equal parts fibrous loam and leaf-mould, with a little dried cow manure in a lumpy state and a small proportion of coarse sand, will form a capital compost; and to keep the plants dwarf they should be potted rather deeply in the new soil.

To encourage early root action, plunge the pots in a gentle bottom-heat, or place them on a shelf close to the glass in a house having a temperature of 60°, and for a few days afford them shade from strong sunlight, and syringe abundantly to maintain a moist atmosphere. Afterwards remove them to a cooler temperature, where they can be given plenty of air and light, as well as a liberal supply of liquid manure to assist them to develop fine large combs.

#### CELSIA ARCTURUS.

The cool greenhouse, where plenty of air can circulate about the plants, or even a cold frame are positions in which to grow this plant successfully. To form large specimens place three plants in a pot, but for general decorative work and for grouping they are better grown singly.

#### CINERARIAS.

Plants raised from seeds sown at this time usually do best, as generally they grow away without a check. Sow the seeds in well-drained pans filled with sandy soil, and place them in a close, but not a high temperature, where plenty of shade and moisture can be afforded.

Tranby Croft, Hull.

J. P. LEADBETTER.

#### CHRYSANTHEMUMS.

##### FINAL POTTING.

By the time these lines are in print the great majority of the plants which have been nursed along with so much care during the past three or four months should now be strong and sturdy, well rooted, and quite ready to be shifted on into whatever size pots it is intended to flower them in. A difference of opinion exists among first-class growers as to the amount of pot room required to produce the best high-class flowers. I never was an advocate for large pots, and unquestionably some of the finest flowers ever seen have been obtained when finished in 7-inch, 8-inch, and 10-inch pots, but when the pot is small the strictest attention is needful in the way of feeding and watering during the summer months.

##### COMPOST.

This should be always well prepared some days before it is used, so that it can be turned often and the various ingredients thus become thoroughly incorporated; but it often happens that owing to pressure of work at this very busy season of the year this has to be put off till the last moment, and when this is so too much care can hardly be taken. Frequently the mixture is used when either too wet or too dry, and this may mean that the plants will receive a serious check. A happy medium should always be observed. Good fibrous loam of a medium texture is certainly the principal ingredient, that cut from an old pasture and

stacked about six months ago being preferable. At least three parts should be used out of four, one part being made up of finely-sifted horse manure, well-decayed leaf-soil finely sifted, and sufficient road sand and finely-broken mortar rubble to render it porous. Add to every two bushels one 6-inch pot full each of ½-inch or ¾-inch bones, Thompson's Plant Manure, and finely-crushed charcoal.

##### DRAINAGE.

One of the most important items in connexion with successful Chrysanthemum culture is a free and uninterrupted waterway, consequently the crocks used should be thoroughly clean, dry, and carefully arranged. Three sizes at least should be used, the top layer being very fine but free from dust. A sufficient layer of clean fibre taken from the loam heap should be placed over it, and on this scatter a few ½-inch bones. See that each plant before potting is not dry, and watering should be done some hours before turning them out. Pot firmly, using a proper potting stick for the purpose, and when the soil is in good condition this can hardly be practised too severely except the surface, which should receive a good sprinkling of the finest soil, not rammed. Stake each plant neatly as the work proceeds, correctly label, damp over the plants and soil with a fine rose watering-can, and arrange them in beds in a sheltered position where they can be frequently syringed and attended to until they recover from the slight check which they necessarily must have received. Keep the points constantly dusted with tobacco powder, which should be applied during the evening and thoroughly washed out the following morning. This does no harm, and prevents the foliage getting crippled with aphids and thrips. Keep a sharp look out for the leaf-miner, which often at this season does much damage to the lower leaves. Soot quite fresh is obnoxious to the fly, and if applied often sufficiently early in the season it will to a great extent prevent them from depositing their eggs; but immediately the young maggot is noticed to be working between the tissues of the leaves carefully pick it out with a pointed stick. About three or four days after potting the plants should be thoroughly watered in, filling up the pots at least three or four times, thus making quite certain that every particle of the soil becomes moistened, after which, until the plants become thoroughly rooted, the greatest care in watering must be exercised. Once allow the soil to become sour, and the plants suffer considerably.

E. BECKETT.

Aldenham House Gardens, Elstree.

## NOTES FROM THE MARKETS.

**V**ERBENA KING OF SCARLETS is one of the very best for pots. Mr. Sweet of Whetstone is now sending it to market. The plants are in 4½-inch pots, and from 8 inches to 10 inches high, carrying a good number of trusses of bloom. The individual flowers are not quite so large as those of the variety Miss E. Willmott, but they are of a peculiar rich crimson-scarlet. It should make a most valuable plant for bedding as well as for pot work, and it is evidently a favourite with the florists, for it sells most readily at a good price. Several growers are now bringing in the variety Miss E. Willmott, those on Mr. E. Rochford's stands being remarkably well flowered.

*Cotyledon pyramidalis*.—Some years ago this was well grown at the Royal Horticultural Society's Chiswick Gardens. It is a most useful plant at this season of the year, yet very few market growers seem to have taken it up. Mr. Sweet is now sending in some well-grown plants, with the pyramidal racemes of white blooms fully 18 inches high. Some plants will produce offsets instead of flowering, and the strongest of these, if potted and grown on in a cold pit, flower the following spring, or the smaller ones may require to be kept until another year. They may be

potted in any good loamy soil, the addition of a little old mortar rubbish will be beneficial. They may be taken into warmth when the flower-spikes show, otherwise they are better in a pit if frost can be kept from them.

*Carnation Duchess of Fife*.—This is still a favourite with many market growers, and just now cut blooms of it are very plentiful. Although belonging to the border varieties, it may be grown in pots for early spring-flowering, and succeeds very well. The soft pink with a silvery shade is a great favourite with florists. Mrs. F. W. Flight is a newer variety which I grew last year, and found a most useful Carnation. It is a rather deeper shade of colour than the above, with broad, smooth petals. Princess May is one of the most useful of the Malmaison section. It is one of the best growers, and the large, bright pink blooms always find a ready sale in the market. On a recent visit to Messrs. H. Low and Co.'s Bush Hill Park Nursery I found they were devoting a large house almost entirely to the culture of this one variety, and the plants were all in the most promising condition.

*Yellow Calceolarias*.—The old floribunda seems to have quite gone out of cultivation, at least, as far as its culture for Covent Garden Market is concerned, but in Golden Gem we have an equally good one, though perhaps it does not produce such large heads of bloom. It has the advantage of being of better constitution. Growers are now bringing this in fine condition well-flowered plants in 4½-inch pots. On Saturday last there was a good demand for them at higher prices than are usually made for this class of plants. A. H.

## A FEAST OF TULIPS.

As I stood on a recent warm afternoon in the midst of the great expanse of May-blooming Tulips Messrs. Barr have at Long Ditton, I realised that these flowers have a special glory. The April Tulips, rich in colour as they are, are somewhat dwarf and generally stiff. They may do well for spring bedding, but they lack the grace and brilliancy of the later Tulips. How wonderfully these so-called Darwins, though I think the term May Tulips to be better and more comprehensive, increase in variety and in flower beauty. In a few years, when these become plentiful and cheap, the varieties now so abundant may be regarded as rather out of date. All the same, it is difficult to see any variety at Long Ditton, no matter how plentiful or how cheap it may be, without becoming interested in its beauty and colours. Even the old Sultan, still perhaps the darkest of all, though now greatly exceeded by other dark ones in size of bloom, yet seen in quantity, attracts the most admiration. How poor is the effect of the flowers at the shows and in open beds. I made a selection of some twenty-three varieties, which I briefly note, giving my own colour descriptions: Very dark is Sultan, almost black; Amber, rich maroon, with red shading; Purple Perfection, very fine, purplish maroon; Grand Monarque, deep maroon; King Harold, deep crimson, shaded maroon; Cordelia, soft lake, white veined, shaded maroon; Glow, brilliant crimson-scarlet; Glory, very fine rich vermilion-scarlet; Charles Dickens, very striking, deep reddish lake; Pride of Haarlem, very large flowers tending to double, crimson-scarlet, flushed magenta; Je Maintiendal, fine, rich violet-purple; White Queen, soft creamy white, slightly flushed lilac; Antony Roosen, bright pink, flushed rose; Painted Lady, white, slightly flushed mauve; General Hohler, vivid crimson; Coquette, deep rosy red, edged pink; Norah Ware, white, much flushed with soft mauve; Mrs. Krelage, fine form, rosy lake, edged flesh white; Edouard André, purplish lake, shading off to white, a lovely flower; The Bride, rosy magenta, shading off to white, a charming variety; Clara Butt, colour salmon-rose, very refined, delicately tinted, and singularly beautiful. A couple of good yellows, a hue not found in the accepted Darwins, are Mrs. Moon, petals long and pointed, colour bright yellow, and Pauline, externally pale lemon, within bright yellow, a charming variety. Those who cannot

see these Tulips for themselves may accept this as a first-rate selection, and includes most of the best varieties that are in commerce. Colours, especially in the selfs, as seen in bright sunlight, seem so diverse from the hues found in the dim light of a hall or tent. Still farther it is, when seen in perhaps 100 varieties all growing in bulk side by side, so much more easy to select those which seem to present the most pleasing form and colour

A. D.

## OBITUARY.

### MR. HUGH DICKSON.

WE learn with great regret of the death of Mr. Hugh Dickson, of the Royal Nurseries, Belmont, Belfast. Mr. Dickson was seventy years of age, and started business for himself at the Belmont Nurseries about forty years ago. He was one of the founders of the Ulster Horticultural Society, in the affairs of which he took a keen interest. Mr. Dickson leaves a widow and several grown-up children. Two of his sons have been in the business for some years, and will continue to carry it on.

### MRS. J. JAMES.

WE are very sorry to hear of the death of Mrs. James, wife of the late Mr. J. James of Farnham Royal, Slough, whose work among the Primulas, Cyclamens, Calceolarias, and Cinerarias is world-famous. Mrs. James was in her seventy-fifth year. The nursery has been carried on by her only son since the death of Mr. James, and the beautiful strains of flowers are grown to as great a perfection as in the days long ago.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

THERE was another grand display of plants and flowers at the Drill Hall on Tuesday last, the occasion of the annual exhibition of the National Tulip Society. Tulips, of course, were most numerous, and alone made a beautiful show. There were also many Orchids, shrubs, and hardy flowers, among the latter some new hybrid *Oococylus* Irises. Awards were made to new plants, flowers, and fruits by each of the committees.

#### ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch, (chairman), Messrs. James O'Brien, H. J. Chapman, W. H. White, H. Ballantine, H. M. Pollett, H. A. Tracy, de B. Crawshay, Frank A. Rehder, James Douglas, H. Little, William Bolton, Frank Wellesley, W. A. Bilney, Jeremiah Colman, G. F. Moore, H. T. Pitt, Richard G. Thwaites, H. G. Morris, A. A. McBean, F. W. Ashton, T. W. Bond, J. W. O'Jell, W. Boxall, and W. H. Young.

Messrs. Hugh Low and Co., Enfield, exhibited some large, well-flowered plants of *Cattleya intermedia* and *C. Skinneri*. Other beautiful *Cattleyas* were *C. Mossiae*, *C. M. reineckiana*, and *C. Mendelii*. *Lælia purpurata* Baron's Halt variety, too, was shown in this group, as also were *Masdevallia schröderiana*, *Dendrobium Bensoniæ xanthinum*, *Lycaste aromatica*, *L. cochleata*, and *Lælia cinnabarina*. Silver Banksian medal.

In the group from Messrs. James Veitch and Sons, Limited, Chelsea, *Lælio-Cattleya wellsiana*, *L.-C. hyeana*, *L.-C. highburyensis*, *L.-C. Daphne*, *L.-C. Thorntonii*, *Lælia Latona*, and other hybrids were noticeable. *Masdevallia Veitchii*, with its rich apricot-red flowers, was very bright, and *Cattleya Mossiæ*, *C. Mendelii*, *C. citrina*, *Dendrobium Bensoniæ*, *Oncidium sarcodes*, *O. marshallianum*, *Vanda tricolor*, and *Lælia purpurata* were all well shown. Silver Flora medal.

H. S. Goodsoo, Esq., Fairlawn, West Hill, Putney (gardener, Mr. G. E. Day), showed a pretty exhibit of miscellaneous Orchids, which comprised *Odontoglossum*, *Cattleyas*, *Oncidiums*, *Den-*

*drobiums*, &c., well arranged, and making a good display. Silver Flora medal.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman), showed *Odontoglossum crispum grairianum*, *O. c. Raymond Crawshay*, and *O. c. Harold*, all varieties of most beautiful marking.

A botanical certificate was given to *Cypripedium californicum*, shown by Messrs. Cutbush and Son, Highgate, N.

H. T. Pitt, Esq., Stamford Hill, N., showed *Cattleya intermedia lauryana*,

F. Wellesley, Esq., Westfield, Woking, exhibited *Lælio-Cattleya Lucia* Westfield variety (*C. Mendelii* × *L. cinnabarina*), a striking flower with yellow sepals and petals and purple lip; *L.-C. Venusia ignescens* (*L. tenebrosa* × *L.-C. Phæbe*), *Cypripedium Colossus* (*villosum giganteum* × *Sallieri aureum*), and *C. hopkinsianum* (*bellatulum* × *masterianum*), and two other hybrid *Lælio-Cattleyas*, but no awards were made to them.

De Barri Crawshay, Esq., Sevenoaks (gardener, Mr. Stables), exhibited some beautiful forms of *Odontoglossum crispum*, viz., *Raymond Crawshay*, *crawshayana*, *Angel*, and *Theodora* (award of merit), as well as *Zygotetalm Sedeni rosefieldiense*.

Three splendidly flowered plants of *Dendrobium devonianum* were shown by C. A. Morris Field, Esq., Beechy Lees, Sevenoaks.

#### NEW ORCHIDS.

*Cymbidium Sandere*.—A new and distinct species from the East Indies. The flowers are bold and well formed, sepals and petals creamy white, the lip large and open, heavily marked with purple upon a white ground; there is yellow in the centre and a margin of white. The flowers had developed on the journey home. From Messrs. Sander and Sons, St. Albans. First-class certificate.

*Odontoglossum crispum Harold*.—This variety has previously received an award of merit. The flower is of good form, the white sepals and petals, which have toothed margins, are marked with a few brown spots. The lower sepals have a central streak of yellow. From Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne. First-class certificate.

*Sobralia Ruckeri*.—A very beautiful flower, the sepals and petals of an uniform rich, rather light, shade of purple. The throat is almost white, and down the centre is a broad ridge of deep primrose yellow; the lip has a broad margin of deep purple. From Sir Trevor Lawrence, Bart., Burford, Dorking. First-class certificate.

*Odontoglossum crispum Theodora*.—A handsome variety, with white toothed sepals and petals marked with large blotches of rich red-brown; the lip is heavily blotched with the same colour, the sepals are tinged, especially on the margins, with rosy purple. From de Barri Crawshay, Esq., Sevenoaks. Award of merit.

*Odontoglossum crispum xanthotes Snow Queen*.—A rather large flower, the margins toothed; sepals and petals are pure white, while the lip and top of the column are marked with rich yellow. A beautiful flower. From H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood). Award of merit.

*Lælia purpurata* (*Baron's Halt variety*).—A beautiful light variety of *Lælia purpurata*; sepals and petals are white, the lip is streaked with light purple, and also the throat, which is yellow. From H. Little, Esq., Twickenham. Award of merit.

#### FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, J. McIndoe, S. Mortimer, Alexander Dean, Horace J. Wright, John Lyne, George Kelf, Edwin Beckett, John Jaques, F. Q. Lane, H. Farr, G. Norman, James H. Veitch, A. H. Pearson, H. Somers Rivers, Owen Thomas, and G. Reynolds.

A cultural commendation was given to Mr. G. Reynolds, Gunnersbury Park Gardens, Acton, for a dish of Peach Duke of York.

Mr. G. Hobday, Havering Road, Romford, showed *Rhubarb Hobday's Giant*, the leaf stems nearly 5 feet long.

A silver Banksian medal was given to John Hodres, Esq., Fay Gate Station (gardener, Mr. T. M. Le Pilley), for Black Hamburg Grapes

shown in baskets. They were of good colour, and altogether excellent for so early in the year.

#### NEW FRUIT.

*Melon The Islander*.—This is a fairly large green-fleshed Melon of excellent quality, sweet and juicy. It is the result of a cross between *Ritchings' Perfection* and *Sion House*. The plant is said to be a vigorous grower, setting freely and bearing abundantly. From Mr. Charles Ritchings, Highlands, Catl, Guernsey. Award of merit.

#### FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), Messrs. H. B. May, George Nicholson, E. Dean, J. Hudson, J. Jennings, W. Howe, J. W. Barr, C. Dixon, J. A. Nix, C. Jeffries, R. C. Notcutt, C. E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, C. Bick, H. J. Jones, E. Mawley, R. Hooper Pearson, C. T. Drury, and Rev. F. Page Roberts.

A good strain of *Calceolarias* in pots came from Messrs. Cannell and Sons, Swanley, Kent, the plants models of good culture and in much variety of colour. From the same source came *Pelargoniums*, zonal, decorative, and others. In the former Countess of Hopetoun was very fine; in the latter group W. E. Boyes, Hypatia, Defiance, and Duchess of Westminster. *Verbena Ellen Willmott* was also well shown. Bronze Flora medal.

A group of several dozen plants of *Schizanthus wisetonensis* from Messrs. James Veitch and Sons left nothing to be desired. The plants in 6-inch pots were models of culture and of a useful size, not more than 12 inches high in many instances. *Kalanchoe felthamensis*, *Epiphyllum Gartneri*, with reddish orange flowers, and *Tillandsia Lindenii* were also shown.

The Guildford Hardy Plant Company (proprietor, Mr. A. Upton), showed a charming lot of alpines and other hardy things. If we select the best and most rare we take *Haberlea rhodopensis*, *Oxalis enneaphylla*, *Gentiana verna*, *Onosma tauricum*, *Tulipa Haageri* var. *nitens*, *Alyssum saxatile florepleno*, *Androsace sarmentosa*, *Ledum palustre* (with charming trusses of white flowers), *Anemone sylvestris major*, and *Rhododendron myrtifolium roseum*. *Cypripediums*, *Ramondias*, *Primula involucrata*, and others completed a most interesting group. Silver Flora medal.

Messrs. William Bull and Sons, Chelsea, had a nice lot of stove, decorative, and table plants, such as *Crotons*, *Aralias*, *Dracænas*, small *Palms*, and similar things. The plants were exceptional in their neatness and cleanliness, giving a good idea of their value.

Messrs. Paul and Son, Cheshunt, set up a small exhibit of climbing *Roses*. *Snowstorm*, a hybrid probably of *R. moschata*, that is also perpetual in its flowering, the blooms white, and borne in great profusion on the tips of the branches; and *Tea Rambler*, a charming *Rose*, soft pink in colour, were included. *Lonicera Hildebrandtii*, *Rubus deliciosus*, and *Ribes speciosus* were also shown. *Pæony Emodi*, *Alyssum saxatile fl.-pl.*, *Tiarella cordifolia*, with *Saxifragas* and other early flowers, and Darwin and other Tulips were also from this firm.

A good strain of *Streptocarpi* came from Messrs. Laing and Sons, Forest Hill, together with a large circular group of greenhouse decorative plants.

A very beautiful exhibit of *Roses* came from Messrs. Ware and Co., Feltham. The plants were arranged on the floor and produced a capital effect. Singles and doubles, in conjunction with the rambler sorts, were all in charming array, and with good varieties of *Acers* here and there gave a very pleasing result. Some of the more prominent were *Mildred Grant*, *Maréchal Niel*, *Lady Roberts*, *Souv. de P. Notting*, *Frau Karl Druschki*, *Austrian Copper*, *Liberty*, *Lady Battersea*, and *Royal Scarlet*, a fine bit of colour. Bronze Flora medal.

Messrs. Veitch and Sons, Limited, Chelsea, had a nice lot of *Pyrus Malus Schiedeckeri Cerasus Pseudo-Cerasus* James H. Veitch, *Pyrus floribunda*, with *Hydrangea Hortensia Veitchii* in a very pretty group. *Watsonia Ardernei*, 4 feet high or more, and bearing many of its white flowers, was also in this group. Silver Banksian medal.

Messrs. Cheal and Sons, Crawley, had a large table devoted to cut sprays of flowering shrubs,

Pyrus, Azalea, Lilacs, Brooms, Cerasus, Pernettya speciosa, Amelanchier florida, and other like plants now in bloom. A small group of alpinas included Phloxes of the setacea group, also *P. canadensis*, &c., with Primulas, Saxifrages, alpine Wallflowers, Ramondias, Androsace sarmentosa, very charming, and other plants. Bronze Flora medal.

A nice lot of alpinas and hardy things from Messrs. Jackman, Woking, included *Enothera speciosa rosea*, *Delphinium nudicaule*, *Trollius*, *Jacarvillea Delavayi*, very fine; *Saxifraga granulata plena*, *Ramondias* in plenty, *Conandron ramondioides*, *Cyclamen repandum*, with Lilacs, Clematises, and many other good and showy plants.

Messrs. J. Veitch and Sons, Limited, Chelsea, had a grand array of Tulips, Darwins, Cottage, Parrot, and other sorts, giving a wondrous blaze of colour impossible to picture in words. The Darwin Queen of Roses, Pride of Haarlem, Margarita, Frau Angelica, very dark; Hecla, a claret shade; The Fawn, and Clara Butt, rose, were of the best. Many others were shown, and of these Summer Beauty was most effective. Silver Banksian Medal.

Tulips in strong force also came from Messrs. Wallace, Colchester. Here, too, were Darwins, Cottage, and other sorts, with species. Parisian Yellow, Flame, fine scarlet; *gesneriana major*, *ixioides*, *gesneriana aurantiaca*, Inglescombe Scarlet; Kathleen, soft yellow; King Harold, Eurasian, and others; in all a really superb display of these highly valuable garden flowers. Silver-gilt Banksian medal.

The Fern group from Mr. H. B. May, Edmonton, was made up of some three dozen species and varieties of *Gymnogramma* most pleasingly arranged. Prominent among those shown were *schizophylla gloriosa* and *s. superba*, *Martensii*, *Argentea grandiceps* (very dwarf), *grandiceps superba* (rich golden), *elegantissima*, and others. *Verbenas King of Scarlets*, *Ellen Willmott*, and a good strain of *Petunias* were also shown. Silver-gilt Banksian medal.

Messrs. Hogg and Robertson, Dublin, again brought Tulips in great force, though Darwins to a large extent prevailed. It was certainly a most imposing display, rich, varied, and extensive in character. Among the more notable of Darwins were *Noire* (very dark), *Gustave Doré*, *Zulu* (very

dark), *Sultan* (also dark), *The Fawn*, &c. *Zomerschorn* was very fine and showy, and many species and other sections were well represented. Silver Flora medal.

The Roses from Mr. George Mount, Canterbury, were very good. Ulrich Brunner and Mme. A. Chatenay were superb; General Jacqueminot, Catherine Mermet, Mrs. Grant, and Mrs. J. Laing were all excellent, and with towering masses of *Crimson Rambler*, together with columns of the same, formed a really superb gathering. Silver-gilt Banksian medal.

Messrs. Hugh Low and Co., Enfield, showed hard-wood plants, as *Pimeleas*, *Boronias*, *Heaths*, with *Gerbera Jamesoni*, *Dimorphothea Ecklonis*, and *Clerodendron Balfouri*, &c.

A group of Tulips (*Darwins* and *Cottage* sorts) came from Mrs. Benson, Buckhurst, Sussex (gardener, Mr. Philpott). The flowers were very fine, and in the first-named very massive. Silver Banksian medal.

Messrs. Gilbert and Son, Bourne, Lincolnshire, showed a batch of *Anemones* of the *St. Brigid* strain, splendidly grown and rich and effective in colour. Varied and most pleasing, these things attracted a good deal of attention. *King of Scarlets* is intense in colour, and *The Bride* is a nearly white flower. Some sixteen varieties were set up. Silver Flora medal.

From Belfast Messrs. A. Dickson and Sons brought a fine lot of Tulips, *Darwins* and late *May-flowering* principally. Of the first Rev. Harpur Crewe, *Gustave Doré*, and *The Sultan* were all fine. *Chameleon*, *Rose Pompon*, and *Vitellina* (palest yellow) were other good ones. The flowers were all very good and fresh-looking, making a most dazzling display. Silver Flora medal.

Messrs. R. H. Bath, Limited, Wisbech, had a glorious exhibit of Tulips, splendidly arranged, and forming a most imposing display of these flowers. We take a few of the best—*May Queen*, *Yellow Perfection*, *Gesneriana major*, *Noire*, very dark; *The Sultan*, *Admiral Kingsbergen*, crimson flaked, white on both surfaces; *Europa*, scarlet, pure white base; *Mrs. Moon*, yellow; *Golden Crown*, *Clara Butt*, the most important. Silver-gilt flora medal.

A charming dozen of *Auriculas* came from Mr. Douglas, Great Bookham, chiefly alpine and green

edged sorts. A hybrid *Dianthus* raised from crossing the *Sweet William* and *Uriah Pike* *Carnation* was also shown.

Messrs. J. Peed and Sons, West Norwood, exhibited low alpinas in boxes, as on former occasions. Bronze Banksian medal.

Mr. Amos Perry, Winchmore Hill, set up a big group of hardy things—*Geum Heldreichii*, *Cypripedium acaule*, *C. Calceolus*, *Iris vaga*, *I. pumila* in variety, *I. Korolkowi* *Leichtlini*, *Phlox canadensis*, *P. canadensis* Perry's variety, Tulips, *Trollius*, double *Arabis*, *Calochortus*, double red *Wallflower*, alpine *Poppies*, and many other good and showy subjects for the garden. Silver flora medal.

Mr. M. Prichard, Christchurch, had a showy group, in which *Tree Pæonies* played an important part. Other good things were *Epimediums*, *Gentiana verna*, very fine mass; *Anthemis Aizoon*, *Alyssum saxatile plenum*, *Asperula tuberosa*, very charming *Pinguicula grandiflora*, *Primula japonica*, *Eremurus robustus superbus*, very fine; and a pretty lot of *Scillas*. Silver flora medal.

Alpinas such as *Phloxes*, *Auricula Queen Alexandra*, *Daisy Alice*, *Primroses*, *Gentians*, and the like came from the Misses Hopkins, Mere, Cheshire, and were a fresh little group of the good things of springtime.

The Tulips from Messrs. Barr and Sons, Covent Garden, were a highly attractive lot—*Cygnus*, pure white with dark anthers; *Golden Crown*, *Inglescombe Pink*, *Clara Butt*, *Gipsy Queen*, *White Queen*, *Mrs. Rollage*, *Grand Monarque*, *Dorothy*, *Didieri alba*, *Coquette*, *Sir J. Hooker*, *Charles Dickens*, *Marie*, a fine *Rose*, were among the more noticeable. A large lot of English-named Tulips were shown in company with these. Silver flora medal.

Messrs. Cutbush and Sons, Highgate, had a large collection of hardy *Orchids* and *Orchises*; of the hardy *Cypripediums* the rarely seen *C. candidum* was in strong force, while of others shown in plenty we remarked *C. acaule*, *C. occidentale*, *C. spectabile*, *C. pubescens*, *C. parviflorum*, and others. There were some dozen species of *Orchis*, and *Ophrys* were staged with *Goodyera pubescens*, *Bletia hyacinthina*, and like plants, all being of great interest. A few *Ferns* with *Bamboos* completed a very fine exhibit of these plants.

Mr. J. R. Box, Croydon, showed *Begonias* in his usual style and quality, some handsome flowers of the double kinds being staged.

Mr. R. Anker, Kensington, again staged *Cacti* and miniature pots of *Erica persoluta alba*, with *Azaleas* and other plants.

*Calceolarias* and *Gloxinias* came from Mr. J. A. Young, West Hill, Putney (gardener, Mr. J. H. Street). In both instances the plants were well grown and profusely flowered, certainly highly creditable as the first attempt of an amateur gardener. Bronze Banksian medal.

#### FLORAL COMMITTEE AWARDS.

The following received the first-class certificate:—

*Rhododendron Beauty of Littleworth*.—A very handsome large-flowered truss of openly campanulate flowers, nearly pure white, and copiously dotted with dark spots on the lower petals. A very beautiful free-flowered hybrid. From Mr. H. A. Mangles, Littleworth, Farnham.

*R. Dawn*.—This reminds one of *Pink Pearl*, but scarcely so pyramidal in the outline of the truss, which is of great size. The blossoms are of a more rosy hue than in *Pink Pearl*, and with deeply undulate margin to the well-expanded flowers a charming colour is seen. It is a great beauty. From Mrs. J. H. Mangles, Valewood, Haslemere.

*Iris Iphigenia* (*Onco-Regelia* var.).—A new hybrid *Iris* of great beauty, the falls of which are dark purplish red, reticulated at the base, and heavily blotched. The standards are of satin rose purple and very large.



PRUNUS SERRULATA NOW IN FLOWER IN THE ROYAL GARDENS, KEW. (See page 347.)



# THE GARDEN

No. 1697.—VOL. LXV.

[MAY 28, 1904.]

## THE OUTLOOK FOR FRUIT.

**A** FEW weeks ago we wrote hopefully about the prospects of the fruit crops, but anticipations then were necessarily guarded, for it was April, and, while the chances of severe frost that might have upset everything were by no means remote, only the earliest of the trees, such as Cherries, Pears, Plums, and Damsons were in bloom. Up to the moment of writing again—and May is now drawing to a close—all things have gone happily, and never, perhaps, were prospects brighter for a good fruit year. During the past few seasons we have come to regard May as not a very kindly month in the way of weather. Gloomy skies, cold rains, and chilling winds prevailed last year and the year before, and the detrimental effect on growing crops was seen the season through.

This year, however, May is more true to her traditions. The early blossom is mostly gone; no longer are the Pear, Plum, and Cherry orchards sheets of living whiteness, but the trees instead are mantled with green. Anxiety for the time is over, and hope rises high when close examination is made, and in the place of blossoms one finds setting fruits. During the last few weeks a complete revolution has taken place. Vegetation of all kinds has developed amazingly, and the bright green of foliage everywhere has not yet had time to assume that matured look which it naturally acquires as the summer advances.

The flower of the moment—so far as the fruit department is concerned—is that of the Apple, and it is almost safe to say that the crop will be a heavy one. All the pessimistic doubts which arose through the fear that the wood could only be partially ripe have been swept away. It has come in easy stages, as it always does, and, whilst the petals on the earliest-blooming varieties are falling, some are fully opened, others, again, are at the pink and white stage of unfurling, while the latest of all are not so far advanced. Generally speaking, we have to complain about some varieties flowering indifferently or even not blooming at all, but this year there seem to be no exceptions, and every individual tree in the orchard or garden seems to be competing with its neighbour to see which can make the brightest display.

Does this promising state of affairs teach a lesson? We think so. After the killing frosts

of last year had dashed all hopes of crops, it was our lot to look upon trees for the rest of the season fruitless, and, for the time being, profitless. To say the very least of it, the experience was disappointing, but Nature was working things out in her own way. Whilst growers were complaining the trees were resting and recouping their energies, and the result of it may be seen in the promising aspect of things at the present time.

It is curious how thoughts veer round, particularly amongst those who grow fruit for profit, and already the word "glut" is being whispered in various quarters. A few weeks ago this word was never thought of, and there was a general anxiety for a good fruit year. As the prospect of this grows safer day by day, the fear works its way in that crops may be exceptionally heavy and prices will run low in consequence. A great demand there is sure to be, owing to the all-round scarcity last year; but it must also be remembered that as yet our methods for the distribution of quickly perishable fruit are by no means perfect, and growers in fruit areas have recollections of seasons of abundance when they had the painful experience of seeing their produce go to waste through their inability to get it to the consumers at a price which would pay expenses and leave a margin of profit. It may appear ungrateful to cherish any such fears at the present moment, and perhaps they are out of place; but fruit growers are only human, and they know what has happened in the past.

In view of the reasonable expectations of heavy crops we are reminded of the assertion often repeated that, so far as Apples and Pears are concerned, good fruit always sells. Just so; but a season that is favourable for good fruit is equally so for inferior produce, and the fact remains that a large quantity of second and third rate stuff is grown and offered for sale, and this has a telling effect on the market. Time will doubtless bring about a change, for thousands of trees have been planted of late years which are coming into bearing, and it must be said to the credit of the present day fruit grower that he is careful to plant only good recognised varieties. But in the meantime there are thousands of old trees of inferior varieties and uncertain origin which still bear, and the produce sells at some price or other. While these trees remain poor British fruit will continue to find its way into the market; but when they pass away in the ordinary course of nature, then will the door be opened wider for the growers of high-class varieties.

For the moment, however, we are concerned with the outlook, which is promising, and, beyond a passing reference, this is hardly the time to discuss the possible difficulties of distribution.

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

### THE PEARL BUSH (EXOCHORDA GRANDIFLORA.)

Twigs of this beautiful shrub come from Mr. R. C. Notcutt, Broughton Road Nursery, Ipswich and we are glad to be reminded of so fair a flower., Mr. Notcutt writes: "The Exochorda is flowering very freely with me this season. It is growing in light, sandy soil in an open position. The bush is now 8 feet to 10 feet high, and is about the same in width."

Mr. J. Clark also sends a note, which is as follows: "Common names of plants are usually misleading and generally incorrect, but the name of Pearl Bush given to this plant is thoroughly justified when it is seen in flower. It is a native of China, and blooms, as a rule, about the middle of April, but this year it is about three weeks later, and can be seen in its full perfection untouched by spring frosts. The flowers are of the purest white, nearly 1 inch across, six-petalled, and borne in upright terminal and sub-terminal spikes. As they are produced from the wood of the previous year, appearing as soon as the leaves, it will be seen how important it is to have this plant in a position where it is least likely to start early into growth. I have seen it thriving wonderfully well in the partial shade of some big Birches, where it has plenty of light, and is also protected from frost by the thin screen of the leaves of the trees. When fully developed *E. grandiflora* makes a large shrub 8 feet to 10 feet high, and about the same in width. The branches are slender and twiggy, and clothed with grass-green leaves. It likes a fairly rich but rather light soil, but should not be allowed to become too dry in hot weather. Propagation is effected by seeds, which ripen late in the autumn and readily germinate."

### DENDROBIUM WARDIANUM.

Mr. H. A. Page, gardener to Mr. J. S. Bergheim, sends a few flowers of this beautiful Dendrobium. Our correspondent writes: "We have at present half a dozen in good condition, after having been used in the drawing-room and elsewhere. One plant has upwards of 100 flowers open. Some of the pseudo-bulbs have flowered from

fifteen nodes, which I think you will agree with me is very good after such a sunless autumn as that of last year. Our first flower of *D. wardianum* opened in December last, thus showing the great length of time this noble species may be had in bloom where a sufficient number of plants are grown."

#### WALLFLOWERS FROM STOURBRIDGE.

We have received from Messrs. E. Webb and Sons, Wordsley, Stourbridge, flowers of Wallflower Kinver Favourite and Canary Bird. Both are of strong self colours, the individual flowers large, but not coarse. The colour in the former is a dark crimson, while the latter is a rich yellow. The breadths of these varieties in Messrs. Webb's seed farms at Kinver make a great display. Good self colours are to be welcomed.

#### GYPSOPHILA ELEGANS AS A POT PLANT.

We were glad to receive a boxful of this pretty pink annual, which is too little seen in gardens, though why it should be overlooked is strange considering its grace and tender colouring. Mr. J. S. Higgins, Rug, Corwen, North Wales, is the sender of this annual, and with the flowers was this instructive note: "Just a word in praise of this graceful annual. Those who have used it in the flower garden for cutting from during the summer know how useful it is in many ways, especially in the arrangement of cut flowers in vases; it is so graceful, and the pink flowers are very pretty. But very rarely does one meet with it in pots. It is difficult to mention an annual more pleasing to the eye in flower at this time of the year. If the seed is sown towards the end of August and grown as cool as possible, just to exclude frost, it will be in flower at this period. Mixed with *Schizanthus*, *Mignonette*, *Pelargoniums*, &c., the effect is all that can be desired, and the flowers last a long time in bloom."

#### MAY-FLOWERING TULIPS FROM COLCHESTER.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, send a large gathering of Tulips which flower in the month of May. All were of beautiful colouring, and they serve as a reminder of the great effects that may be got from these Tulips when planted freely in the garden in large or small groups. Those especially worthy of note were the well-known *Vitellina*, a flower of refined colour and pretty shape; *Striped Beauty*, striped with red, cream, white, and purple, a medley of shades, but in pleasant harmony; *Orange King*, rich orange glow, deep crimson, one of the most glowing in colour of all the so-called Darwins; *Georgeana*, carmine; *The Fawn*, a lovely Tulip, the name suggests the colouring; *Gold Flake*, the segments striped with yellow and crimson; *Hippolyta*, dark purple-magenta, not a harsh colour, but pure and effective; *La Merveille*, bright orange-scarlet, a very handsome flower; *billietiana*, yellow, flushed with red; *Fairy Queen*, flushed with purple and yellow; *La Candeur*, white; *Innovation*, white, tipped with crimson; *gesneriana lutea pallida*, a very soft self yellow; *Coronation Scarlet*, which has tapering segments of warm colour; and *elegans maxima lutea*, deep butter-yellow, very rich.

#### TULIPS FROM MR. HARTLAND.

Mr. Hartland sends from Ard Cairn, County Cork, a splendid gathering of Tulips, but regrets they cannot be seen in the full sun. The flowers are beautiful in their rich colourings on our table, and we know their effectiveness in the open garden. A few of the more important of the forms sent are as follows: *Gold Flake*, bright orange, very showy; *fulgens lutea*, bright golden, very large, the pointed segments adding to the quaintness of the flower; *Buenaventura*, scarlet, flaked with gold, a small but striking variety; *Firefly*, deep red, with yellow markings; *Eyebright*, yellow, flaked with red, very showy; *The Fawn*, which we have described on several occasions; *Cloth of Gold*, golden, with red flush; *Dainty Maid*, marked with rose-lilac on a white ground, very handsome; *Picotee*, one of the best of its class; *ixioides*; *elegans lutea*, very

showy, its yellow colour relieved with a reddish suffusion; the soft primrose *vitellina*; *Sunset*, golden and red, a bright flower; *aurantiaca*, the type, rich scarlet; *La Merveille*, one of the finest of all, the colouring salmon-rose, mingled with orange-red and yellow; *Shandon Bells*; *Columbus*, very fragrant, blotched with vermilion and gold; *Fairy Queen*, rose-heliotope, with yellow margin; *Emerald Gem*, red; *globosa grandiflora*, a noble flower, silky crimson; *Bronze Queen*, golden-bronze; *Clare of the Garden*, bright scarlet; *lutea pallida*, pale primrose; and *gesneriana lutea*. Mr. Hartland sent several others, but, unfortunately, want of space prevents further descriptions.

#### A BEAUTIFUL NEW ROSE (H.T. FRIEDRICH HARMS).

Mr. Goodwin sends flowers of a very beautiful new Rose, reminding one of the grace, colour, and perfume of *Maréchal Niel*, but it is quite distinct. Mr. Goodwin writes: "I send you a bloom of this new Hybrid Tea Rose, which has been extremely good here under glass. It was sent out by N. Welter in 1902, and described as a yellow Kaiserin Augusta Victoria. Although I have not yet tested it in the open ground, I fancy it will be a good addition to this class. So far it appears to be an excellent variety for forcing. The plant grows well, and the flowers are of large size and deliciously scented." The scent is very strong and sweet.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

May 30.—Kew Guild Dinner.

May 31.—Royal Horticultural Society's Temple Show (three days).

June 1.—Proposed Gardeners' Association Public Meeting, Essex Hall, Strand, 6 p.m.

**The British Gardeners' Association.**—Will you kindly allow me to inform your readers who are interested in the proposal to form an association of professional gardeners to include all sections of horticulture that the provisional committee will submit a definite scheme for its immediate formation at the meeting to be held in the Essex Hall, Strand, at 6 p.m. on June 1. The committee have had assurances of support from many gardeners of all classes, including nurserymen, seedsmen, park superintendents, &c., and there is now every prospect that the association will be a success. There is seating accommodation for 600 only in the Essex Hall, and as it is hoped that the proceedings will begin at six o'clock, those who desire to get a seat should be in time.—*W. WATSON, Hon. Secretary Provisional Committee.*

**National diploma in agriculture.** At the recent examination of the National Agricultural Examination Board, appointed by the Royal Agricultural Society of England and the Highland Agricultural Society of Scotland, Mr. R. C. Gaut, undergraduate of the Victoria University, and formerly a student gardener at Kew, has been successful in gaining the National Diploma in the Science and Practice of Agriculture.

**A note from Naples.**—I am sending some flowers of *Auriculas*, a fine lot raised by Mr. C. Sprenger. I hope that they will arrive in good condition. In the Vomero Garden the South Africa composites are now in splendid bloom. *Arctotis aureola robusta* is covered with hundreds of large orange-coloured flowers, a noble plant; *Arctotis revoluta*, with lemon-coloured and black disc, is very free flowered; and *Arctotis aspera*, with white flowers, is also in bloom. The *Gazanias* are a speciality of Mr. Sprenger; he has more than thirty-five quite distinct hybrids. The most brilliant are *Sir Michael Foster*, very large, deep orange; *Italia*, very large, clear lemon coloured, on tall erect stalks, a splendid plant; *Parthenope*, orange, with dark brown circle in the centre; *Trinacria*, Darro, and many more. All the *Gazanias* are very robust, and should be more grown. The new *Gazania Lichtensteini* from

South Africa is now covered with the little lemon coloured, black-spotted *Gerberas*, a very interesting species. Thousands of *Gerberas* are in flower, especially the sorts *sanguinea*, *illustris*, and *transvaliensis*. These have larger flowers than the type, and of deeper colour. *Calanthe discolor aurea* and *C. discolor speciosa* have flowered very well, they are cultivated the whole year in the open; also *Epipactis erecta*, with yellow, pretty flowers; *Bletia hyacinthina* and the white form. *Asparagus filicinus* from China is also in flower; this species is hardy here, it is like *Pteris aquilina* in growth. *Hemerocallis* in different species and hybrids. *Iris tectorum*, dwarf variety from China; the typical blue and the variety *alba* are splendid plants. The blue is cultivated here on the side of terraces, and is doing very well. The white is a jewel for pot growing. Shrubs in flower are the new and rare *Sophora monroviensis*, with pale blue flowers, from China; *Rubus trifidus*, evergreen, with large, pure white flowers; *Hypericum balearicum*, a shrubby species, with thick, dark green leaves and yellow flowers, very pretty. *Magnolia Watsoni* will be in flower next week. Of *Yuccas* many hybrids are in flower, also *Yucca trecaleana* and *recurvata pendula*.—*W. MULLER, Vomero, Naples.*

**Gardeners at cricket.**—A match between the Dover House Gardens and Royal Gardens, Kew, took place at Dover House, on Saturday, the 21st inst. Going in first the home eleven compiled 60, Kew replying with 79 (Elliot 22 not out). Great excitement prevailed towards the close, Kew, at the fall of the ninth wicket, still requiring two runs to avert defeat. Elliot soon put the issue beyond doubt, hitting the ball out of the grounds. Tea and a visit to the gardens closed a pleasant day.

**Two good Peaches.**—Messrs. Rivers and Son, Sawbridgeworth, Herts, have sent fruits of two of their Peaches of recent introduction, *Duchess of Cornwall* and *Duke of York*. The former is primrose colour, striped and blotched with red; the flesh is juicy and melting, and has a smack of Nectarine flavour. This variety forces well, and is an improvement on the early American sorts; it received an award of merit from the Royal Horticultural Society in 1901. *Peach Duke of York* is a highly coloured fruit of splendid flavour, and excellent for forcing. It also received an award of merit in 1902. Messrs. Rivers and Son will exhibit both these varieties at the Temple show.

**Sale of valuable Orchids.**—On Tuesday next, at 3 p.m., Messrs. Protheroe and Morris will hold a sale at their rooms in Cheapside of duplicate plants of the rare and valuable hybrid Orchids in the collection of Mr. Norman C. Cookson, Oakwood, Wylam-on-Tyne. The reserve price of one plant is £500, and those of others are in proportion, so that a good attendance of Orchid enthusiasts may be expected.

**An old Pear tree in Dublin.**—Many visitors to Dublin during the spring show of the Royal Dublin Society every year will have seen the noble *Jargonelle* Pear tree in flower, as trained up the front of No. 14, Merriion Square. This tree is said to be planted by the late Sir Philip Crampton, a celebrated surgeon, in or about the year 1814. Its roots are in the area and basement, and probably much further afield, or rather under the roadway, while its top reaches very nearly to the third floor windows. Its gnarled old stem and branches are just now studded with great clusters of white flowers. It is well known to residents in Dublin as "the Pear tree in the square," and though, perhaps, somewhat less luxuriant than formerly, it is still a most remarkable tree. Apart from its beauty when in flower, it has at times borne very good crops of fruit. It has often been photographed, and Miss Barton has painted a charming picture of it in flower. As an object-lesson, it stands a living proof that fruit tree cultivation is not impossible, even in town house areas like this at Dublin. There are one or two other Pear trees in Merriion Square, but none so large and fertile as this particular specimen, to which we have referred before in these columns.—*The Field.*

**Brunfelsia calycina.**—Some bushes of this *Brunfelsia* planted out in a border of the Mexican portion of the temperate house at Kew have this spring, as for several years past, been remarkably attractive, not only from their wealth of richly-coloured blossoms, but also owing to the handsome leafage. In many gardens it may not be possible to plant out such subjects, but where it can be done better results may reasonably be anticipated than in the case of those grown in pots. The plant as above may be unknown to many, but as *Franciscea calycina* it will be familiar to most gardeners.—T.

**Veronica diosmæfolia.**—This, one of the innumerable shrubby *Veronicas*, native of New Zealand, forms a very pretty pot plant, and in this way it is employed for decorative purposes in the greenhouse at Kew. Neat little bushes may be grown in pots 5 inches in diameter, and when laden with flowers they have a very pretty effect. The *Veronica* in question branches freely, the slender shoots somewhat spreading in habit, being clothed with small, rather narrow, sharply-pointed leaves, and terminated by corymbs of small flowers of a pleasing shade of pale mauve. Like most of the New Zealand *Veronicas* it is in all probability nearly hardy. Cuttings strike root readily, and its cultural requirements are not at all exacting.—H. P.

**A new horticultural industry.**—There is nothing new in propagating Potatoes from cuttings. It is upwards of forty years ago since I first knew of its being done, but selling Potatoes in pots seems to be a more modern innovation. I believe some Northern Star in pots were sold last year. This year, however, there seems quite a big trade being done in Potatoes in pots. I know of one grower who has sold upwards of £200 worth of Eldorado plants in pots, and others may have done even more than this, for I find several growers are advertising plants in pots, some being priced as high as four guineas each. As a pound of seed Potatoes would produce at least 2,000 plants, this should be a most profitable enterprise.—A. H.

**Pæonia lutea (Franchet).**—A mistake is made on page 324 in describing this as a herbaceous Pæony, for it is in reality a shrubby species after the manner of the well-known *Pæonia Moutan*, though the newcomer does not appear likely to attain the dimensions of the older one. Later on in the same article it is described as a shrub, so that the first portion is an obvious slip. It is now fairly well known, though the price of 50fr. each, which is quoted in Lemoine's catalogue, will show that it is far from common. It was shown in April of last year at a meeting of the Royal Horticultural Society, and was then awarded a first-class certificate. Apart from its own intrinsic beauty there is the probability that it will perhaps prove of considerable value to the hybridist, as, in conjunction with *Pæonia Moutan*, it may give us many new shades of colour among tree Pæonies.—H. P.

**Fabiana imbricata.**—This pretty flowering shrub, which was so noticeable in Messrs. Veitch's exhibit at the Drill Hall on the 3rd inst., is, apart from its beauty, of considerable interest, owing to the fact that it would be taken at once by the uninitiated for a member of the Heath family, while as a matter of fact it belongs to quite a different order, viz., *Solanaceæ*, thus having for its immediate allies the Potato, *Datura*, *Cestrum*, or *Habrothamnus*, and others. The *Fabiana* forms a fairly quick-growing evergreen shrub of a somewhat upright habit. The shoots are crowded with small Heath-like leaves, while the resemblance is increased when the plant is in flower, as individually and in the manner in which they are borne they are exactly like some of the Heaths. Of a somewhat wax-like texture the blooms are tubular in shape and pure white in colour. It was introduced from Chili in 1838, and like many other plants from that region it is only moderately hardy in this country, requiring as it does the protection of a greenhouse in many parts. We must go to the South-west or to Ireland to see this delightful shrub at its best, for beside the milder winters there experienced the extra amount of humidity which prevails is greatly in its favour. In many of the southern counties it will thrive with the

protection of a wall, but trained thereto it is less attractive than as a shrub in the open ground. Cuttings of the half-ripened shoots put in a close frame are not at all difficult to root.—H. P.

#### MAGIC.

ALL tender green one evening  
The Jasmine went to sleep,  
But when next day the sunbeams  
Began to dance and peep,  
It suddenly awoke—snow-white!  
"What has come to me in the night?"  
Ah, often happens such a thing  
To those who go to sleep in spring!

SYDNEY HESSELRIGGE.

—(From the German of Rückert.)

**Salvia carduacea.**—*Salvias* are all very interesting, but *Salvia carduacea* is especially so. It is very different from the other members of the genus—an odd and striking plant. It looks very much like a Thistle, whence its name. It has been known to horticulture only through Californian collectors. I am told that recently some of the seedsmen in the Eastern States have offered it in their catalogues, but no such advertisement has come under my notice. It has been figured in the *Botanical Magazine*, t. 4874, but it is not common, I think, in British gardens. We have not tested it in outdoor plantings, but find it a striking plant for the greenhouse in a moderate temperature. The seed does not germinate well, and the plant is rather hard to handle until it becomes established in pots. It is a thrifty and rampant grower when



SALVIA CARDUACEA.

(The natural width of the flower is 4 inches.)

once established. The flowers are delicate, light blue, very much dissected on the lip, spreading, and conspicuous. The whole plant is striking—not to say beautiful—in every respect. The leafless stems reach a height of 18 inches to 30 inches, and number from two to five whorls of flowers. The whorls are from 2 inches to 4 inches in diameter.—F. A. WAUGH, *Massachusetts Agricultural College, Amherst, Mass., U.S.A.*

**Carnation Leander.**—This will make a most useful variety for cutting from. I have flowers before me which were cut a week ago, and they still retain their freshness. The flowers, which are of a pleasing shade of rosy salmon, are of

good size and have a perfect calyx. They have long stiff stems more after the American varieties, but the flowers have broad smooth petals instead of fringed edges. I have not yet seen growing plants, but from the appearance of the long-stemmed blooms it should prove just the right variety we want. It well deserved the award of merit which it gained at the Drill Hall on the 3rd inst. I may mention that the name may mislead, as there is a good yellow variety which came out under the same name a few years ago.—A. H.

**Daffodils in moist ground.**—Referring to "A. H. P.'s" notes, page 323, I may mention that within a few miles from this place there are two places where Daffodils are apparently indigenous. In both cases the natural soil is moist. One of them is near to the River Wharfe, which in the winter months occasionally overflows its banks. In the other case the soil is stiffer, though not actually subject to flooding. One large grass enclosure has been called the "Daffy" field for generations. The variety that grows there is nearly all the old single one, though there are patches of the old double one.—H. J. CLAYTON, *Grimston, Tadcaster.*

**Cytisus racemosus.**—This greenhouse shrub, a native of Teneriffe, is now in fine bloom in the open in the south-west. One specimen grown in bush form in a neighbouring garden is fully 10 feet in height and almost as much through, and is now a beautiful sight, being a cloud of bright yellow. In some cases this *Cytisus* is trained against house walls, in which position it has attained a height of over 20 feet, and walls covered with its blossoming racemes are now sheets of gold. This bright flowering shrub, in common with the Mexican Orange-flower (*Choisya ternata*), usually enters upon a second season of bloom in the south-west during late autumn, and bushes of each may be often seen in good bloom in November and December. The *Cytisus* is, indeed, often in flower in open winters at Christmastide. It appears fairly hardy, as I have seen it exposed to several degrees of frost at that season without any injury being done to flowers or foliage.—S. W. F.

**Sanguinaria canadensis.**—The Canadian Blood-root, so called on account of the coral-red colour of its root, is a charming spring-flowering plant too seldom met with in gardens. It commences to make growth in February, and generally flowers in March. The large palmately-lobed leaves are about 7 inches across, and are handsome in form, while their undersides are of a glaucous grey tint. A large patch with some dozens of white flowers fully expanded in the sunlight has quite a dazzling effect. The variety *stellata* has more and narrower petals, which impart a semi-double appearance to the flower. A soil of sandy peat or leaf-mould and a sheltered position partially screened from the direct rays of the sun during the greater portion of the day appear to be best suited to the requirements of the *Sanguinaria*, though I have seen it doing well in a rather dry sandy loam with a northern exposure. I have once met with it planted by the side of a little streamlet in the wild garden, where it had an exquisite effect when in flower, and there are many favourable sites to be found which would gain in beauty by the introduction of this pretty spring-flowering plant, which is quite inexpensive.—S. W. FITZHERBERT.

**Pyrus spectabilis.**—The various species of *Pyrus* are very effective when smothered with flowers, and a number of the best should be found in every garden, for in addition to flowering freely they are easily grown, and when once established give little trouble except an occasional pruning. *P. spectabilis* is one of the most ornamental of all, and in addition to the type there are several varieties which, if anything, are finer. It is a native of China and Japan, and was introduced about a century and a quarter ago. In general appearance it is much like an ordinary Apple tree. The flowers are, however, much larger, being nearly 2½ inches across when expanded. When fully open they are a delicate shade of pink, with here and there shading of deeper colour. In the bud stage the colour is richer, being then bright pink. The best varieties are *P. s. flore albo* with white flowers,

P. s. flore-pleno with semi-double flowers, and P. s. Kaido with deeper coloured and rather smaller flowers than the type. Of the three the form with semi-double blossoms is most often met with, and of this many fine specimens are to be found. The variety Kaido, though not so common, is quite as worthy of cultivation, the colour being very fine. All are very fragrant and keep in good condition for several weeks. In autumn the foliage turns to a brilliant orange red.—W. DALLIMORE.

**Daphne Cneorum** is now a beautiful sight in the rock garden at Kew. There is a mass of it covering several square feet of ground, and now simply covered with its rich pink flowers. The plants are growing on the eastern side of the rock garden; that is to say, they have a western exposure. It likes a moist, sandy soil, and, given these conditions, appears to do remarkably well. It is commonly known as the Garland Flower, and is a native of most of the mountain chains of Europe. The small evergreen, lanceolate leaves are thickly distributed on the trailing stems, which rarely exceed 12 inches in height. The beautiful fragrant pink flowers are so freely produced as almost to hide the leaves and stems. This *Daphne* does not like a chalky soil, neither does it require to be grown in almost pure sand as has been recommended.—H. A. P.

**The floriferous Viola.**—Last year I obtained in spring a number of seedling *Violas* from Messrs. Dobbie and Co.'s selected strain, and planted them out in good soil, where they bloomed remarkably well and continuously. In the autumn the ground between the plants was cleared of weeds, and a full top-dressing of vegetable mould given. The result is the plants are now huge cushions of flowers, and, the colours being mingled, the effect is very fine indeed. Really, a half-dozen of them, from their decided colours, habit of growth, and freedom of bloom might appropriately be named, so fine is their quality. Named varieties still appear from time to time, but strains are now so fine that the act of naming is almost a work of superogation. Everyone likes novelties, however, and the colouring of some recent *Violas* is very charming.—R. D.

## DAFFODIL NOTES.

### A RETROSPECT.

**B**Y the time these notes appear the Daffodil season of 1904 will be a thing of the past. At its commencement I wrote in rather a pessimistic mood as regards the prospects, but this was scarcely to be wondered at.

We had had months of incessant rain, and the weather throughout February and March was miserable. However, I am bound to confess that my own Daffodils have been splendid, and that all has come right in the end, thanks mainly to a genial if windy April. The substance of the flowers has certainly been below the average, and colour, as I remarked before, has been generally poor, though Mr. Engleheart for instance, also many of the southern growers, have not experienced this trouble. The fact that most of the Daffodil shows have had record entries scarcely proves that the season has been an especially favourable one. Each year sees additions to the ranks of those who are watching the development of this flower with keen interest, and the result is naturally reflected in the increasing number both of competitors and visitors at the shows. We hear a good deal about how there must soon be a slump in the high prices which are now being obtained for many of these new varieties, but for my own part I fail to see how this can occur when growers of the flower increase in number each succeeding year. It is only the inferior varieties which are likely to fall rapidly in price, and those who buy fresh varieties should, if they are expensive, be careful what they select.

### THE MIDLAND SHOW.

The week following the Royal Horticultural Society's meeting of April 19 came the famous Midland show, and, although at one time doubts had been expressed as to the wisdom or otherwise of altering the date, yet the alteration apparently suited all but the most southern growers. As has already been stated in *THE GARDEN* there was a magnificent collection of flowers, and although some varieties were quite past their best the high quality for which this exhibition is noted was well maintained.

#### MR. CROSFIELD'S EXHIBIT.

As one who has attended each of these shows since their inauguration, I can safely say that I have never seen a finer exhibit in competition for the class of fifty distinct varieties than that staged by Mr. E. M. Crosfield of Wrexham. Not only were the flowers tastefully arranged, but they were also remarkably well grown. The flowers of Minnie Hume were almost the size of those of White Queen. These fifty varieties were as follows: In the poetic section there were six varieties exhibited, viz., Horace, Cassandra, Sir Walter Scott, Chaucer, Herrick, and Almira. Sixteen trumpet Daffodils (four of these seedlings) were included, these being Weardale Perfection, Emperor, King Alfred, Van Waveren's Giant, Mme. de Graaff, Mme. Plemp, Mrs. Vincent, Grandee, Horsfieldii, J. B. M. Camm, Victoria, and Glory of Leyden. The four seedlings were Saladin, Maid Marion, Indamora, and Milady, all sulphur-white trumpet Daffodils. Three of these which call for special mention on account of their high excellence are as follows:

**Saladin.**—An improved but paler Weardale Perfection, raised from a cross between the latter and Mme. de Graaff. The width across the mouth of the trumpet, which is fringed and revolute, is  $1\frac{1}{2}$  inches. The segments are of Mme. de Graaff character.

**Maid Marion.**—This also has segments of Mme. de Graaff character, but the pale yellow trumpet is considerably shorter and very widely expanded, its width at the mouth being no less than  $1\frac{3}{4}$  inches.

**Indamora.**—In this the pale yellow trumpet is 2 inches long, and scarcely recurved at the mouth at all. The segments are like those of the previous two varieties, and the whole flower closely approaches Messrs. Barr's Lady Audrey.

In the Leeds section Mr. Crosfield showed nine varieties, viz., White Lady, Minnie Hume, Catherine Spurrell, Albatross, Duchess of Westminster, Mrs. Langtry, Madge Matthew, Ariadne, and Waterwitch. The incomparabilis section was also represented by eight varieties: Golden Rose, Sulphur Phoenix, Lucifer, Frank Miles, Lady Margaret Boscawen, Blackwell, Princess Mary, and Constellation; while the varieties belonging to other sections were Barri conspicuus, Crown Prince, Sensation, Vivid, Egret, J. Barri, Sceptre, Citron, Nelsoni major, Nelsoni aurantius, and Whitewing. A more representative collection it would be difficult to select, and Mr. Crosfield is greatly to be congratulated on winning the first prize with this magnificent exhibit.

#### MISS WILLMOTT'S GOLD MEDAL GROUP.

But the crowning event of the season was a group of flowers from Miss Willmott's Essex garden, which it is safe to say has never been excelled in the annals of Daffodil history. Standing before this array of beautiful forms one could not help thinking of the years of patient toil which must have been employed to yield such glorious results. Apparently there is no limit to the art of the hybridist,

and each year as it passes leaves us the richer with some new forms of delicious hue and beauty. To make a selection from amongst so many beautiful things, or even an attempt to compare them proved a most difficult task. Therefore, I will only describe just a few of those which appealed to my fancy most:—

**Flag of Truce.**—A delicately beautiful triandrus hybrid of the Snowdrop type. It is, however, smaller and whiter than the latter.

**Furstin Maria Oettingen.**—A lovely trumpet Daffodil of most distinct character and great charm. The whole flower is of very drooping habit; the delicate lemon-white trumpet  $1\frac{1}{2}$  inches long, slightly crinkled at the mouth, and the rim recurved. The segments are disposed like those of Mme. de Graaff, and are white, wide, and very overlapping.

**Lincoln Green** is a perfectly unique flower of the Engleheartii section. It is not very large, being only  $2\frac{3}{4}$  inches across. The coin-like cup is rich golden orange, and the centre deep citron green. Exhibited at Birmingham as Golden Noon, but the name has now been changed as above.

**White Ensign.**—This was exhibited at Birmingham last season, and has greatly improved since then. It is best described as a greatly improved Burbidgei Bianca, with a larger and flatter saucer. This saucer is three-quarters of an inch in width, bright yellow, daintily edged with a faint border of orange. The broad glistening white segments overlap considerably, and the whole flower is  $3\frac{3}{4}$  inches across.

**Adjutant.**—A clear soft yellow incomparabilis, with overlapping segments of perfect shape. The crown, which is a shade deeper than the divisions of the perianth, is beautifully fringed and crinkled. The flower is of medium size, and in colour reminds me rather of Homespun.

**Abaddin.**—Another incomparabilis form. This has a very short and spreading wide open crown of bright yellow. The short lemon-white segments are pointed and of great width in the middle.

**Countess of Strathmore.**—A flower rather of the Dorothy Kingsmill type, but better than that variety. The trumpet is almost the same in colour as this latter, while the divisions of the perianth are of palest lemon, pointed, and overlapping.

Worcestershire.

A. R. G.

## THE LILIES.

(Continued from page 352.)

**L**ILIAM LONGIFLORUM (Thunb.), the long-tubed White Lily.—A very variable species in habit, and many geographical and garden forms are grown. There is no Lily, not even *L. auratum*, that is so generally useful as this. We are well within the mark in stating that hundreds of acres of glass are used solely for the cultivation of *L. longiflorum*, and its use in all forms of floral decoration has reached such limits that a cessation of the bulb supply would cause a panic in the floral farms. Its adaptability for outdoor cultivation is also well marked, provided we do not expect too much and are content with one superb floral display, in the production of which practically all the strength of the plants will be spent. Bulbs globose, with flattened tops, pale yellow, the scales unjointed and with acute tips, roots numerous, but slender. Stems 2 feet high, green throughout, very stout, rooting freely from their bases. Leaves lance-shaped,

5 inches to 6 inches long, five-nerved, slightly revolute, pale green. Flowers one to four in a compact umbel, trumpet-shaped, the tubes narrow, gradually widening from the middle, the petals recurved, 5 inches to 6 inches long. Filaments unequal, so that the anthers are in two parallel ranks of three each, pure white, no trace of pink is found in any part of the flowers. It is common in cultivation, and flowers in August. Thunberg's original form is here described. It is the least desirable of the whole set for garden use, as it does not flower freely, and the growth is dwarf. It grows in widely different areas of Japan and the Chinese littoral, and under varied conditions of soil and situation, but is always confined in its distribution to the cooler temperate regions.

*Var. albo-marginatis* (Hort.), the variegated long-tubed White Lily, is a garden variety. The flowers are snowy white, and the leaves glaucous green, margined and striped with silvery white. This variety in its size, leafage, and shape of flower is an excellent illustration of the true *L. longiflorum*. The majority of Japanese-grown long-tubed Lilies are either multiflorum, Takesima, or more generally eximium—all improvements on the type from various points of view. This variegated form is very beautiful, and if used with discretion is invaluable in pots or for decorations.

*Var. eximium* (Court.).—This is the best white Lily known to cultivation, grown by the ton on Japanese Lily farms for the English bulb market. Bulbs very large, yellowish, often 12 inches to 15 inches in circumference. Stems stout, 4 feet to 5 feet high, green, and rooting very freely from their bases. Leaves three-nerved, dark green, 6 inches to 8 inches long, recurving, and much scattered. Flowers five to eight in an umbel, funnel-shaped, 7 inches to 8 inches long when fully reflexed, the tube narrow, low down, the free ends completely rolled, so that the tips of the three outer petals touch the midribs. Pur white throughout. The flowers are of considerable substance, and droop to the extent the variety Takesima does. It is common in cultivation, and flowers in August.

*Var. formosanum* (the Formosan long-tubed White Lily) is a very pretty variety of dwarf growth, and can be grown for years in the open in Britain. It is the hardiest and dwarfest of all the longiflorums. Bulbs as in the type, but more frequently compound, three to six crowned, their roots numerous and very strong. Stems purplish below, green above, rooting very freely from their bases, where also two to six bulbils are generally borne, rarely exceeding the length of the flowers. Leaves lance-shaped, mere bracts above, clasping the flower-stalk if the flower is solitary. Flowers one to three, very early and very fragrant, expanding twenty days before those of any other longiflorum, the perianths narrowing gradually from the slightly reflexing tips to the bases, 5 inches to 6 inches long, and heavily flushed with pink externally. A newer introduction, the *var. multiflorum*, appears to be a strong growing, wholly white-flowered form of this. It is taller, but similar in many ways, especially in the shortened foot-stalks of the flowers, of which five

to six are usually borne on each stem. Common in cultivation. Flowers in July and August.

(To be continued.)

## THE FLOWER GARDEN.

### WHITE HONESTY.

FOR the wild garden the white Honesty is a very valuable plant, but as a rule only the type which bears flowers of an offensive shade of magenta-purple is seen. This should never be allowed in gardens, but as the white variety springs just as readily from seed and is quite as vigorous as the type, forming, where it has sufficient space, bushes 4 feet in height and 3 feet through, there is every reason why seed of this form should be sown instead. For rough spots and poor soil, where few other things will grow, the white variety of Honesty (*Lunaria annua alba*) proves an excellent plant.

Two years ago a small garden that belonged to an empty house was let to another tenant, who had to make a way into it through the wall abutting on the high road. Immediately behind the wall there had originally been a space about 10 feet wide at the same level as the road, at the back of which space rose a precipitous bank, some 12 feet in height, that formed the lower limit of the garden ground, which sloped steeply up a hillside. Upon making an opening in the wall it was found that the 10 foot space between the wall and the bank had been used for generations as the receptacle of all manner of rubbish, which had filled it up to a depth of 6 feet. In making a sloping pathway from the entrance to the garden above it was found that the heterogeneous collection consisted of large stones, portions of bricks, tin cans, broken slates, crockery and medicine bottles, fragments of tiles, old iron, and other litter. It was decided that the expense of removing some fifty loads of this matter would not be justified by the results to be obtained, and the surface was therefore roughly levelled and covered with 6 inches of soil. Over a portion of this seeds of white Honesty were sown, and how well they succeeded may be seen from the

illustration. The Winter Heliotrope (*Tussilago fragrans*) was planted in another portion. Curiously enough, close to the wall, among the *Tussilago*, a single scarlet Dahlia has thrown up a dozen or more stems and has flowered well for the last two years, the tubers evidently having been thrown away and become buried in the rubbish. *Campanula rapunculoides*, a pest in the border, may here spread to its heart's content. *Tigridias* are now flowering admirably, and self-sown Rose Campions and Mulleins help to cover the ground. On the steep banks of rubbish on either side of the path *Arabis*, *Aubrietia*, and *Malva munroana* (*Sphaeralcea*) grow fairly well, and already hide a portion of the broken shard edges. On the other side of the path *Erysimum peroffskianum* has spread a sheet of glowing orange, and close to the wall a large plant of *Arctotis arborescens*, nearly 6 feet through, which came through last winter unprotected, is doing well. Bordering the path, just before it reaches the level of the garden above, *Woodruff* (*Asperula odorata*) is growing rampantly and spreading in all directions under the shade of young Holm Oaks and Sweet Bay, and on the wall-coping *Sempervivums* are well established. Weeds are kept down, and seeds of annuals and biennials are occasionally sown in the barer spaces, but the perennials in possession are left to work out the survival of the fittest by their own efforts. The struggle for supremacy will be an interesting one, but I incline to the belief that in a few years' time the Winter Heliotrope will have annexed all the space on one side of the path and the *Woodruff* that on the other. At any rate, what was once an eyesore is so no longer, and the transformation has been effected at a merely nominal expense.

S. W. FITZHERBERT.

### MOSSY SAXIFRAGAS WITH COLOURED FLOWERS.

WITH the advent of the *Saxifraga* known as Guildford Seedling a fresh impetus has been given to the group generally known as Mossy, and of which the well-known *S. hypnoides* may be taken as an example. For many years the only coloured member of the group was the dwarf *S. muscoides purpurea*, now quite eclipsed in beauty by Guildford Seedling. As there are now several distinct coloured kinds, and as Guildford Seedling has been



A GROUPING OF WHITE HONESTY.

described as an old plant with a new name, I have endeavoured to obtain all the forms possible that readers of THE GARDEN, by the comparisons I have made of the plants side by side, may have some definite knowledge concerning them. I am the more interested in the Guildford plant because I was one of those who saw it in flower in the garden of the late Mr. Selve-Leonard, when about half a dozen tiny bits constituted the whole stock.

Visiting Mr. Selve-Leonard in the month of May, almost his first words were "I've got a Saxifraga that will interest you, something quite new, and I would like your opinion of it." There was not half a dozen blossoms to look at, but it was easy to see that when the plant became established and covered with the brilliant flowers on a carpet of verdant green it would be very fine. I urged Mr. Selve-Leonard to work up a stock. It is no doubt a chance seedling, and probably its birthplace was Guildford, for Mr. Selve-Leonard told me he knew nothing of it beyond having occurred there as suggested. Moreover, Mr. Selve-Leonard further remarked, "There is nothing like it," and I then pointed out the nearly allied *S. Rhei*, and the two plants were at once compared. I am led to give what I know of the early history of the plant because of the statement made that the plant was

*S. Rhei superba*.—This is a most excellent plant, a fair-sized example in flower, embracing shades of pink and deep rose, that with the slightly coloured stems renders it of value in the garden. Plant, 6 inches to 9 inches high, abundant and profuse bloomer; blossoms fully three-quarters of an inch across, nearly flat when fully open; rosettes distinctly elongated; peduncles much more warmly coloured than in *S. Rhei*, hence a better effect. I regard this as one of the best, an ideal plant for the garden or rockery, and very free blooming in April and throughout May.

*S. Guildford Seedling*.—Presumably a chance seedling from *S. Rhei*, the leaf characters being practically the same. Plant, 3 inches to 5 inches high, stems distinctly glandular, in *S. Rhei* these are almost destitute of hairs; peduncles, calyces, and flower-buds reddish crimson; stem leaves acutely pointed and linear even to the rosette. In other kinds the upper stem leaves are more ovate pointed, the lower ones twice or thrice cleft. There is, therefore, apart from the vivid carmine-crimson flowers, abundant distinction in this plant from all else. It is, indeed, a gem, with much of the stature, when pot grown, of a true alpine. Habit neat and dense, the plant flowering freely and profusely. On April 27 this opened its first flowers, the plants quite exposed in the open



A FIELD OF POET'S NARCISSUS IN LINCOLNSHIRE.

by no means a novelty, and that *S. Rhei purpurea* was identical. I can only say now that there is only one Guildford Seedling, and this the plant I saw in Mr. Selve-Leonard's keeping several years ago. There is, I believe, one named *S. Fergusonii*, and this I have not yet grown. The following brief descriptions will assist in the identification of the several forms:—

*S. muscoides atro-purpurea*.—A very dwarf plant of dense growth, with rosettes small individually. Flowering stem reddish, freely branched; colour, rosy red; flowers, quarter of an inch in diameter; height of stem, 2 inches to 3 inches. This is the most densely flowered of all. Flowering period April to May inclusive. The widely separated stigmas are quite distinct in this kind.

*S. Rhei*.—This is given in the "Kew Hand List" as a form of *S. muscoides*. The manner of flowering and the form of the rosettes are, however, distinct. Plant, 4 inches to 8 inches high; stems, pale pink, with few hairs; flowers, pink at first, much paler later; rosettes, bright green, spreading, the divisions of the thrice cleft leaves bluntish and more fleshy than in the above. This is a sparsely flowered plant in comparison to the first.

and in pots. It is, therefore, the latest to begin flowering.

*S. Rhei purpurea* is another name for *S. R. superba*, and of others I have tested that received under *S. hypnoides purpurea*—a Continental name I believe—is very near to *S. Rhei superba*, differing only in the more rosy coloured flowers. In all probability it is one of a batch of seedlings.

Hampton Hill.

E. H. JENKINS.

### A NARCISSUS FARM.

A FEW days ago one of the finest sights in Lincolnshire was the bulb farm of Mr. Wellband at Little London, a hamlet in the parish of Spalding. Our illustration shows a field of *Narcissus poeticus*, a brave mass of white, and scenting the wind with its sweet fragrance. We wrote of Daffodil growing in Lincolnshire in a recent issue, so further notes are needless now. The *Narcissus* growing industry in Lincolnshire has assumed large proportions, and tons of flowers are sent from these broad acres to the London market in spring, especially of *N. poeticus*.

## THE FRUIT GARDEN.

### STRAWBERRIES AT GUNNERSBURY HOUSE.

PROBABLY there are few gardeners who are nearer to the solution of the problem, how to furnish a supply of Strawberries all the year round, than Mr. Hudson at Gunnersbury House.

It may be that others are largely doing the same, but this is not generally known. In any case what is done at Gunnersbury is general knowledge. That Strawberries are furnished there for some eight months in succession is, I believe, the case. Once forcing begins from early April onward, the supply till the end of October, or even into November, is constant and plentiful. With great quantities of plants in pots, chiefly of Royal Sovereign, keeping up the supply, there follow pits or frames filled with plants under cool treatment, which precede by a week or ten days the fruiting of the plants grown in the open ground. Then those take up the supply, and ordinary sorts carry it on for several weeks. At the same time the old breadths of the alpine are giving fruit in plenty. By the time the outdoor stocks of the Royal Sovereign and other large fruiteders are over, and the old beds of the alpine become less productive, the younger beds of these, from which in the spring the flower trusses were gathered, come into bearing, and fill up the space that would exist in those gardens where alpine are not grown. Of these Mr. Hudson has on a south border, and in considerable quantity, St. Joseph, St. Antoine, and Oregon, from all of which the summer flowers are removed to induce the plants to fruit freely in the autumn, as they undoubtedly do. But there is still obtained from Royal Sovereign a good supply of excellent fruits. Outdoors early forced plants put out into good soil invariably flower and fruit freely in September and October. A few hundreds of similar plants, so soon as their fruiting in heat is over, are taken to the potting bench, turned out of pots, which are as fast washed and dried, the balls of soil and roots hard rubbed down, and the plants at once repotted into their old 6-inch pots, and stood out in the full sunshine to make new roots and crowns, as they do in a remarkable way. Then in the late autumn placed on shelves in gentle warmth these plants fruit again well. If kept till the spring they again fruit in their pots and in heat. Seed of alpine Strawberries is sown every year. Just now the seedlings are bursting through the soil in shallow boxes in gentle heat. Yet there is nothing done at Gunnersbury House that cannot be accomplished in any other good garden.

A. D.

### THE PEACH BLISTER IN SPRING.

THE season so far has been favourable to the tender growths of the Peach, and there should be much less trouble with this pest this season than last, but trees in exposed places may be attacked yet. Much depends upon the soil, whether heavy or wet. Many growers may not agree with me, but from close observation I have found that it is most difficult to arrest blister in such soils. There can be no question that some varieties are more readily attacked than others. Trees on a west aspect escape, whilst those in full south are badly blistered. Trees on a west aspect, no matter what variety, I have known to escape, whilst those on a south are in a bad state. This is easily explained, when the east winds have had free play the trees suffered badly. I have referred to soils and the condition of the roots. Only recently I saw some trees that had suffered for a few seasons, which when removed to a better soil and on a western aspect recovered. The one remedy that everyone must adopt is the removal of the worst leaves. This is only a partial one, as those left are more or less affected, and the best help is genial weather, so that the trees may grow out of the trouble, and this in a way may be forwarded by a little shelter from blinds, mats at night, or even branches to

break the force of the cold winds. Much can be done in cold soils by raised borders. One often sees the border lower at the wall than the ground in front, and this I would reverse in places where the trees suffer badly, as once the trees are in a healthy state and there is a free flow of sap there is less blister. I have never seen trees grown under glass blistered, I mean those that received proper attention, so that the evils referred to must be greatly influenced by unsuitable conditions, mostly climatic. If anything can be done for a short season to assist growth there is a great gain, as once the trees become bad or are allowed to take their chance the new growths are very poor. They soon become badly swollen and most unsightly, the crop is lost, and the next season's wood also.

G. W. S.

### THE BEST OUTDOOR TOMATO.

It will be difficult to find a variety of Tomato for outdoor work so capable of standing the changes in our variable climate as Sutton's Earliest of All. The plants should be got out as early as possible in deeply-dug, fairly light land, not too lavishly manured. In some parts of Lincolnshire Conference has been successfully grown as an outdoor variety; but in this case an early start in the open is of the utmost importance, as well as a warm position and suitable soil.

R. D.

### THE EARLIEST STRAWBERRIES ON SHELTERED BORDERS.

For some years the aim of Strawberry raisers has been to get earlier fruits of good quality. With regard to the latter I shall be brief, as the culture is different in certain soils. What one may regard as of first-rate quality in one place is not so in another. Earliness is a great gain, though it must not be achieved at the expense of flavour, crop, and free growth. A few years ago several very early sorts were sent out that did not find great favour; I refer to the small sorts, such as No. 1 and Black Prince. Both these, as regards flavour, could not be beaten, but the fruits were small and unprofitable. Of larger fruits of recent introduction Royal Sovereign heads the list, but its earliness is a fault. The flower truss is produced so early and when the foliage is scanty that the embryo fruits suffer when severe weather occurs early in May; of course, this applies to the south, though in the north with later bloom there is the same difficulty. Take the older Vicomtesse Héricart de Thury; this is an early variety. Here we have a very different plant. The flower truss is less prominent early in the season and the leafage greater, so that the early flowers (though not so early as Royal Sovereign, which must be taken into account) are rarely injured.

The Laxton, introduced in the autumn of 1901, is not quite so early as one of its parents, the Royal Sovereign, but it can be included in this note, as it differs greatly from the parent. The growth is very free, and the flower-stalk less prominent, the flowers being better protected. Even early in May there is a good growth of leafage, which is well above the flower trusses. Shelter is necessary during the next week or two. For our earliest supplies we grow maiden plants, the chief merits being earliness, large fruit, and greater freedom from insect pests, which in poor or light soils are troublesome. I refer more particularly to wireworm, which is difficult to get rid of when the plants remain a long time in one place, no matter what variety is grown.

To forward early plants spare frames are an advantage, and in gardens where glass is plentiful the frames used thus are invaluable, as they serve so many purposes. We use them largely for vegetables in winter and salads in autumn. Of course, large breadths cannot be covered in the way described. It is surprising what a lot of frost even a slight protection will ward off, but when severe weather is likely we double the nets, and with a few of the most forward plants use canvas or a warmer shading. I must admit the work in the garden is added to, but it is labour well repaid, as a much longer season is obtained; but,

what to us is more important, we get an earlier supply. If only a few days are gained this is important, as at this time of year good fruit is so scarce that the outdoor Strawberry crop is doubly welcome. It is a relief to Strawberry forcers to clear out their stock from under glass, which when grown in fruit houses is so liable to red spider. I should point out that the earliest flowers are usually the best, and these are worth protecting in some seasons. Last year the weather during the third week in May crippled the early Strawberry crop in the south and western portion of the country, so that for home supplies timely shelter, which costs little, is worth a trial. G. WYTHES.

### APPLE LANE'S PRINCE ALBERT.

In some of the Lincolnshire market gardens and orchards this Apple is a great favourite on account of its firm, handsome fruits, abundant crops, and healthy constitution. It has to a large extent superseded Lord Sutfield and Lord Grosvenor, although it is not, of course, such an early variety as either of these. Still growers are much more certain of a good crop from Lane's Prince Albert than from the other two mentioned, and for this reason it is a more profitable market Apple. As an Apple for general culture, whether in a small or large private garden or in a market orchard, Lane's Prince Albert is a variety that is hard to beat. I have known it to bear splendid crops regularly for years as a bush, and it is no less fertile as a standard. Mr. Bunyard says of it that "it is one of the most valuable Apples, retaining its freshness to the last. It bears very freely, and being of pendent growth is valuable for grafting on old trees. It does not make a stout standard, but as a plantation tree on the Paradise stock it bears enormously. The branches should be thinned and kept open." This Apple is in season any time after November, and fruits may be kept well until April.

A. H. P.

## TREES AND SHRUBS.

### AMELANCHIER CANADENSIS.

OF all the early spring-flowering small trees there is none so beautiful and so graceful as this, the Snowy Mespilus or June-berry. Perhaps this is a rather strong statement to make, but as it is the first large shrub or small tree with white flowers to come into bloom it more strongly recommends itself. Unlike the Almonds and flowering Peaches, it is not cut by spring frosts, unless they are exceptionally severe. It is usually said to grow to a height of 6 feet to 8 feet, but here we have several large bushes of it about 12 feet high and 8 feet or so in diameter. In the autumn the leaves turn to a bright golden-yellow colour. The fruit is a small purple-red berry of no economic value in this country, though in America (its native habitat) it is used for cooking and preserving. The fruits of *A. canadensis* ripen in June, and are cleared by birds before they are properly ripe, by which means they have become scattered about through the Pine woods here to such an extent that they are to be seen in all sizes and ages. In the middle of the heath, nearly half a mile from any other plant of Amelanchier, there is a fine bush which has grown from a seed carried by birds. *A. canadensis* can be grown as a standard by keeping it to a single stem, but it is best to let it form a bush. It grows and flowers best on moderately dry, sandy ground, growing rapidly when once established, and is very easy to transplant. It can be propagated by detaching suckers with a portion of root attached in the winter-time; or by seeds, which readily germinate after the fruits have been mixed with sand and are rotten, and keeping them until the next spring.

Bagshot, Surrey.

J. CLARK.

### XANTHOCERAS SORBIFOLIA.

This handsome flowering shrub is, as stated by "H. P." (page 286), by no means generally known

in gardens. Why this should be so it is difficult to say, for it is a native of China, is perfectly hardy, and exceedingly ornamental both in its flowers and foliage. Its one drawback is that its blossoms and leaves, being produced simultaneously in the month of May, are sometimes damaged by late frosts and bitter winds while tender and undeveloped. Though introduced more than thirty years ago, there are many gardens containing good collections of flowering shrubs in which the *Xanthoceras* is not represented. The blossoms, which are borne in dense racemes, are in the best form pure white, rather over an inch in diameter, with a band or blotch of carmine at the base of the petals. The foliage, which closely resembles that of *Spiraea lindleyana*, is very ornamental, each leaf-stalk bearing seven serrated, pinnate leaflets of a bright green colour, so that, even when out of flower, the *Xanthoceras* is a decorative object. The finest specimen that I know is about 12 feet in height and as much through, and is standing in an isolated position on a sheltered lawn, where it makes a beautiful picture when in full flower. This example fruits annually. The fruits are much after the style of those of the Horse Chestnut, the husk splitting open in the autumn into three divisions and disclosing the brown seeds within, from which young plants are easily raised. The *Xanthoceras* is occasionally trained against a wall, but its shrubby habit of growth renders it quite unsuited to such treatment. There are some forms evidently raised from seed in which the colour of the flowers is of a grey-white, and the blotch at the base of the petals is dull in tint, while the flowers vary considerably in size, so that it is well to see a plant in flower previous to procuring it. We have lately been shown that this shrub is valuable for early flowering under glass.

S. W. F.

### FLOWERING CURRANTS.

SINCE its introduction by David Douglas, collector for the Royal Horticultural Society, in 1826, the Californian *Ribes sanguineum* has proved itself well suited to the English climate, and in most parts of these islands it occupies a prominent position among flowering shrubs. The fact that a variety (King Edward VII.) was given an award of merit at a recent meeting of the Royal Horticultural Society has directed renewed attention to the several desirable forms of this beautiful flowering Currant, some of which differ considerably from the type. Most notable among them are album or albidum, with whitish blossoms; atro-sanguineum and atrorubens, two richly-tinted forms, to which must now be added the newer King Edward VII.; malvaceum, the flowers of which are of a peculiar lilac-pink; and flore-pleno, a very desirable variety, with double flowers, which are later in expanding than the others. They are of a pronounced rich red colour. Though written more than fifty years ago, Loudon's words concerning this *Ribes* are as applicable now as they were at the time. He says: "By far the most ornamental species of the genus. It is easily propagated, and as hardy as the common Black Currant. It flowers profusely, and, coming into bloom early in the season, forms the most splendid bush to be seen in British shrubberies from the middle or end of March to the beginning or end of May." The foliage of the flowering Currant, too, is rarely troubled by insects, while it has of late been more used for flowering under glass than it was formerly.

A second species—*Ribes aureum*, known popularly as the Missouri Currant—scarcely has its merits sufficiently recognised, for it is certainly a very desirable shrub. It is of looser growth than *R. sanguineum*, while the rather pale green leaves are quite smooth. The flowers are of a bright golden-yellow, and therefore quite distinct from any of the varieties of *R. sanguineum*. A hybrid between the two named species has been long in cultivation, and is a distinct and beautiful shrub. This latter remark should, however, have been limited to the best forms, for *R. gordonianum*, or hybridum as it is often called, varies a good deal in merit, a peculiarity common to many hybrids. The flowers show a curious blending of red and

yellow. There is, I believe, a certain amount of doubt regarding its origin, but it is generally considered to have been raised by the late Mr. Donald Beaton (of zonal Pelargonium fame) while gardener at Shrubland Park about fifty years ago, but whether an accidental seedling or not I cannot say. T.

### PAULOWNIA IMPERIALIS.

THIS handsome flowering tree is not often seen in perfect bloom in this country, for, the buds being formed in the autumn, winter frosts, and more especially those that occur in the spring when the buds are swelling, have a disastrous effect on the subsequent flowering, the buds being so injured that but few of them are able to expand and, instead of the long, upright racemes holding ten or a dozen large, lavender-blue, Gloxinia-like blossoms, but one or two expand on each flower-spike, this paucity of bloom detracting greatly from the effect of the tree. A sheltered site absolutely protected from the north and east winds should therefore be selected for planting the Paulownia, and in such a situation the flowering has the greatest chance of being satisfactory, though even in such an ideal spot a bitter winter will often leave its mark in a poor display of blossom. This year a fine specimen in the public gardens at Torquay is flowering better than it has for many seasons, for the past winter has been an exceptionally mild one. This tree is growing immediately beneath a lofty perpendicular cliff, which completely shelters it on the north-eastern side. In Spain the Paulownia flowers superbly, and I remember some years ago seeing, early in the month of April, the fine trees surrounding the large square at Ferrol in full bloom, every tree a cloud of lavender-blue. There are many good examples in the south-west, one of the finest that I know being about 30 feet in height. The tree, which is a native of Japan, and, therefore, fairly hardy, was introduced into this country more than sixty years ago. The Paulownia is often used with excellent results for sub-tropical effect. If planted from 3 feet to 4 feet apart, cut down to within an inch of the previous year's growth, and confined to a single stem, they will attain a height of from 10 feet to 12 feet in the season, and produce enormous leaves, often exceeding 2 feet in diameter. S. W. FITZHERBERT.

### HARDY EVERGREEN OAKS.

(Continued from page 354.)

**Q**UERCUS COCCIFERA (the Kermes Oak).—In its native countries the Kermes Oak is sometimes a small tree, but usually it is a shrub of neat, dense habit, and one of the most interesting and distinct of the dwarf evergreen Oaks. The largest specimens I have seen in Great Britain are a little more than 10 feet high, and of rounded, bushy form. It grows very slowly, and so thickly set are its crowded branches with small spine-tipped leaves that healthy specimens are almost impenetrable. The leaves vary somewhat in size in the different forms of the species, but they are always small—usually half an inch to 1 inch long—of oblong or obovate outline, and bright green on both sides. Sometimes, however, they are 2 inches long. The teeth with which the margins are armed are stiff and Holly-like. The acorns are not always ripened in this country, but during the long series of hot, droughty summers at the close of the last century they came to perfection several times, and young plants were raised from them. Such seasons, of course, approximate most closely those of the countries of its origin. It occurs wild along the north shores of the Mediterranean from Spain to Asia Minor.

Before the discovery of aniline and other dyes, this Oak used to be of some economic importance as the source of a crimson dye.

This is furnished by the Kermes—small insects that attach themselves to, and feed on, the leaves and bark of this Oak. This dye is described as being so permanent an one that “the old Flemish tapestries dyed with it two centuries ago have lost none of their brilliancy.”

*Q. cuspidata*.—In England Messrs. Veitch appear to have been the first to cultivate this Japanese species with success. It has been introduced to cultivation by them in quantity. But the credit of its first introduction to Europe belongs to Siebold, who sent home acorns enveloped in clay as long ago as 1830. Whilst in Japan it is described as a beautiful tree 30 feet to 40 feet and more high, it is in

narrow, blunt apex. The acorns are small and pointed, being half an inch to three-quarters of an inch long, but I am not aware of its having fruited in Britain.

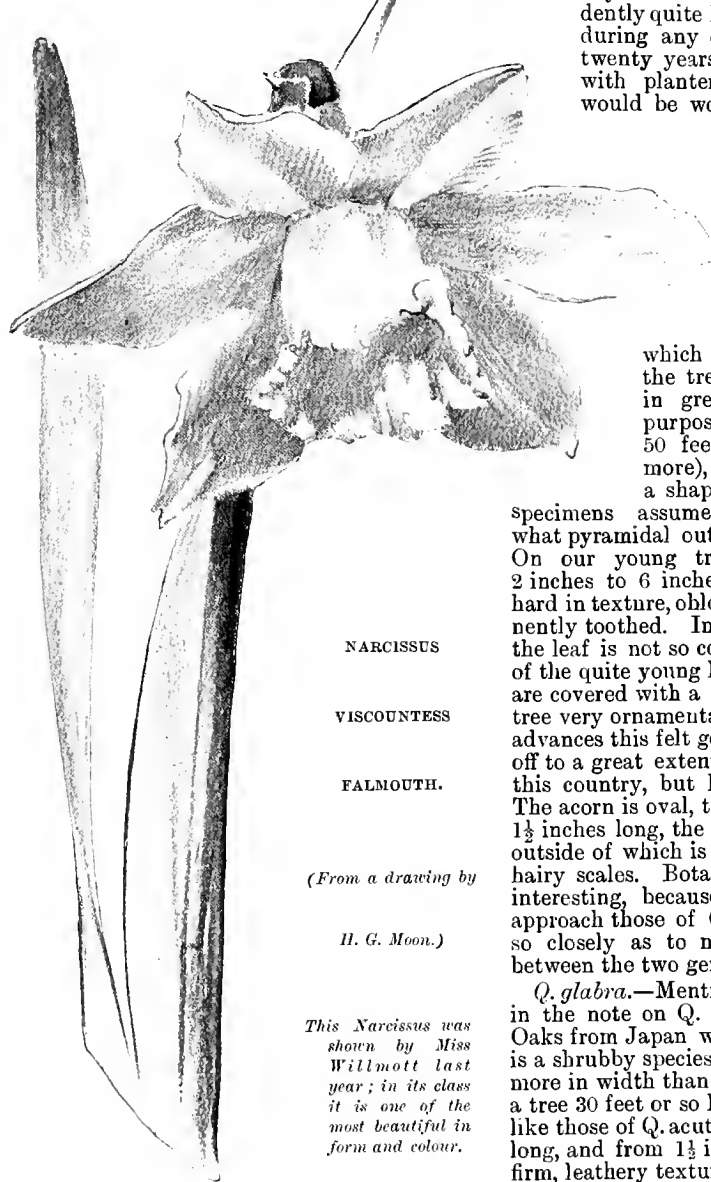
*Var. variegata*.—In this pretty variety the centre of the leaf is green, the margins having a broad, irregular band of yellowish white. The leaves are smaller than in the green-leaved type. In spring they are exceedingly pretty, and the plant is sometimes used for greenhouse decoration.

*Q. densiflora* (Tan-bark Oak).—Of the Californian evergreen Oaks this appears to be one of the most likely to succeed in Britain. It is, however, very rare. There are only two trees in Kew, which are 18 feet and 20 feet high respectively, and I do not know of any elsewhere. The species is evidently quite hardy, and has not suffered during any of the winters of the last twenty years. Were Oaks as popular with planters as they used to be, it would be worth while to endeavour to introduce the tree in quantity. This would not be a difficult matter, for the tree is abundant in Western North America, especially in the coast region of California. Owing to the great value of its bark,

which is very rich in tannin, the tree is, however, being felled in great quantities for tanning purposes. It grows to heights of 50 feet to 70 feet (occasionally more), and in open places develops a shapely head; even our young

specimens assume a well-balanced, somewhat pyramidal outline without artificial aid. On our young trees the leaves vary from 2 inches to 6 inches in length, are thick and hard in texture, oblong and pointed, and prominently toothed. In old trees the toothing of the leaf is not so constant. The lower surface of the quite young leaves and the young shoots are covered with a white felt, which makes the tree very ornamental in spring. As the season advances this felt gets duller in colour and falls off to a great extent. The tree has flowered in this country, but has not, I believe, fruited. The acorn is oval, three-quarters of an inch to 1½ inches long, the base enclosed in a cup, the outside of which is coated with narrow, linear, hairy scales. Botanically, this species is very interesting, because some of its characters approach those of *Castanea* (Sweet Chestnut) so closely as to make it a connecting link between the two genera.

*Q. glabra*.—Mention was made of this species in the note on *Q. acuta* as being one of the Oaks from Japan with Laurel-like leaves. It is a shrubby species under cultivation, growing more in width than in height, but in Japan is a tree 30 feet or so high. The leaves are much like those of *Q. acuta*, being 4 inches to 7 inches long, and from 1½ inches to 2 inches wide, of firm, leathery texture, and deep lustrous green. They are, however, to be distinguished from those of *Q. acuta* by their shape; in the latter the blade is broad and cut off more or less bluntly at the base, where it joins the leaf-stalk, whereas in *Q. glabra* it always tapers very gradually down to the leaf-stalk, and is more pointed at the base than at the apex. This Oak has produced acorns at Kew. They take two seasons to reach maturity, and are then rather under 1 inch in length, narrow, and taper to a point. As happens with other



NARCISSUS

VISCOUNTESS

FALMOUTH.

(From a drawing by

H. G. Moon.)

This *Narcissus* was shown by Miss Willmott last year; in its class it is one of the most beautiful in form and colour.

this country distinctly shrubby. In habit it is, perhaps, the most elegant of all the evergreen Oaks, the branches being slender and pendulous towards the ends. The leaves average from 2½ inches to 3½ inches in length and from 1 inch to 1½ inches wide; they are pale glossy green above, with a grey, rather silvery sheen beneath. The margins have a few shallow, blunt teeth, frequently reduced to mere undulations, and the end is drawn out into a long,



evergreen Oaks, batches of seedlings show some diversity in shape of leaf. Some forms thus obtained have been named, such as *latifolia*, with broader leaves; and *longifolia*, with longer ones than what are regarded as typical, but these differences to my mind are scarcely worth distinguishing.

*Q. glauca*.—In a wild state this Oak—a native of Japan and China—is very variable in its leaf character. On the same tree even leaves may be found that differ from each other more than they do from those of distinct species. The average leaf, however, is Laurel-like, more or less blue-white beneath, 3 inches to 5 inches long by 1 inch to 2 inches wide, the margins on the terminal part being set with incurved teeth. Usually the leaves are quite smooth, but in one variety they are covered with silky hairs beneath. Dr. Henry collected this species in Ichang, China, and describes it there as "20 feet high and producing excellent wood." In Japan it is 40 feet or more high. The acorns, usually solitary, but occasionally two or three together, are borne on very short stalks. Only shrubby examples exist in cultivation in Britain, and they are very rare.

*Q. occidentalis* (the Western Cork Oak).—Very similar to *Q. Suber*—the true Cork Oak—and often confused with it, this species probably exists in several places in this country as *Q. Suber*. The differences between the two species were first detected and pointed out by the botanist Gay nearly fifty years ago. It has the same general aspect as *Q. Suber*, similar

corky bark and somewhat similar leaves, but it differs in requiring two seasons (or fifteen or sixteen months) to ripen its fruits, whilst *Q. Suber* ripens them in one season (or in about four or five months). Other characters of less importance distinguish the two species, as does also their geographical distribution. As the name of the present species implies, it is found on the Western or Atlantic side of South Europe, while *Q. Suber* is found north and south of the Mediterranean. It is represented in the Kew collection by trees about 20 feet high, now bearing the half-grown acorns of last year, which under favourable circumstances would ripen the present season.

*Q. phillyræoides*.—This is one of the handsomest and most desirable of shrubby evergreen Oaks. It is a native of Japan, and was introduced to Kew by Richard Oldham, a collector sent out from that establishment to Japan in 1861. One



ROSE FRAU KARL DRUSCHKI. (Much reduced.)



ROSE L'IDEAL. (Much reduced.)

specimen introduced by him is now in the collection of Oaks at Kew, and has grown into a handsome bush 9 feet or so high. The species is always bushy in habit, the plant forming a dense leafy mass not unlike a *Laurustinus* or a large-leaved *Phillyrea*. The largest leaves are 2 inches to 3 inches long and about half as wide; the smallest have about half those dimensions. Both surfaces are quite smooth and bright green, and the margins, more especially towards the apex, are set with incurved teeth. The leaves vary in outline, some are narrow-oblong, others obovate or elliptical. Though the species is indisputably hardy I do not remember to have seen this Oak produce acorns in this country. Its neat habit and uniformly bright and cheerful green give it a special value as a lawn shrub.

*Q. Suber* (the Cork Oak).—Whilst this Oak is not equal to the Holm Oak either in size or beauty,

nor has the same garden value, it is quaint and picturesque in habit, and is, besides, particularly interesting as the source of the cork in every-day use. It is a native of Spain, South France, Italy, and Algeria. Average specimens are 20 feet to 30 feet high, but in favoured situations—more especially by the sea—it reaches a stature of more than 40 feet. There is a fine specimen at Goodwood with a trunk over 4 feet in diameter, and in the famous, but now derelict, garden of former Dukes of Argyll at Whitton Park, near Hounslow, there are specimens 45 feet high. Devonshire is also rich in noteworthy examples. The habit of the tree is dense and spreading, and it is often as wide as it is high. Its most characteristic feature, and the one that distinguishes it from all other Oaks except its ally (or, perhaps, variety) *Q. occidentalis*, is, of course, the thick, rugged, corky bark. In cold districts its growth is slow, but it is hardy, and at Kew has never suffered any serious injury by frost. The leaves are variable in shape, but are usually oblong, 1½ inches to 3 inches long, more or less lobed or toothed, and covered beneath with a very close pale down. The acorn, which usually fails to ripen here, is about 1 inch long, and half of it is enclosed in the cup.

Kew.

W. J. BEAN.

(To be continued.)

## THE ROSE GARDEN.

### ROSES FRAU KARL DRUSCHKI AND L'IDEAL.

IT would be difficult to name two Roses more unlike than these. Frau Karl Druschki is a Hybrid Perpetual, and a perfect show flower of a dead white colour. Something of its almost perfect form is shown in the accompanying illustration; but it is the purity of the whiteness that is so charming to me. I hope to show it well this year. Every good Rose grower knows L'Ideal; it is a Noisette, very strong in growth, and the flowers are a warm red colour which stands sun well.

ROSARIAN.

### A NEW ROSE—PHARISAER.

THIS beautiful new Rose will be much sought after by all who can appreciate a variety with exceptionally long buds. It is undoubtedly a seedling of Mrs. W. J. Grant, but has a far better constitution; in fact, the growth appears to be very much more vigorous, and yet quite as free-flowering. The flowers are thin, but the petals are of such splendid texture that they remain closed up for a considerable time before they expand. They are very large, and of a lovely salmon-rose colour, shaded silvery white. P.

### A GOOD ROSE SEASON.

It is, perhaps, somewhat early to make the above statement, but we have not had such a promising season for some years so far as the present one. If frosts will but keep off Roses should be grand at the exhibitions. Of course the aphid and maggot are troublesome, but when is it they are not? And we cannot expect to have everything running smoothly. Let amateurs be on the alert for frosts. Early syringing with cold water before the sun rises is a well-tryed remedy, and the ardent rosarian should make such arrangements in order that his Roses receive this timely attention, and much vexation will be saved. P.

### THE FARQUHAR ROSE.

THIS is a climbing Rose of the Polyantha type, none the less welcome because of American origin. It is the result of crossing Rosa wichuriana with the Crimson Rambler, the colour of the flowers, which are semi-double, pink, passing to white, and it is said to be a valuable addition to the climbing Roses. R. D.

## THE INDOOR GARDEN.

### A NEW CYCLAMEN.

**C**YCLAMEN PERSICUM GIGANTEUM (ROCOCO) is among the novelties recently introduced by Schmidt of Erfurt. There is more than one beautiful variety among the giant flowered Cyclamen, but there is not one of them to compare with this novelty. The Papilio cyclamens were one of the first introductions of this kind; they produced beautiful and varied forms of flower, but they had this fault, that they were not strong, compact growers, and the flower-stems were weak. The variety Rococo, on the contrary, forms strong, compact plants, bearing large flowers of beautiful colouring, and an abundance of leaves upon tall, stiff stems. This variety equals in this respect the best of the Cyclamen persicum giganteum splendens strain. One difference between the old and the new varieties is that the five or six petals are not generally erect and turned inwards, but form a large round, flat flower. The diameter of a flower is sometimes as much as 13 centimetres; among them there are veritable giants. The petals are finely undulated and frilled, and the colour of the flowers is very charming. Pure white, white with a darker centre, deep red, and pink in the most beautiful shades are found in this new race.—*Le Jardin*.

### CANARINA CAMPANULATA.

AMONG the more uncommon plants at the meeting of the Royal Horticultural Society on the 3rd inst. were some specimens of this Canarina. It is a native of the Canary Islands, from where it is said to have been introduced as long ago as 1696, so that the claim of novelty which is to many such a great recommendation cannot be put forward on its behalf. This Canarina is a herbaceous plant, and forms a stout fleshy root-stock that produces stout, succulent shoots that reach a height of 3 feet or more. These shoots branch out towards the upper part, and are there plentifully furnished with leaves. The flowers are drooping, bell-shaped, and about the size of an Abutilon, to one of which, A. Darwini, they bear in colour a considerable resemblance, being yellowish red, veined with a deeper

tint. After flowering it gradually goes to rest, passes the summer in a dormant state, and starts into growth in the autumn. Cultivators are by no means uniformly successful in inducing it to flower, though to some it gives but little trouble in this respect. The most successful method of culture is, directly the leaves turn yellow, which they do soon after flowering is past, to gradually lessen the water supply till by the time the plants are dormant it is discontinued altogether. A sunny shelf in the greenhouse or in some similar position is then best for the plants, and there they can be allowed to remain till summer is well advanced. During that period no water need be given. Towards the end of the summer or in early autumn the new shoots will make their appearance, when the plants may be shaken almost clear of the old soil and repotted, after which a little water should be given, increasing the supply as the plants develop. A mixture of loam, leaf-mould, and sand suits it well. It will be found a very good plan to put the plants at first into comparatively small pots, and shift them into their flowering ones afterwards. Good strong specimens will need pots 9 inches to 10 inches in diameter for their development. The temperature of an ordinary greenhouse is all they need. Some cultivators pinch out the tops of the growing shoots when the plants are a few inches high, while others prefer to let them grow unchecked. H. P.

## ORCHIDS.

### CYPRIPEDIUM ROMULUS.

**A**HANDSOME hybrid Cypripedium, known also as C. nitens Cleverley's variety. It is the result of a cross between C. nitens and C. insigne Chantini, the former being the seed parent. It reminds one a good deal of C. insigne Chantini, which, however, it surpasses both by the beauty and dimensions of its flowers. The flower-stem is vigorous; in colour it is green, heavily marked with purple-brown. The dorsal sepal is broadly obovate, the lower part revolute; the upper half is pure white, the lower half green or yellowish green, heavily blotched with deep purple-brown. The petals are greenish yellow, tinged and lined with deep brown. The pouch is large, rather shorter than the lower sepal, yellowish green, lined and suffused with purple-brown. A good coloured representation of this Orchid is given in the *Dictionnaire Iconographique des Orchidées*.

### LÆLIO-CATTLEYA CEIVE.

THIS beautiful Lælio-Cattleya is a hybrid obtained by Mr. Norman C. Cookson, Oakwood, Wylam-on-Tyne, between Cattleya dowiana and Lælia præstans, the former being the seed parent. It was first shown by Mr. Cookson in September, 1893, but was exhibited in much finer form in September, 1896, when a first-class certificate was given to it. It is closely related to L.-C. Ingramii (L. dayana × C. dowiana aurea), and it might be described as a variety of L.-C. Ingramii, if, as many maintain, one admits that L. præstans and L. dayana are simply varieties of L. pumila. In general appearance the plant much resembles L. præstans, but it is more robust and the flowers are larger. The sepals and petals are bright lilac-rose; the lip is large, with crimped edges, and crimson-purple in colour, with a beautiful golden-yellow throat. In the *Dictionnaire Iconographique des Orchidées* for March there is an excellent coloured plate of this hybrid.

### LÆLIO-CATTLEYA TRUFFAULTIANA VAR. FOURNIERI.

THIS is a very handsome flower of exceptionally rich colouring. It is a hybrid obtained by M. Louis Fournier of St. Barnabé, near Marseilles. The parentage of this variety differs from that of the type L.-C. truffaultiana, in that Cattleya dowiana var. marmorata was the pollen parent of the former, whereas in the case of the latter it was

C. d. aurea. L.-C. t. Fournieri is a good deal like the type so far as the general appearance of the flower is concerned. The petals are less distinctly lined with deep red; the lip is lightly marked with yellow in the front portion; the sepals and petals are orange-yellow, while the large open lip is rich purple. An unusually handsome flower. A. H. P.

## WORK FOR THE WEEK

### PERISTERIA ELATA.

POTTING may now be taken in hand. Use a compost of two parts good loam and one part each of peat and leaf soil mixed well together with plenty of small crocks and coarse sand, to keep the compost porous; afford a good drainage of clean crocks, filling the pot to the depth of one-third. Over the crocks place some good lumps of fibrous loam to prevent the fine particles working down and clogging the drainage. Keep the compost sufficiently low to allow of a top-dressing of sphagnum. Give them a light position in the stove Orchid house, and water very carefully till the growths have made a good start from the time the leaves begin to unravel themselves till the completion of growth. Healthy plants will benefit by copious supplies. After full development the supply should be gradually reduced, and during the resting period very little will suffice, but enough should be given to maintain the pseudo-bulbs in a plump condition.

### CATTLEYA SUPERBA.

THIS somewhat difficult species is now starting into growth, and if repotting is necessary it may now be done, using a compost of peat two-fifths, chopped sphagnum two-fifths, and one-fifth of leaf-soil. Fill the pots to the depth of one half with rhizomes and pot very lightly, and surface with sphagnum. The Dendrobium house or a light situation in the stove Orchid house is preferable to the Cattleya house during the growing season. During active growth afford water freely, and spray them overhead on bright days frequently.

### SHADING.

SOME Orchids benefit by a shading of tiffany or lath blinds, others prefer more gloomy conditions, so it is necessary as far as possible to group the plants. In addition to our movable blinds we paint over the glass where we have Orchids, using a mixture of plain flour and water. All such Orchids as Odontoglossums, Arides, Vandas, Phaius, Cypripediums, Phalaenopsis, and all young seedlings should be now given this additional shade. During days when the sun is not powerful the movable blinds need not be lowered.

### EXHIBITING ORCHIDS.

DURING the next few months a large number of Orchids will have to stand, in some cases, two or three days in the show tent. Generally this can be done without any great harm accruing, provided the plants have been prepared for the ordeal, and are specially treated for a few days after their return home. Those in the hot, moist houses demand most attention both before and after the exhibition. Much harm can soon be done if they are taken direct from their growing quarters to the show tent; the change should be gradual. Soon after the flowers are perfectly developed—not before, otherwise they would be inferior—the first change should be given, gradually reducing the supply of water as they are placed into cooler and drier houses. For two or three days previous to packing no water should be given; much less risk is run if the plants remain dry during the time they are away from home. It may shrivel them a little, but if the roots are preserved from chill, which is much more easily done when the plants are quite dry, they soon recover. The flowers should be removed immediately the plants arrive home, and no water should be given for a few days after the plants have been restored to the various houses. The same treatment is suitable when Orchids have to be taken into the dwelling-house with few exceptions.

### SOPHRONITIS GRANDIFLORA.

THE present season is a favourable one to give this charming Orchid a thorough overhauling,

cutting out any dead pseudo-bulbs, and when potting is not necessary renovate the surface by removing the old and adding fresh. This species should not be disturbed more than is absolutely necessary. Pans are the most suitable, and a good drainage of crocks and rhizomes should be given, half filling the receptacle. Equal parts of fibrous peat and chopped sphagnum provide a good rooting medium. This plant is generally grown in the Odontoglossum house, but we find the coolest end of the cool intermediate house gives the best results. Water at all seasons should be carefully given, yet sufficient to maintain the bulbs and leaves in a plump state is essential, and when grown in the warmer house more will be required than is necessary in the cool house.

#### ONCIDIUM MARSHALLIANUM AND O. CURTUM.

Apply water very freely to those developing flowers, and place them in a light position. Do not allow the spikes to remain on the plants too long, especially so when they are carrying fine spikes. After flowering less water will be required, and the necessary repotting should be done when the new growths have made a good start. Suspend them in the cool intermediate house, and at no season should they be allowed to shrivel. The flower-spikes should always be removed if they have failed to produce good growth, which often occurs if they have flowered freely the preceding year.

#### ONCIDIUM LEUCOCHILUM.

Many plants not flowering have their growth sufficiently forward to enable potting or resurfacing being done. This Orchid is better suited when grown on the stage in the cool intermediate house.

W. P. BOUND.

Gatton Park Gardens, Reigate.

## THE KITCHEN GARDEN.

### A LITTLE KNOWN VEGETABLE.

**A** SUBSCRIBER recently wrote to request some hints on the cultivation of Fennel, adding that he found this an excellent vegetable. Fennel is, indeed, a good vegetable—not the common Fennel (*Feniculum vulgare*), but Sweet Fennel (*F. dulce*)—and its culinary uses deserve to be better known. The base of the petioles swells above the collar, forming a succulent mass, which may attain the size of one's fist. It can be eaten raw or cooked, like Celery, which it surpasses in delicacy of flavour and sweetness. The plant will scarcely stand the winter in the climate of Paris, where it may be regarded as an annual. It is sown in spring and gathered during the summer. Sowing is done in rows from 40 centimètres to 50 centimètres apart, the young plants are thinned out so as to leave a space of from 12 centimètres to 15 centimètres between each, and frequent and abundant waterings are given. When the collar of the plant has reached the size of an egg it is earthed up; ten days after the gathering may be commenced, beginning with the most advanced plants.—*La Revue Horticole*.

### ABOUT POTATOES.

WHEN the Tulip mania in Holland was at its height single bulbs of some varieties were sold at prices which, to growers of the present day, seem ridiculous. The Tulip was never worth so much money, and we may take it for granted that in years to come Potato growers will wonder how any variety, however good, could have been deemed worth more than its weight in gold. The worst feature of this boom in new varieties is that, through feverish anxiety to increase their stock, some traders and private growers have resorted to a method of increase which, I fear, in the long run must exercise a weakening influence on the constitution of these expensive sorts. Up to the present time I believe there is no record of Potatoes being systematically propagated from cuttings.

In their anxiety to meet the demand, and reap quick and large returns for money invested, some

trade growers have resorted to the expedient of putting the tubers early in the season in warmth, and taking off the shoots as they form, which of course make roots readily. In this way one grower stated that from 1lb. of Northern Star, for which he paid 10s., he obtained nearly 250lb., which he sold at 3s. 6d. per lb. As he remarked, nothing could pay better; but how about the influence which this forcing method of increase must have on future generations of the Potato? I should be sorry to know that I was buying seed which in any way owed its origin to stock thus obtained. At the present time plants of Eldorado are being offered at £4 each. Just fancy Potatoes being sent out in a way that demands as much care in packing as an Orchid! There is, perhaps, in an age when competition is so great, some excuse for trade growers acting in this way, and when a man invests £50 in a few Potatoes he naturally wants to see some of his money back as soon as possible. For an amateur to practice this unnatural system of increase is as foolish as it is reprehensible. I recently saw in a contemporary a reply to a correspondent who wished to know how to make the most of an expensive Potato about the size of a thimble. He was told to put it into warmth, take off the shoots as they appeared, and root them in small pots. It is well known that the constitution of the Verbena and Calceolaria was so weakened many years ago by the express system of increase adopted to work up a stock of new sorts, that in the end they were so liable to disease that they could no longer be relied on to stand the vicissitudes of our English summers. What can we expect of these new Potatoes in a few years, when in the earliest stages of their existence they are being increased in such an unnatural manner? Using a Potato the size of a thimble is bad enough, but when the growths are rooted in warmth nothing less than permanent deterioration can be expected. It is to be feared that the temptation to increase these expensive varieties in such a quick and easy manner will in the future be more than trade and many private growers will be able to withstand.

A few days ago an instance of what is probably occurring in a great many private gardens throughout the country came under my notice. A gentleman's gardener gave 20s. for 1lb. of a new variety last season, from which, under high culture, he obtained over 50lb. This year these were cut up into small bits with one eye, and were being set out in a field. I quite fail to see that it is in the interest of any private grower to increase a new variety by express speed. There is a pretty general consensus of opinion among those who grow Potatoes for profit that much is gained by frequent change of seed. The experience of the last three seasons has so strengthened the faith of many growers in this district that very few breadths will have been planted with home-grown seed. Supposing that one gives 20s. for sixteen ounces of Potatoes, it will take several years to work up a fair stock, and by that time there should be a change of seed. In my opinion it is better to wait until the price comes down low enough to justify purchasing by the hundredweight, getting them from a different soil and as far from home as possible.

Some of these new sorts appear to be such enormous croppers that it will be impossible to keep up the price of seed for any length of time. Take Northern Star, for instance; there can be no doubt that its cropping powers are far in advance of Magnum Bonum, Up-to-Date, and other standard varieties. On Surrey loam and under high culture these sorts have been yielding at the rate of 15 tons per acre. If Northern Star and Eldorado are to justify their existence they must yield, under the same cultural conditions, from 20 tons to 25 tons per acre. In the long run I fear that, however advantageous the advent of these enormous croppers may be to the consumer, they will not prove an unmixed blessing to the grower for profit. When Magnum Bonum, Scotch Champion, and Up-to-Date were at their best, the best samples were sold at 30s. per ton in our big markets—in fact, some large growers were obliged to feed their pigs with a portion of their produce. This

occurred late in the season, when it was found impossible to sell even at £1 per ton.

Everyone knows that a very abundant fruit year brings prices down so low that it does not pay to send anything but very prime samples to market. In the same way the Potato grower must make a certain price in order to pay expenses, and these are so heavy that in a big yielding season the margin is sometimes so small as to reduce the profits to a very low point. Last year was very bad for Potatoes, in some places the crops being a dismal failure, and yet they are being retailed in this district at 3s. 6d. per bushel. A large grower sold 90 tons for £4 10s. per ton on the place. It is evident, therefore, that in some places the yield must have been very heavy, otherwise good samples would have cost nearer 5s. per bushel. As a fact, Potatoes in this district varied remarkably, in marked contrast to the miserable appearance of Potatoes generally. One came across here and there some breadths that left nothing to be desired. In nearly every case where good crops were secured the seed came from a distance. One grower was digging and selling Early Rose at 6s. per bushel when his neighbours had nothing; but his seed came from France. Talking to an acquaintance on this subject, he said, "Lincolnshire is not far enough away. We must go to Scotland or France." Seed can be bought at £4 per ton in France, the cost of carriage to the home counties being about 15s., so that it does not come any dearer than English-grown seed. For Lincolnshire-grown seed of Puritan and Early Rose one has to give 8s. per cwt., and I see that some dealers are offering imported seed of Early Rose at that price. A friend of mine had excellent crops from Scotch seed, while in gardens all round him Potatoes had a most wretched appearance.

*Byfleet, West Surrey.*

J. CORNHILL.

## POT AND PARAPET GARDENING FOR THE POOR OF TOWNS.—III.

"Look but at the gardener's pride,  
How he glories when he sees  
Roses, lilies, side by side,  
Violets in families."

**V**ERY interesting are the next extracts. They are from a letter written by Mr. William Pindard, who for ten years was superintendent of the Home for Working Boys at Pelham House, Bishopsgate, and while there did wonders, making a bare, unsightly zinc roof into a bower, not to say a jungle. He has now retired, and cultivates a small patch at the East End, somewhat further from the snuts and chimney-pots. As a little boy he competed for flower show prizes, under the Rev. W. H. Davies, of Spital-fields, and this no doubt fostered his natural taste for flowers and gardens.

"Re your enquiry," he says, "as to competitions suitable for window-gardening, I can only state a few particulars, viz.: Bills advertising same are distributed in parish or workroom, offering the prize in, say, two classes for window gardening—1st, those that face the street; 2nd, those that face the back of house. In these competitions each one provides their own boxes and plants, and does as he or she likes.

"For pot flowers, it is arranged on a given day or evening to supply plants in pots at 1d. each, and a sealed piece of tape is fixed round plant at base. This to prevent imposition. Plants such as Geranium, Fuchsia, Tobacco plants, Calceolaria (yellow, small), Lobelia, Creeping Jenny, Musk, Marguerite, and Marigold. These were well started in 4½-inch pots, and distributed in the month of April, and the flower show held at the end of July. Seeds would be a failure, so far as I am a judge. I do not think Forget-me-not, Pinks, Wallflower, or Candytuft would do in pots in slumland.

"I have never done well by Nasturtium seeds. In fact, the poor East-Enders want to see how the seeds are getting on every now and then. A little chap I know very well was told that money grew,

and put three half-pennies into the ground in the back yard. Some men at work in a workshop near saw the act, and, shame to say, soon disposed of it. (I was the little chap, and I believe it was my first attempt at gardening.)

"The pots and plants cost us 1½d. each, so that ½d. was lost in each competition. Don't forget the London sparrows; they nip off every tiny shoot, not because they like them, but out of pure mischief. I do not say seeds will not be successful in some neighbourhoods, but to the poor plants are so much more encouraging. I certainly should not try seeds, but if they should be attempted I would suggest that the cheap and easily-made forcing house be used. Two strips of cane and a well-oiled piece of newspaper over it, to cover the pot up and keep the seeds safe till well up. Then remove the paper and tie pieces of rag on canes to flutter in the wind."

Enough has been said to show that there does exist now in the poorer part of London and its environs an earnest desire that they should share the joys of flowers and gardening; also to prove that for this wish to be realised is no idle dream, but a matter that lies within the bounds of practical workability. Talking with a lady, who is, perhaps, as well acquainted with the poor of slumland as it is possible for anyone to be. "You really think it is worth while to make an effort to give these poor people flowers and plants, and help them to understand and grow them?" The reply came promptly, "Oh yes, indeed. It would be doing a great good, you could hardly realise how much."

People have said to me sometimes, "Have not the East End poor got parks? Why cannot poor people be satisfied with them? They see better flowers there than ever they could grow for themselves." Truly, with their flowers and trees and walks parks are a blessing, but they are not everywhere, nor do they satisfy all cravings. Really to enjoy a flower one must have grown it. In no other way can we get all the good out of it that it is capable of giving. Staring at flowers that other people have watered and tended has but little effect upon the mind. It brings forth no intelligence, has called forth no self-denial, no affection, no kindly feelings. Do not we see something of this even at flower shows got up for the pleasure of the rich? The look of boredom on the faces of the uninitiated, the vacant gaze of the mere onlooker, contrasted with the expression of content which overspreads the features of some flower grower who sees his ideal realised, or some favourite for the first time in full perfection. The poor people who enjoy flowers the most, both in parks and public gardens, are always those who have some knowledge of the same things at home. And it is human nature to enjoy what is our own. We might as well expect to feel the same delight and interest in other people's nurseries and children that we find among our own little ones and their surroundings, as think to understand and enjoy the gardens and flowers of others, no matter how perfect they may be, as much as if they were our very own.

"Even in the stifling bosom of the town  
A garden in which nothing thrives has charms  
That soothe the rich possessor."

"Possessor," aye, there is a point of which we ought not to lose sight.

One more word in answer to those who say the poor of cities have no room for gardening. Are there not roofs and parapets as well as yards and walls? I have known Potatoes (excellent) and Beetroots grown on roofs among the chimney-pots. And look at the Japanese, who manage to do landscape gardening, with precipices, waterfalls, gnarled trees and mossy crannies, in a pan 6 inches by 8 inches, or get a stretch of park, with trees and glades, into a tiny pot 2 feet by 1 foot. I confess that sooner than spend my time on these small miracles I would festoon my roof with Scarlet Runners and Canary Creeper, and make a bower of every buttress; but a miniature rock garden in a window-box is quite a feasible thing and very charming. Here is an idea for one, contributed by Miss Jekyll herself.

"Of bulbs a pretty mixture would be Snowdrops and Scilla siberica, with a mossy Saxifrage."

Miss Jekyll also thinks that Double Daisies, red and white, might do fairly well in towns. Bulbs would appear to the writer most excellent things for the poor to grow in smokeland, because they are so hardy under town conditions, doing better than any other flowering plant, but it seems they call for too much faith on the part of their cultivators during the waiting period. Why not, when bulbs are given out, supplement them with some mossy Saxifrage, such as is mentioned by Miss Jekyll, or tufts of the evergreen London Pride (there is more than one sort of London Pride), which would furnish something cheerful to look at till the first green spears of the buried bulb appeared.

The most experienced of the workers in slumland advise that, as far as possible, all schemes should be self-supporting, and a spirit of independence encouraged. Also, that a sentiment of mutual encouragement should be fostered. Flower shows and prize giving are desirable. These, of course, want a little help in money and a great deal of help in supervision.

Means and markets are open to everyone. Among many firms that are, no doubt, equally good, the writer is able to recommend two as being reasonable and to be depended upon. *Mould*, difficult to cart about, and all the more expensive on this account, is supplied by Messrs. Smail and Co., of 23, Lime Street, E. Potting soil, carefully prepared for the purpose, can be purchased of them at 1s. 6d. per bushel; for short distances, say to Bermondsey, delivered free. Should the distances be great, and the van kept away for several hours, there would be a further charge, say of about 5s.

*Pots*.—Flower pots of 4½-inch or 5-inch size would be supplied at 8s. 4d. per 100. The quantity of soil needed for 100 4½-inch pots would be from two to three bushels. Crocks for drainage are also supplied. Growing flowers in pots can also be supplied by nurserymen.

In conclusion, would it be possible to get a list of those people in the City and slumland who would be glad to receive gifts in kind at certain seasons, in certain places, and also a list of those who are able and willing to bestow them? If the one set of people were introduced to the other, excellent results might follow.

F. A. B.

## GARDENING OF THE WEEK.

### FLOWER GARDEN.

#### SUMMER BEDDING.

FOR a period varying with the amount of bedding out to be done, the principal work in the flower garden will be clearing away the plants and bulbs which have completed their display, and preparing the beds for replanting with the summer occupants. When possible it is best to plant "dot plants" in the bed first, but if from any cause they are not ready or are more tender than the other plants for the bed the necessary spaces should be left and the remainder of the bed filled. During very bright weather it is, as a rule, wise to discontinue planting for a few hours in the middle of the day. This applies more to plants grown in boxes than those well established in pots and thoroughly hardened off. In the case of seedling plants and any which have not been long exposed, they will suffer less in the moving if the planting can be delayed for a few days until dull or showery weather sets in. After planting any tender subject a little temporary shading, such as a few branches of Silver Fir, will be advisable.

#### STAKING.

The fewer stakes there are to be seen in the flower garden the better, but where supports are needful they should be given at once, choosing a straight, neat stake, and tying the plant in as inconspicuous a manner as possible. In spite of the many arguments sometimes used against the practice, I prefer, as far as practicable, to do whatever watering is necessary during the latter part of the

afternoon rather than in the morning, discontinuing early enough to allow the foliage to dry before dark.

#### LAWN MOWING.

Where lawns are extensive the mowing will for a few weeks longer entail a deal of labour. Occasionally one hears the complaint that the mower "goes hard," and this is due frequently to insufficient oiling. Some patterns of lawn-mowers require to be oiled more frequently than others, but with most makes it will be found that they will work much easier if well oiled, and, of course, during hot, sunny weather more lubrication is required than when it is dull. On no account should men be permitted to oil the machine while on the grass or a brown spot will soon appear. With an otherwise properly adjusted mower a too short pulling rope entails a waste of power. During the dinner-hour the machine should be placed in a shady spot.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## INDOOR GARDEN.

### POINSETTIA PULCHERRIMA.

OLD plants that a month or so ago were put into a gentle heat to encourage the production of shoots for propagating having responded, these are now ready for being taken off either as cuttings in the ordinary way or with a heel of the old wood attached, and if properly treated they will strike root freely enough either way. The object should be to expose the cuttings for as short a period as possible. They should be inserted in the pots and be placed in the propagating box or frame as quickly as possible, and be kept close and lightly shaded to prevent the leaves from flagging. Sometimes three are inserted around the sides of 3-inch pots, but usually we prefer putting them singly in the centre of small pots, as then they can when rooted be potted into larger pots without suffering a check, and generally for decorative work they are more useful. Immediately the first batch of cuttings have been taken remove the old plants to cooler quarters. A close, cold frame is a very suitable position; the cuttings for subsequent batches will then be firmer and much easier to propagate.

### EUPHORBIA JACQUINIÆFLORA.

Healthy, firm tops of the shoots should be secured and inserted as cuttings—three to five—around the sides of 3-inch and 4-inch pots. When rooted they should be potted and grown on. Cuttings, to the base of which is attached a heel of the old wood, should be taken by the time they are 2 inches in length, as generally they take longer to root, and would be likely to suffer more than those obtained from the tops of well-developed shoots. With ample convenience it is a good plan to plunge the pots containing the old plants in the propagating bed. Then peg down the long stems of these horizontally, previously notching them at every joint. Cover them and at each joint roots will be emitted, after which sever them and pot up singly. They may be placed three to five in pots large enough to receive them, and in this way may be grown into good specimens.

### CYCLAMEN PERSICUM.

These plants have just received their final shift into 5-inch and 6½-inch pots. The loam in this district is not of the best, in consequence of which more peat than loam is used in the compost, the other ingredients being leaf-mould, sand, and a few broken crocks or brick; the pots are well drained. When placing the plants in their flowering pots a mistake frequently made is in putting the corms too low down in the soil; nearly a third should be above the soil. Plunging the pots in bottom-heat is not practised, but the plants are raised near to the glass and a moist atmosphere is maintained by frequent syringings. A temperature not higher than 50° at night, with a rise of 5° in the day, is suitable. The aim should be to produce thick leathery leaves with short leaf-stalks, and this can be done only by careful attention to airing as well as shading, special attention being paid to the latter, which must not be excessive.

J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

## KITCHEN GARDEN.

## LEEKS.

THOSE sown early in the year and grown on in heat should now be ready for planting out. If the very best results are desired this crop requires a great deal of care and attention. The Leeks must be planted in trenches prepared as for Celery, and carefully turned out of their pots and placed 15 inches apart. Shade for a few days if there is strong sunshine. Leeks for kitchen use may be grown on any good garden soil by simply planting deeply with a dibber. After making the hole put in the young plants deeply, leaving only 2 inches or 3 inches above the soil. Let a little soil into the holes; they will be gradually filled up when hoed or watered. The rows should be 18 inches and the plants 9 inches apart.

## CELERY

sown for very early use will now be fit to plant out. If the plants are in boxes carry these to the trenches. If they are taken out carefully little check will be given. Choose a dull day for planting, and in dry weather give frequent waterings till the plants begin to grow. For the main crops the seedlings should now be ready to prick out. This will have been done already in many gardens, but as the plants are liable to run to seed if sown too early, they are still in good time. To get good, strong plants with plenty of soil adhering to the roots the frame should be emptied to the depth of 1½ feet. Place some old, short, well-rotted manure in the bottom, with about 2½ inches of soil on top, and prick the seedling plants in about 3 inches apart each way. If they are carefully attended to the plants will be ready in about a month for planting out.

## PARSLEY.

The main sowing should now be made. This should be done on a fairly dry piece of ground. The thinnings may be used for pricking into frames to ensure a supply during the winter months. Plants raised in heat and planted out early in April are now growing freely. Give occasionally during the summer a sprinkling of manure, and hoe frequently among the plants. Parsley is an important item in all gardens, and should receive careful attention. A well-grown row or bed is also very attractive.

## GENERAL REMARKS.

Take advantage of every fine day to ply the hoe. In all places where weeds are showing stirring the surface encourages growth and kills the weeds. Draw soil to Potatoes and Cabbages in time, thus preventing damage by wind. Clear the land of all last season's crops still remaining. Broccoli will soon be over, and the ground should be deeply dug for Peas, Turnips, or Potatoes. Remove the flower-stems from Rhubarb. If seed is required a few may be left. Plant out on the herb border Basil, Marjoram, &c., raised from seed under glass. THOMAS HAY.

*Hopetoun Gardens, South Queensferry, N.B.*

## FRUIT GARDEN.

## MELONS.

THE earliest house of Melons having been cleared of fruit, young plants sown as advised last month will now be ready for replanting. I do not advise a second crop being taken from the same plants. A part of the old soil should be removed from the bed and fresh loam added and made up as given in previous calendars. The house must be thoroughly cleaned or red spider is sure to make its appearance later in the season. If the fruits are required for any particular date about three months should be allowed from the time of sowing, and a little longer for frame Melons. Shade the plants in the middle of the day until well established. In houses where the fruits are colouring reduce the supply of water at the roots, but not sufficient to

cause the foliage to flag. Pay attention to pinching and tying in shoots on succession plants and the fertilisation of the blooms, and try to get as even a set as possible. I have found nothing better as a stimulant than diluted liquid manure. Keep the plants free from red spider by maintaining plenty of atmospheric moisture, closing early in the afternoon, and allow the temperature to rise freely. Sow seeds at intervals of about three weeks to keep up a succession. Any ordinary pit or frame will grow good Melons at this season. Plants grown in frames do not require as much water at the roots as those grown in houses. Thin out weak growths to avoid overcrowding, and place the fruits on inverted pots as soon as large enough. Ventilate carefully and shade lightly in the middle of the day, syringe and close early in the afternoon, covering up the frame with mats on cold nights.

## GENERAL REMARKS.

We have had very little rain in this district lately, and heavy ground is beginning to crack badly. The surface soil must be kept well stirred, and on fruit tree borders at the foot of walls should be stirred 2 inches deep with a fork to allow the water to reach the roots. Continue to disbud

## PLANTING OUT DAHLIAS.

WHEN the ground has been thoroughly prepared and the plants hardened off planting can begin, choosing either the last week of May or the first of June. To do this well much labour is needful. Decide where the first row is to be, put a stick where the top and bottom plants are to be planted, and then stretch a line about 9 inches to one side, i.e., 9 inches away from the stick where the plants will eventually stand. Then beginning at the first stick set out the row to take plants, say 4 feet apart, putting in a twig to show position of each. At each of these sticks dig out a hole reaching from the line on the one side to an equal distance on the other, allowing for the stick to be the centre, and so all round. This hole should be rather over a foot deep, if the soil will allow, but it is not much good hurrowing down into clay if that be the subsoil. Having made the hole put in about two gallons of manure, and then well work a portion of the surrounding soil with it, finally filling up and levelling off the surface as if no hole had been made. Now replace the little stick in the centre so that the exact position of the hole is kept, and so on until the row is ready. The line



THE MOONLIGHT BROOM (CYTISUS SCOPARIUS VAR. PALLIDUS).

Peach and Nectarine trees. Syringe the trees with Quassia Extract according to directions, and wash the trees on bright afternoons with the garden engine. This will help to keep down fly and spider and encourage healthy growth. Morello Cherries must be kept clear of black fly either by syringing or dipping the points of the shoots in Quassia water.

*Impney Gardens, Droitwich.*

F. JORDAN.

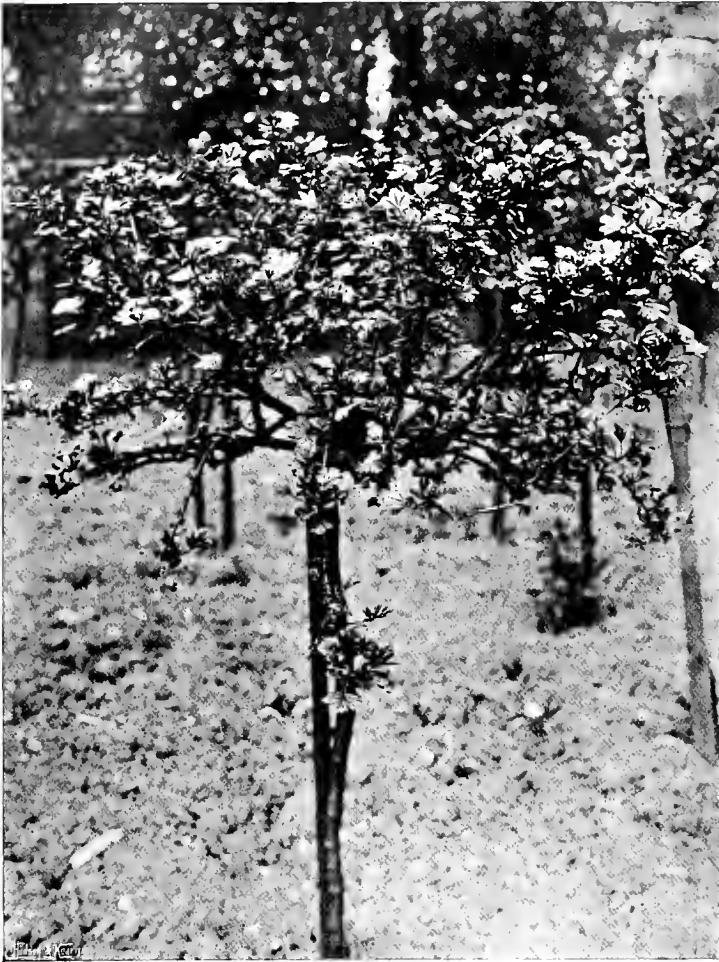
## THE MOONLIGHT BROOM.

THIS Broom is one of the most beautiful dwarf shrubs in flower in early summer in the Royal Gardens, Kew. It is a very old variety, as it was described by London sixty years ago, but it is still rare, and not easily obtainable. Its pale yellow flowers are in beautiful harmony with the rich yellow of the type scoparius. Mr. Goldring wrote about it last year in THE GARDEN, and mentioned that the only private garden in which he had seen it in an established mass was in that of Mrs. Robb at Liphook. I do not know if it comes true from seed, but I fancy not.

W.

on the one side is simply a guide to keep the holes straight. When a row is finished, the plants can be put in at once, placing the ball of earth just comfortably below the surface. I might here say that if the ground is at all dry when the holes are got out it is advisable when filled in to tread each more or less firmly, but not, of course, too hard. When selecting the sorts for planting consider the different heights of the varieties, otherwise it will be found later on that the 5-foot giant is next to the 2½-foot dwarf. I would also strongly advise that when planting the piece begun each day should also be finished, not only planted, but each plant properly staked at the back, leaning well back, as others will be required soon to form a triangle. Tie the plants securely. Do not be led by the somewhat unsightly look of the big stakes to put off this part of the work till the plants get bigger, but stake at once.

From the time the plant is safely installed in its summer quarters till the end of almost a month no great amount of work is needed, but this is in itself a source of danger, the whole lot being left for a time unattended. The slugs are, however, busy



A STANDARD GOOSEBERRY.

and if dry weather sets in thrips may get a firm hold in the hearts as well. The slugs frequently eat off the rind of the plants just above the ground. When this occurs the plant is practically useless, although it will probably shoot up from the base it will be so late that flowers will not be in time for the shows.

The best way to exterminate slugs is to go out at night with a knife and a lantern, but an excellent plan also is to sprinkle lime round the stem, and, if badly infested, over the foliage as well. Through June, apart from a light hosing, hardly anything need be done during the day, but a slight sprinkle from a syringe or water-can with the rose on in the evening of hot days does much to keep the plants healthy. If any of the varieties run up and produce a bud cut off the top, say, three joints down, and on no account whatever leave the bud to flower; it is astonishing what an amount of nourishment a bloom like this takes out of a small plant. Very often the whole strength of the plant goes to producing the flower to the neglect of the side shoots.

(To be continued.)

### STANDARD GOOSEBERRIES.

GROWING the Gooseberry in standard form is not extensively seen in this country, yet it has its advantages. There are instances where they have been grown with excellent results. Under proper cultivation standard trees will bear large quantities of fine fruits of good flavour, and, apart from this, the trees are exceedingly ornamental. I would not, however, recommend planting large numbers of standard trees for producing the chief supply of fruit for culinary use; the cordon or bush system is the most profitable for this purpose. The advantages of

the standard form of training for the production of dessert fruits are several. Firstly, the trees are beautiful as well as useful; secondly, they occupy but little room, which in many gardens is a consideration; thirdly, the fruits, being borne well above the surface of the ground, do not become splashed during rainy weather; and, lastly, they derive full advantage from sun and air, thus ensuring highly-flavoured fruits in abundance.

In the selection of varieties choice should be made of those that are known to be of more or less pendent habit. By purchasing the trees from nurserymen who make fruit tree culture a speciality, the best sorts for this form of training are supplied, and it would be well for the uninitiated to leave the selection to the nurseryman. The stems should be clean and straight, and about 3 feet high. Overcrowding the branches must be avoided, and any shoots that have a tendency to grow upright may be tied down during the summer, when they are

supple, in order to maintain well-shaped heads. At the winter pruning the strongest shoots may be left full length, provided all the wood is well ripened. Weakly growths should be shortened back to a few eyes on well-ripened wood. Place a neat iron stake against the stem, and tie the tree securely to it. To prolong the season of ripe fruit for dessert some trees may be planted in cool and partially shaded parts of the garden, where the sun only reaches them for a few hours daily. As far as my experience goes the flavour of the fruit is not impaired by this procedure provided the culture is good. It is sometimes advisable to thin the berries, and this should be done while they are green.

H. T. MARTIN.

Stoneleigh Abbey Gardens, Kenilworth.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

#### OLD AND NEW VARIETIES OF POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with great interest the various notes on this subject which have appeared in recent numbers of THE GARDEN, and also notice that a Potato society has been formed, which I think will be the means of bringing good results. There is no doubt, if the present high prices of some new varieties are realised, that in the future a still larger number of new ones will appear. In the numerous notes on the subject of

the depreciation and decline of the old varieties very little difference of opinion has been expressed, all attributing the cause to the Potato, instead of enquiring whether the growers themselves are at fault. Some time since, Mr. A. Dean mentioned in one of the gardening papers that Mr. Fenn had still some of the first seedling varieties, which were still as good as when raised, the result of careful selection of tubers (as well as of intelligent cultivation). This, I think, is one of the methods by which our stocks of Potatoes may be at all events kept in better, if not perfect, condition. It is very strange that such a valuable source of food supply should be so neglected in this respect, when most other vegetables, as well as the cereals, are rigidly selected. I gather from my observations, extending over many years, that the principal cause of degeneracy is through the crop being graded for market, leaving a great proportion of the tubers which from various causes do not grow sufficiently large to be used as seed. This, of course, for one generation would not materially influence the standard, but it happens that a few of these again produce none or very few good tubers, which swell the bulk of small ones to be again used as sets. Thus an inferior standard is set up by probably 20 per cent. or 30 per cent. in two generations, to be further weakened by successive seed selections. If, however, on the contrary, intelligent selection of seed sets were maintained by choosing proper tubers, the quality of the whole stock would in a few years be raised both in respect to size of tuber, quality, and quantity of production.

B. LADHAMS.

#### SEEDLING DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with great interest Mr. Gaunt's remarks on seedling Daffodils, and have much sympathy with him in the difficulties he mentions, viz., the small increase obtained from some of the best seedlings. May I suggest that not a flower should be wasted if it is wished to increase a good variety? Fertilise each bloom carefully with its own pollen, and sow the seed resulting. This way of increasing a variety takes time and patience, I know, but Mr. Gaunt, as a raiser of Daffodil seedlings for the past twenty years, will know well that time and patience are the two principal essentials in this pastime.

HORTENSIS.

#### THE NATIONAL TULIP SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The National Tulip Society is not in a position to undertake all that you suggest should be among its aims. Even were it necessary to do so, which is doubtful, it has not the means at its command. It enjoys only a limited income, and that is supplied by a few enthusiasts who are content to devote themselves to the cultivation of one section of Tulips, and one only. In this respect the members of the society do wisely. They possess a goodly heritage, for the lines upon which they work were laid down generations ago. The gradual development of the types of Tulips they cultivate has been the work of years, and the Tulip Society adheres to these lines, achieving more or less success according to the character of the season. The members are content with the bizarres, byblomens, roses, and selfs, or "breeders," as the first stage of seedling Tulips is technically termed. The florist's Tulip has a physiology almost or quite unknown in connexion with any other flower; and it is the singular transformations to which the flower is subject that possess for cultivators such an absorbing fascination.

Cultivators are not insensible to the attractions of the various species of the May-flowering and Darwin Tulips. They see in them much that is of great value for garden decoration, but they appraise them much below their refined rectified forms and striking breeders. They think the species of May-flowering and Darwin Tulips are well looked after by the Royal Horticultural Society. They appear at their bi-monthly meetings in great quantity and variety when in season. There is a Narcissus committee especially appointed to deal with them,

and awards are frequently made to attractive forms. No one can say they are neglected; the Tulip will be as largely represented at the Temple show as any other flower. A certain amount of sportiveness appears among the early-flowering single varieties; but there is no other section of Tulips that presents to view the singular changes which are the nature of the florist's type. The time may come when the florist's show Tulips will go the way of the once-popular *Ranunculus*. Till then, I hope, as one who has been acquainted with the section for nearly seventy years, that there will be found some attracted by the bizarres, byblemens, and breeders, and grow them as things too beautiful to be neglected. R. DEAN.

### HINTS ABOUT CUT FLOWERS.

It is a common experience that some flowers will not continue fresh in water even for a day. Not only do they fade, but the whole thing withers as if the stalk failed to reach the water. By a knowledge of a few simple facts much disappointment and vexation may be avoided. In the first place all flowers should be put in water as soon as possible after they are cut. If left out of water for some time the cut ends become dry and shrivelled, with the result that some of them have a much lessened power of absorption of water. In such cases a half-inch or so should be cut off the ends of the stalks immediately before they are put in water. This is a good plan to adopt with flowers which have been travelling, in addition to which, in such cases, they should be immersed in water up to their heads for an hour or so, and if the water is tepid so much the better. Some flowers, like Poppies, *Stephanotis*, *Convolvulus*, and some *Campanulas*, need a little extra care, as the juice sometimes solidifies at the end of the stalk, and so impedes the absorption of water into the tissues. For these and similar flowers split the cut ends a little way immediately before putting them in water, when the milky juice exuded is washed away. *Lenten Roses*, *Gaillardias*, and some perennial *Sunflowers* and *Phloxes* are often very unsatisfactory as cut flowers, especially the two last named, as anyone looking at the cut flower section of a summer flower show must have noticed. If the stalks are split a good way up immediately before being put in water and the whole of the split portion immersed the tendency of these flowers to wither will be reduced, and sometimes they will last as long as anything else.

It is the flowers with woody stems that often present the greatest difficulty—*Lilac*, *Guelder Roses*, *Syringa*, *French Currant* (*Ribes sanguineum*), *May*, *Wild Roses*, &c. In addition to cutting the ends off the stems or stalks just before putting them in water, some recommend in such cases peeling the bark 2 inches from the end; others slitting the stems a little way up; others loosening the bark without removing it; and others cutting off the ends with a long slanting cut. All these devices are more or less effectual, some answering better with one thing, and some with another. This has to be learned by experience. Some aquatic plants, too, are very difficult to keep alive when cut. Our *English Horse-tails* and some of the tall *Water Reeds* will only keep well in water if several inches of the stem are immersed, and little notches made along the immersed portion—one notch in the upper part of each inter-nodal portion—so as to let the whole stem be filled with water.

Though it is a bad practice to recommend, there are some wild flowers which almost refuse to live in water unless a portion of the root is pulled up with them. This is notably the case with the *Poppies*, which, if gathered in this way, the whole stem with a piece of the root attached will last well for days, many unopened blooms unfolding. As there is no fear of exterminating our gaudy friend, this may safely be quoted as an instance, but certain others none too plentiful I refrain from mentioning.

Changing the water every day helps to preserve the flowers in beauty, and is advisable in the interests of the health of the household. The water very soon teems with infusoria, and these rapidly set up decay in the cut ends of the stems. It is often

possible to change the water without disarranging the flowers, while certain floral aid contrivances for wide open bowls permit of the flowers being taken out *en bloc* and the bowl emptied and refilled. With very choice and scarce flowers it is worth while again cutting off the ends of the stalks at the same time. Various things are sold to put in the water to make cut flowers last longer, possibly by arresting putrefaction. A teaspoonful of *Condy's Fluid* to a pint of water is probably as good as any of these. ALGER PETTS.

## NURSERY GARDENS.

MESSRS. HUGH LOW AND CO.,  
ENFIELD.

IN the Bush Hill Park Nursery, Enfield, of Messrs. Hugh Low and Co. plants are not grown in dozens but in thousands. It would be more appropriate to say they are produced than to say they are grown, yet, paradoxical as it may seem, they are well grown nevertheless. House after house is filled with *Palms* of all sizes and almost all sorts. You are shown 30,000 *Heaths*, 20,000 pot *Roses*, 10,000 to 15,000 *Genistas*, thousands upon thousands of *Orchids*, and so on. You pass through house after house filled with plants until you are lost sometimes in a miniature forest of *Palms*, again among a bewildering quantity of *Cattleyas*, which fill the side stages, the central stage, and a good deal of the space overhead. At this time of year you see a house full of *Odontoglossum crispum* in bloom, perhaps the loveliest sight for an *Orchid* enthusiast, or the *Dendrobiums* provide a feast of colour that even few exotics can excel. Among the homelier plants the *Carnations* prove a great attraction for both *Malmaison* and tree varieties are in bloom; the gorgeous blaze of yellow *Genistas* (small plants in small pots, but a mass of flower) rivets your attention for the moment, until a group of that lovely *Schizanthus*, *S. wisetonensis* in many and varying shades of colour, is pointed out to you. But to descend from generalities to particulars. Several large houses are filled with *Carnations*, whose healthy appearance might afford an object-lesson to those who fail to grow *Carnations* near London. Among the *Malmaisons* perhaps the best were *Princess of Wales* (pink) and *Churchwarden* (crimson-scarlet), although other very fine ones were *Horace Hutchinson* (brilliant scarlet), *Nell Gwynne* (white), *Sir Charles Freemantle* (deep rosy pink), and *Lord Rosebery* (salmon scarlet). We were shown what probably very few people know to exist, and of whose existence we were previously ignorant, namely,

#### A YELLOW MALMAISON CARNATION,

which, when it is distributed—and this we believe will not be for some time—will undoubtedly be much sought after. A yellow *Malmaison* has long been talked about, and at last it is a reality. Doubtless there will be a few plants of this new variety at the Temple Show, and should this be the case it will prove quite an attraction in itself. Among the *Tree Carnations* were such good things as *Mrs. Thomas W. Lawson*, rich pink; *Albatross*, white, strong clove scent; *Cecilia*, yellow; *Eochantress*, light pink; *Ethel Croker*, pink; *H. J. Cuthush*, scarlet; *Winter Cheer*, crimson-scarlet; *Floriana*, rosy pink; *Fair Maid*, pink; *Norway*, white; *Primrose Day*, deep yellow, and others.

#### SCHIZANTHUS WISETONENSIS

we have already referred to. It is a plant of great value for the greenhouse, and some lovely shades of colour are now contained in a good strain.

We were chiefly attracted by the *Orchids* during our recent visit, for many of them were in flower. A low span-roofed house partially filled with *Dendrobium devonianum* was a lovely sight—such a picture as only this *Dendrobium* could make it—the creamy white sepals and petals tinged with pink, and the white-fringed, orange-blotched lip go to make a charming and dainty flower, and when you see hundreds of plants, many of

whose pseudo-bulbs are literally rods of bloom, the display cannot be otherwise than very beautiful.

*Lælia harpophylla*, with its rich orange-red flowers, made warm bits of colour, and for this reason refused to remain unnoticed as we passed from house to house.

#### CATTELEYA CITRINA,

the waxy yellow blooms hanging quaintly from baskets or pans suspended from the roof, was perhaps less likely to attract attention, but solely by reason of its position, for none could deny its beauty. *Cattleya lawrenceana* and *C. Harrisoni* were also in bloom.

To digress for one moment from *Cattleyas* to *Dendrobiums*, we omitted to say that all or nearly all of these are growing in pots suspended about 15 inches from the gravel-covered stage instead of being placed on inverted pots, as they usually are. They evidently appreciate their position and treatment, for they had made splendid growth. Messrs. Low use leaf-mould mixed with peat in the compost made up for potting *Orchids*. Many of the stages are covered with small shells; these are found to conserve the moisture even better than gravel. *Phalenopsis*, *Vandas*, *Cypripediums*, *Oncidium*, &c., fill many houses. *Cypripedium niveum*, *C. tonsam*, *C. godseffium*, and others, together with *Oncidium papilio*, were finely in flower. We saw quantities of

#### NEWLY-IMPORTED ORCHIDS,

and those who did not know would find it very difficult to believe that the dry, sticklike looking objects that had recently been unpacked were capable of producing the loveliest of flowers. The collections of *New Holland* plants and stove and greenhouse plants cultivated in these nurseries are most extensive, and it may safely be said that any plant that comes under the above designation and is worth culture will be found in the Bush Hill collection.

#### MEDIOLA ASPARAGOIDES.

This charming trailing plant cannot be too highly valued for all decorative purposes in floral work, being much finer in the leaflets than the well-known older sort, besides having much longer trails. It is sure to be very greatly in demand, and justly so, judging the advantages it has over ordinary *Smilax*. Messrs. Hugh Low and Co. hold the entire stock in this country, and are to be congratulated in again distributing a plant of such meritorious qualities. They hope to show it for the first time at the Temple show. In conclusion, let us remind intending visitors to Messrs. Low's nurseries that the proper way is to go to Bush Hill Park Station on the Great Eastern Railway, and not to Enfield on the Great Northern Railway. The latter station is a long way from the nurseries, while the former is quite close.

## SOCIETIES.

#### THE TURIN INTERNATIONAL EXHIBITION.

UNDER the influence of the genial sun and thoroughly Italian atmosphere the exhibition which the Horticultural Society of Piedmont had organised to celebrate its jubilee was opened on the 10th inst. by the Duchess of Aosta, accompanied by the Duke of Genoa, both taking great interest in all matters connected with agriculture and horticulture.

The Park Valentino, in which, in conjunction with a fine arts exhibition, it is held, is particularly well situated for such a display, the high hills, which form a natural background, greatly adding to the beauty of the show. It is pleasant to record that this great undertaking has been a thorough success, and the just reward of the untiring efforts of the executive committee, who did all in their power to secure adhesions to their pet scheme from all countries. Unfortunately, so far as English horticulture is concerned, the exertions of the representatives who visited England for that purpose have proved fruitless.

The international character of the undertaking, however, was well sustained, thanks to the exhibits from France, Belgium, and Holland, which, with those from Italy, made it altogether a very interesting and exceedingly instructive exhibition, the international character of which was further illustrated by the composition of the jury, which comprised many notabilities, such as Mr. Fischer de Waldheim, from St. Petersburg; Max Kolb, from Munich; Correvon, O. Ballif and Dufour, J. De Cock and Souper, from Switzerland; Belgium, and Luxembourg; Andre Truffaut, Chabney, Leon Duval, Louis Leroy, Dr. Chifflet, Rivoire, Jacquier, Moser, Mari, Riffaud, Niebart, and Vilmorin, from France; Sir

Thomas Hanbury, and Messrs. J. Bevan, C. Harman Payne, and G. Schneider, from England.

As may naturally have been expected, the greatest number of exhibitors were from Italy, and some of their products were remarkably interesting.

The sympathetic director of the Royal Gardens at Stupinigi, Signor Cavaliere A. Scalarandis, had reproduced from the plans found in the castle an Italian garden of the eighteenth century in all its purity of style, but planted with Ageratum, Phlox canadensis, tricolor and gold and bronze Geraniums, Gnaphaliums, and other plants unknown at the time the garden was originally designed. The Pomological and Horticultural School of Florence was awarded a prize of honour for a most interesting exhibit comprising superb Anthurium hybrids of the Andreanum x Ferriense section with very large flowers, some of which measure 10 inches by 8 inches; also splendid Marantas, Caladiums, and other members of the Aroids, plants seldom seen nowadays. Mr. Jules Van den Daele, director of the gardens at Monte Carlo, also received a prize of honour for a splendid presentation containing a collection of extra-sized Crotons, one of exotic Ferns, an unique collection of Pandanus comprising several species which one never sees now, splendid specimens of Anthurium crystallinum, Jacobinia, Vanilla aromatica, bearing over 100 pods, and many other interesting plants.

Prizes of honour were also presented to Mr. J. Moser and M. de Vilmorin for their very interesting exhibits in Rhododendrons, Azaleas, hardy Ferns, &c.; Messrs. J. De Cock (the Van Houtte Père Society), Rivoire, Molin, and others, who had largely contributed to the success of the exhibition; also to Mr. Leon Duval, to whom prizes were awarded for Bromeliads and for Anthurium scherzerianum of his own raising. All the presentations were made with much taste, and highly conducive to the success of the undertaking, the results of which, it is to be hoped, will be beneficial to the society. A cordial welcome was given to all comers.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE, MAY 3.

PRESENT: Dr. M. T. Masters, F.R.S. (chairman), Messrs. Odell, Sutton, Worsdell, Saunders, Masee, Holmes, Douglas, and Chittenden, Drs. Cooke and Rendle, Revs. W. Wilks and G. Henslow (hon. sec.).

*Rockets attacked by insects.*—Mr. Saunders reported upon plants sent to the last meeting by Mr. Holmes: "The Rockets are attacked by the caterpillar of a small moth, one of the Tineina, probably *Plutella porrectella*, which Stainton says is a quiet garden insect, always to be found amongst *Hesperis matronalis*. The moth measures rather more than half-an-inch across the wings when they are fully expanded; the wings are whitish, streaked with brownish yellow."

*Arabis albida, prolificans.*—Mr. Chittenden showed sprays illustrating this form of "doubling," in which the calyx and corolla only are repeated on an elongated axis. It was mentioned that such occurred also in *Ranunculus amplexicaulis*, *Helianthemum* sp., the "Harper-Crewe" yellow Wallflower, Mr. Balchin's *Mignone*, &c.

*Capsicum without pungency.*—Mr. Holmes exhibited a depressed globular form of fruit from Spain, the usual form being oblong; though possessing the scent of Cayenne pepper, it has none of the pungency.

*Bulbophyllum saurocephalum.*—Mr. Odell showed a spike of this remarkable Orchid, as the stem is very thick, fleshy, and purple, carrying small sessile flowers.

*Osmanthus ilicifolius, dimorphic.*—Dr. Masters showed a branch bearing both entire and spinescent leaves, proving that they were not different species, as some had supposed. The Holly not infrequently is similarly dimorphic.

ANSWERS TO CORRESPONDENTS.

**Names of plants.**—L. M.—1, *Nephrolepis davallifolia* fureans; 2, *Davallia canariensis* (barren frond); 3, *Davallia canariensis* (fertile frond); 4, *Nephrolepis cordifolia*; 5, *Davallia filijensis* robusta; 6, *Polypodium (Pleopeltis) pustulata*. No. 2 may be a seedling variety a little different to the type.—*Charles B. Fletcher*.—The tree is *Crataegus coccinea* (Scarlet-fruited Thorn); the Broom is *Cytisus sessilifolius*.—*H. A. Watts*.—*Brassica oleracea*, *Cochlearia officinalis*, and *Salix repens*.—*Charles Proutis*.—*Fritillaria pyrenaica*. The Primrose has an abnormal development of sepals; this is not at all unusual.—*J. M.*—1, *Cunningham's White*; 2, faded; 3, *R. coriaceum*; 4, *R. russellianum* superbum; 5, *R. Manglesii*; 6, flowers withered, but appears to be *R. coriaceum*.—*M. T. H.*—The white is *R. caucasicum atramentum*; the pink and dark pink are poor seedlings of *R. ponticum*.—*Lady Hopkins*.—*Polemonium hybridum* (*P. coerulesum* x *repens*); the Primula is *P. pubescens* var. *alba* (*nivalis*).

**Pelargonium** (E. M. L.).—There does not appear to be a good book devoted to the culture of the *Pelargonium*. Many useful articles have appeared in the various horticultural papers at different times, and it is somewhat remarkable that no useful book has been published, especially considering that a special society was for a long time devoted to the advancement of this useful and beautiful class of plants. Some good articles on the culture of *Pelargoniums* have appeared in earlier numbers of THE GARDEN, and we hope to give further notes on their culture at an early date.

**Plants for riverside** (FRED TOWNSEND).—*Trollius europaeus*, *P. asiaticus*, *Senecio macrophyllus*, *S. japonicus*, *Aster paniculatus*, and many others, *Rudbeckia laciniata*, *Althea officinalis*, *Astilbe rivularis*, *Bocconia cordata*, *Solidago canadensis*, *S. lanceolata*, *Helianthus giganteus*, *Helenium autumnale*, *Lactuca Bourgei*, *Polygonum polystachyum*, and *P. Weyrichii*. All these are strong-growing plants that would be suitable for riverside mud deposits.

**Insects on Carnations** (Mrs. T.).—The insects are specimens of one of the small kinds of ground beetles; they belong to the genus *Notophilus*, which are perfectly harmless to all plants. All the ground beetles feed on animal matter, such as smaller insects, slugs, &c., though some are very fond of ripe Strawberries. We do not think the little beetles will injure the plants in any way.

**Water Lilies in tubs** (E. E. ST. PAUL).—The usual paraffin cask will make two good Water Lily tubs. Saw it in halves, then well burn the oil out of the wood. Place it in a sunny sheltered position; it is best sunk in the ground. Put in 6 inches of any good garden soil; the stiffer the soil is the better. Plant the Lily, and fill up the tub with water that has previously stood in the sun and air to soften. Add about one gallon of fresh water to the tub every other

OBITUARY.

MR. THOMAS SMITH.

WE regret to announce the death of Mr. Thomas Smith, sen., the head of the firm of Messrs. Thomas Smith and Sons, Rose growers and nursery and seedsmen, Stranraer, N.B., which took place at Black Park, Stranraer, on the 18th inst., in his eighty-fourth year. Mr. Thomas Smith was born on August 31, 1820. At the early age of thirteen he entered the employment of Messrs. Stewart, nursery and seedsmen, Perth. Thence he went to Whittlebery Lodge, where he was for some time. He was thereafter appointed one of the foremen at Dalkeith Palace Gardens, then under the charge of Mr. McIntosh.

After two years in these famous gardens Mr. Smith went as foreman to Eglinton Castle Gardens, where he remained for two years. He left Eglinton Castle to fill the important position of head gardener to Mr. Garnett of Quernmore Park, Lancaster, in which post he remained until 1857, when he was appointed head gardener to the Marquis of Londonderry at Mount Stewart, County

Down. Here he carried out a great many improvements in the grounds and gardens. In 1861 Mr. Smith commenced business in Stranraer, N.B., where he founded the well-known firm of Thomas Smith and Sons. Under his management, associated with that of his sons, the firm soon acquired a wide reputation and an extensive business, Roses and Rhododendrons being their leading specialties, and many awards have been carried off by the firm at the principal shows in the three kingdoms. Until recently Mr. Smith took an active part in the management of the business.

Mr. Smith was frequently called upon to act as a judge at flower shows, and he frequently acted in this capacity at the shows of the Royal Caledonian Horticultural Society and the National Rose Society. In person Mr. Smith was a man of strikingly picturesque appearance, his stalwart figure bearing little or no in-

dication that he had spent about seventy years as an active member of the ranks of horticulture. He was a man of strict integrity in all his doings, and a general favourite with all who knew him. The business is, we learn, to be carried on as usual by his two sons, who have been associated with him in it for many years. His funeral took place on the 20th inst., and was very largely attended.

Mrs. Hartland.—We also regret to learn of the death of Mrs. Hartland, wife of Mr. W. B. Hartland of Ard Cairn, Cork, who passed away last week after a long illness of some years duration, borne with fortitude and resignation.

PUBLICATIONS RECEIVED.

Messrs. George Newnes, Limited, Southampton Street, Strand, send the monthly issues of their various publications. The *Wide World Magazine* maintains its high tone and interest. *Fry's Magazine* is of especial interest this month to motorists and cyclists, the *Captain* is filled with healthy tales for boys and youths, and the "Survey Gazetteer of the British Isles" has reached Part 9, leaving eleven to be issued before the work is completed. This is one of the most useful books ever published by Messrs. Newnes.

Dictionnaire Iconographique des Orchidées; The Country Gentleman's Reference Catalogue; Botanical Survey of a Pasture, by R. C. Gaut; Schedule of the Nottinghamshire Horticultural and Botanical Society; Catalogue of Summer Bedding and Border Plants, Dahlias, &c., Dicksons', Chester.

\* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.



MR. WHITE'S GARDEN SEAT DESIGN.

morning through a rose water can just to make the tub overflow a little. The water that is added should have been in the sun or in the open air some time previously. If these precautions are taken, Water Lilies will thrive even with deep well water. Most of the other water plants may be grown in the same way. Earthenware pans are even better than tubs for water plants. Do not be tempted to use artificial manures of any kind; no other compost is equal to good kitchen garden soil.

TRADE NOTE.

GARDEN SEATS, HOUSES, PAVILIONS, AND VASES.

MR. JOHN P. WHITE, the Pyghtle Works, Bedford, sends his excellent book of garden furniture and garden ornaments in wood, iron, lead, and stone. It is freely illustrated with this maker's designs, and one of these we have chosen to show that the object of Mr. White has been a simple beauty without elaborate ornamentation or rustic work distortions. Mr. White's houses in particular have a certain dignity that the majority of such constructions entirely lack, and we feel it is safe to recommend this book of designs, knowing how greatly the charm of a garden may be marred by unsightly erections which force themselves upon one's notice by their conspicuous ugliness. On the threshold of summer, when we seek the garden for rest and health, it is well to know of Mr. White's designs.



# THE GARDEN

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## ROYAL HORTICULTURAL SOCIETY,

### THE TEMPLE SHOW.

IT was a grey day on Tuesday when the society opened its exhibition in the gardens of the Inner Temple, rain from early morn until evening, without a gleam of sunshine to gladden what has become one of the most fashionable events of the London season. We must repeat what we have written many times before, that one Temple show is much like another; but on this occasion the exhibits were certainly more varied, the flowers fresh and bright, and the groups for the most part arranged with skill and discretion. The advice so repeatedly given that it is to the interest of trade growers to avoid crowded collections for the sake of variety is bearing good fruit. A jumbled mass of common things is not instructive, and would-be purchasers pass from wearisome collections to groups in which the individual plant is well displayed and plainly and carefully labelled.

The tents were surrounded with beautiful groups of trees and shrubs, a marked improvement upon those of last year; but, unfortunately, the drenching rain of the first day made an inspection of them uncomfortable and depressing.

Orchids were superb, and many of the leading trade and amateur collectors were represented. Roses, as usual, the variety Dorothy Perkins in particular, attracted crowds of visitors, and both hardy and indoor plants were of quite average merit. The keen horticulturist seeks for the new plants at the Temple show; it is an occasion for the showing of many beautiful novelties. The hybrid *Nicotianas* from Messrs. Sander and the *Gerberas* from Mr. Lynch, curator of the Cambridge Botanic Gardens, may be singled out for special reference, and the *Odontioda Vuylstekeæ*, a cross between *Odontoglossum Pescatorei* and *Cochlioda noezliana*, was the most remarkable hybrid among the Orchids.

Early in the morning of the first day the show was graced by the presence of the King and Queen. It was a memorable show in a memorable year, and great praise is due to those who have worked with such enthusiasm to make the centenary exhibition in the Temple Gardens worthy of so historic an occasion. To the council, and especially to the secretary, the Rev. W. Wilks, and to Mr. Wright, the superintendent of the show, the heartiest praise is due.

## THE COUNCIL.

A CENTENARY must always be an interesting celebration. As our readers are aware, the Royal Horticultural Society has now completed the 100th year of its existence, having been established in March, 1804. The story of its long and honourable career has been told already, but never at any point of its history has it shown greater vitality or has gathered in a larger roll of Fellows than in 1904. This remarkable accession of members is due primarily to the widespread interest in horticulture that seems to permeate all classes, but the council, which is of course the guiding hand in all affairs of the society, have had a large share in promoting this success, and sending the old institution on a path of peace and prosperity. The present council have worked loyally and unselfishly towards making this year a memorable one, and will leave the fruits of their great efforts in a new hall in Vincent Square and the partial equipment of the garden at Wisley, given by Sir Thomas Hanbury, K.C.V.O., V.M.H. To Sir Trevor Lawrence, Bart., V.M.H., the president, friends and foes alike will give unstinted praise for his devoted service to the society for nearly twenty years—years of storm and sunshine; but whatever the difficulty, by tact and courtesy and genuine love for horticulture, he has brought the old ship into the calm waters of prosperity, and made its watchword "Horticulture," and nothing else. By his side the Rev. W. Wilks, the Vicar of Shirley, has worked for almost as long a period. If Mr. Wilks had only raised the beautiful Shirley Poppies his name would have become a household word in gardening circles; but he has, by a determination and skill worthy of admiration, placed the society on a sure foundation. It is due to the secretary that the *Journal* was re-established, and what that means every thinking Fellow knows. The meetings at the Drill Hall are more interesting, and the lectures more varied. Baron Sir Henry Schröder, Bart., has throughout his long life made horticulture the study of those quieter moments which give health and interest to a busy life, and without his ready help in all ways the new Hall would have remained a thing strived for but never obtained. We are happy in writing this with a knowledge that the practical work of the society begun at Chiswick will not lapse, but continue with greater fervour at Wisley. Mr. William Marshall has served longer than any

member of the council, joining in 1869. His work in the past in the arduous duties with the society's employees of managing the country shows is not forgotten. He was appointed chairman of the floral committee on the death of the Rev. Joshua Dix in 1870, and served until 1873, when the council was turned out. After acting as chairman of the fruit committee in 1888, Mr. Marshall served in a similar position for the floral committee. It is almost needless to write of the zeal of Mr. Harry J. Veitch in bringing the society to its present position, and of his liberality and unwearied efforts to relieve the sufferings of gardeners in their distress, for that is known to all who have horticulture at heart, and the earnest work of Mr. George Bunyard, Mr. Alfred H. Pearson, and Mr. H. B. May has been for the bettering of the society in all ways.

For many years also the society has had the invaluable help of Mr. Gurney Fowler, the treasurer, and never have his duties, so willingly given, proved more arduous than during the past few months, when the erection of the new Hall has made this office anxious and unenviable. We feel it is necessary with the publication of a supplement to write of the members of the council who are there represented, but there is a difficulty when all work so assiduously in preserving a proper balance of appreciation. The Earl of Ilchester, through his kind permission, has allowed the society to hold a great show in summer in the beautiful grounds of Holland Park, and associated with him in his work on the council are men whose names are known the world over—Captain G. L. Holford, C.I.E., C.V.O., and the Hon. John Boscawen. Of late years the R.H.S. has had the help of Mr. Frederick Lloyd, J.P., and Mr. Arthur L. Wigan, and with such a council, all endeavouring to maintain the traditions and remove the faults of the past, this powerful society for the promotion of horticulture will continue its great and interesting work at home, and spread its influence wherever practical horticulture is a serious industry; for an industry it is, and as the years roll on this will become more and more apparent. Mr. Bilney is the member appointed a few weeks ago, when Lord Redesdale was compelled through family reasons to resign, a resignation that all who know his enthusiasm for trees and shrubs and Bamboos will unfeignedly regret.

While thinking of the good work of the present council, we are not forgetful of the services of those who have laboured in the past.

## SOME SEA-COAST FLOWERS.

**A** DAY late in May upon the northern coast of Cornwall. A coast-line of bold headland, and shore beset with tumbled masses of jagged slate-rock; a western outlook over the endless sea towards America.

The headlands rise to a towering height and overhang in a way terrifying to look at from such landward points below as can be reached when the tide is out. Their seaward bases plunge down into deep water. Within the tide-levels they are scooped into great caves and hollows. The place is always in shade. From its position no ray of sunlight can ever fall upon it; it is gloomy—horrible. The consciousness of the vast mass of overhanging cliff, the wet blackness of the rocky wall fretted to a spiny surface as hard as iron, the unceasing thunder of the bursting waters—give an impression of Nature in her most savage and cruel mood. Even the colour of the sea in this dusky hollow, a dull, deep, sullen green, as seen from above, accords with the general impression of pervading gloom.

It is a relief to turn away from it and to move northward towards the regions of sunlight. Within sight is a place between two down-capped heights that looks possibly accessible, something between an undercliff and a moraine. It is beyond a little valley where a rushing stream runs down into the sea. It proves not to be difficult of access, for an old footpath passes a point that is very near it. The path first winds up a rough rocky track, and later becomes a green trough with steep sides of close, short turf. Many centuries old this path must be, first worn a little hollow by foot traffic from the shore to a coast hamlet, and thence inland (probably the scene of much smuggling in the end of the eighteenth and beginning of the nineteenth centuries); then deepened gradually by rushing rain.

A scramble out of the grassy trough—the banks are steep and 8 feet to 12 feet high—and a little way to the left towards the sea and there is the broken ground, ridged with sheep-tracks and bounded above by the rocky wall. Here all is cheerful light and brightness. It is a paradise of wild flowers. The upward edge of each little sheep-track is a flowery rock-wall, the home of the Sea Pink, our familiar garden Thrift. Though so willing a plant in cultivation it only grows spontaneously within sound and smell of the sea. Except in the most sheltered hollows the stalks of the flowers are short, 2 inches to 4 inches being the average, but in the most exposed places the dense cushions have short leaves lying quite flat and closely-compacted, so that when only in young bud, as many of the plants are now, it is hard to believe that it is not a tuft of *Silene acaulis*. The colour of the bloom varies much, from almost white to the usual pink of the one most familiar in gardens. The colour, whether light or dark, is always very low in tone. This is specially noticeable in a garden, where I have found

that it requires to be carefully placed, preferably with plants of grey foliage only, or with other indefinite Pinks, such as those of the Cud-weeds (*Antennaria*). It is one of the most charming of rock plants, but best grown in poor, stony soil, where it will retain its dwarf habit and freedom of bloom.

It is lovely in the rocky ledges. Some of these have their closely-packed, sharp-edged slaty strata twisted into fantastic forms, as if they had been constrained into their final shape while still writhing, plastic with heat or intolerable pressure in the far away ages of their structure or upheaval. All along the fissures of the pained and tortured rock sit the neat cushions of the sweet, tenderly-tinted flowers cheerily laughing in the sunlight. Where a space of ledge comes nearly level with the eye, and the pink flowers show in whole sheets and drifts against the grey rock, the heart of the beholder just melts into a *Te Deum* of praise and thankfulness. No gardening done by human hands can approach it. One can only look and look, and humbly strive to learn the lesson. And tumbling out of rifts in the sheer rock, just above this lovely ledge, are sheets of the white Sea Campion, with its large milk-white bloom and blue-grey leaves.

What a lesson in good gardening! A few square yards of broken cliff; shattered ledge and upright rock; and just two kinds of plants growing in gracious companionship.

In general we cannot imitate Nature exactly in our gardens, yet here is an example that might perhaps be nearly reproduced; but the teaching of it may be readily understood and applied. It is that in our gardens we are always tempted, from our love of the beauty of individual plants, to have a crowd of specimens, rather than to restrict the numbers in order to have the garden more beautiful and its scheme and aim more restful and comprehensible.

Passing onward along the face of the broken cliff, the sheep-track narrows and ends abruptly in a sheer descent. Immediately to the right is upright rock 6 feet to 9 feet high, to the left broken rock and grassy inclines too steep for foothold; then cliff, and, far below, waves coming in from the whole wide Atlantic, breaking against the ridges of black rocks with a never-ending thunderous roar.

The explorer must return, for there is no going on; but, looking up, there is another whole flower-picture! Above the wall of rock that is now on the left-hand side of the path, and between it and the foot of the upper cliff, is a steep, inaccessible slope of short turf. It is so thickly set with some small pale blue flower, and the eye catches the whole width of the slope—some 15 feet—so much foreshortened, that the flowers tell almost as a mass. And they are so nearly of a height with the blades of grass, and the blue of the blossom and the green of the grass are so closely interwoven, that the effect is like what in draper's jargon is called "shot"—as in a piece of silk, when two distinct colours are woven together, or as the different colours show in a pigeon's neck. It was difficult at first to see what the flower was, though it was easy to guess; but

one or two, growing in a cleft of the rock wall within hand reach, proved that it was rightly taken to be *Scilla verna*, the lovely little Squill so common on the Cornish coasts.

Other plants in abundance are the ever-delightful Bird's-foot Trefoil (*Lotus corniculatus*) and the showy Lady's Fingers (*Anthyllis vulneraria*). This hangs out of the rocks in places for the most part inaccessible. It was not yet fully in bloom, and all that were to be seen were of the typical yellow colouring. It is a peculiarity of these west-country sea-cliffs that they produce a variety of this handsome plant of more stunted habit, with flowers often of red or purplish colouring.

Frequent among the cliffs, and in the hedges for half a mile inland, are two of the Scurvy-Grasses, the common and the Danish; weedy-looking things generally, but some of the tufts of the common kind are so densely flowered that they have quite a handsome appearance, with the general effect of an Iberis.

Wall Pennywort is everywhere, in cliff, and wall, and stone-built hedge, and with it a quantity of a Stonecrop, probably *S. acre*, but possibly *S. anglicum*; much of this is of a beautiful red colour. It grows in sheets in the slight depressions of some rocky slabs lying nearly flat, the close leaf masses of all shades of colour between rosy red and tender green.

The rushing stream at the bottom of the little valley has large patches not yet in flower of the yellow *Mimulus*, that has become naturalised in so many districts. Ferns are everywhere; nine of the common kinds are abundant, the most frequent being *Scelopendrium* and *Asplenium Adiantum nigrum*; both in great quantity in the stone-built and other hedge-banks. G. J.

## THE LILIES.

(Continued from page 367.)

### LILIUM LONGIFLORUM.

**V**AR. GIGANTEUM.—See *eximium*, of which it is a selection only.

Var. *Harrisii* (the Bermudan long-tubed White Lily) is a strong-growing form of var. *eximium*. Its robust growth is, or was, maintained by good cultivation in Bermuda. This plant grown side by side with var. *eximium* does not differ greatly from it, and its early flowering, which gives it the name of Easter Lily, is the natural result of cultivation in a warmer climate and earlier growing season than our own or that of Japan.

Var. *Insulare* is a recently introduced form from an island of the Bonin group in the Megalhaes Archipelago. It is very robust, and equal in stature to the variety *Harrisii*; indeed, its resemblance to the Bermudan Lily is so marked that when first sent to this country it was considered to be the wilding from which *Harrisii* originated. This variety differs from all the other forms of *longiflorum* (excepting *Harrisii*) in its widely expanded tubes—more resembling a well-developed *L. japonicum colchesterense* in this respect. The bulbs resemble those of *L. Harrisii* exactly; they have the same high shoulder and prolonged scale tips. It grows well in the open border, far better than in a pot, and makes huge masses of stem roots. The unusual

activity of these relieves the bulbs of considerable strain, and they are therefore enabled to flower better in the second and third seasons than is usual with *L. longiflorum*.

*Var. Takesima* (Hort.), (*Jama-jari* of Siebold) is a very distinct form from high altitudes, and is hardier than any of the large-flowered trumpet Lilies. This variety is always chosen for forcing in the one case and retarding in the other. Its season of growth being naturally short and rapid, it responds readily to heat, and the bulbs do not suffer from the freezing process in the least. It will supersede all the other forms of *longiflorum* for earliest and latest forcing, and though under normal conditions in the open air it is not so effective as *eximium*, it will last more than two seasons if well grown. Bulbs large, distinctly shouldered, quite flat on the top, the centre somewhat depressed, roots very numerous. Stems 2 feet to 3 feet high, purplish below, green above, with a few purple lines at the insertion of the leaves, rooting very freely from their bases. Leaves narrowly lance-shaped, recurving, thickly arranged on the stem, very dark green. Flowers four to six in a close umbel, always slightly drooping, keeled pink along each mid-rib externally. The free ends of the petals do not reflex to any extent, and the funnel is very wide at the mouth, and gradually narrows to the base. Total length 7 inches to 8 inches. Filaments equal.

*Var. Wilsoni*.—See *var. eximium*, of which it is a selection only.

**CULTURE AND USES.**—The *longiflorum* group of Lilies is of the greatest use for the greenhouse and the conservatory, and they are generally described as hardy, but this is not always the case. The bulbs flower grandly the first year, moderately well in the second, but what they will do in the third year depends entirely upon the cultivator. It is possible by careful treatment to keep them for several years, but the trouble involved is great, and it is better to root them out and replant with fresh bulbs. It is a pity they are not more used than at present in the mixed borders. They are effective massed in beds; in fact, we know of no other Lily so suitable for this purpose—they will grow well in any soil in shade or in strong sunshine. As to choice of varieties, there is nothing better than *eximium* for general purposes, but for lasting *Takesima* and the less important *formosanum* are the better plants. These should be used where a display in successive years is required rather than as temporary bedding plants. It is as pot plants for the decoration of the conservatory that they prove of greatest use. Here, again, *eximium* is the finest variety when normally grown—its form *Harrisii* for the earliest display, *Insulare* to succeed it, with *Takesima* for later growth prove the best in their respective seasons. We prefer large roomy pots capable of containing three or four bulbs, for in this way well developed specimens are obtained, the small weakly plants seen in markets, though useful in their way, give little idea what *L. longiflorum* is like when well grown. It is best to plant the bulbs an inch or two above the drainage, and the stem roots as they appear should be fed little by little as they grow. Thus treated they reach their finest development, and are better in every way than plants in the open. The cultivation of retarded bulbs calls for a few additional remarks. In the first place it is quite unnecessary to give in the retarding process a lower temperature than 29° to 30° Fahr., as lower than this does harm. At whatever season they may be started into

growth the normal temperature of their proper growing seasons must be maintained, choosing 50° Fahr. as the safest mean temperature. These retarded bulbs are of great service in filling up blanks in the plant borders, especially where it is desirable that the gardens should be at their best in September. Planted in May they grow freely and flower quite as well as non-retarded roots, but they require unusual attention in watering when the summer is very dry. Those forms of *L. longiflorum* that have tints of pink on the outside of the flowers are the hardiest of the group, and these, it is suggested, should be used for general planting, although they do not bloom so freely as pure white flowered varieties.

G. B. MALLETT.

(To be continued.)

### NOTES FROM SWANSWICK.

A FINAL experiment in broadcast sowing of such flower seeds as Sweet Sultan, annual Chrysanthemums, Portulaca, Marigold, and so on has convinced us that in heavy land like this it is a failure, and that it is far better to sow in boxes. The extra labour of pricking out is more than balanced by the facts that out-of-door sowings come up very irregularly, and are accompanied by such masses of weeds that they occupy a great deal of valuable time in the necessary hand-weeding and thinning. If the seeds were not there the ground could be forked over and the weeds buried wholesale once or twice before the box plants were put out, a job that would be done in a few minutes and be radically effective.

We are now having splendid growing weather, mild nights, strong sun, and warm showers. I have never seen *Primula Sieboldi* so good, in fact all the garden *Primulas*, from *P. rosea grandiflora* onwards, have been grand. The latter is a most exquisite bit of colour, the only true pure rose-pink visible just when it flowers, and thus inestimable. I have a piece of border that for twenty years lay untouched under Fig, Medlar, and other half derelict fruit trees, at the bottom of a bank. It was a mass of undergrowth, the only flowers a few degenerate *Columbines*, and when we dug it the soil was mainly fibre. In this, without any manure having been added, *Narcissi-Barri* conspicuous, poeticus, a few *William Goldring*, and quantities of early Trumpets—have done splendidly, and it also grows to perfection *Primula cirtosoides*, *P. rosea*, *P. japonica*, *Hemerocallis flava*, *Saxifraga granulata plena*, good *Aquilegias*, *Anemone japonica* in variety, and *Michaelmas Daisies*. There is some water under the surface at one end, which accounts for the success of the *Primulas*; the other end is drier. I believe manure to be very much overdone in many, if not most, flower gardens, and I am sure that if fibrous stuff, decayed turf, and leaf-mould were often substituted heavy soils would be much improved. In this garden stable manured seems little short of poisonous to a good many plants. It kills coloured *Primroses* wholesale, and even some *Pyrethrum roseum* clumps set in manured soil nearly died, while a planting of the same where only leaf-mould and a little burnt stuff had been used went ahead beautifully, and are twice as fine again this season. Also, we seem to get slugs on the manured land in great excess over what trouble us on that not so dressed. For vegetables, of course, stable and farm manures are necessary even on this land, and I say nothing about them. But even *Roses*, gross feeders as they are, do not seem to benefit at all by having buried manure about them; they do best if it is left alone and only given as top-dressing after they are a few years planted.

*Ranunculus glacialis* is flowering well, but I am disappointed that my flowers are pure white—like a small fleshy *Buttercup*—and show no tinge of pink. I greatly wished to flower it as it is seen in the illustration, plate 2, of "Hoffmann's Alpine Flora," where it is a bright rose-pink. It is set at the foot of a rather steeply sloped and very damp rockery, on a level strip about a foot wide, between the stone edging of the path and the

beginning of the slope, on which *Epimediums* are planted and do well. It is in peat, sand, and very fibrous loam, thoroughly mixed with pounded limestone, which ought to be sandstone, but we have none. It gets about three hours' sun in the middle of the day. The *Epimediums* on the bank above are underplanted with *Acæna*, which gives a very pretty effect. Close by there is a sunk pan of water, planted round with *Gentiana verna* now flowering, despite the fact that it only gets the same modicum of sun as the *Ranunculus*. It was associated with a small planting of *Primula farinosa*, but although the crowns came strongly about February, they then died completely off, after having a slight covering of leaf-mould, which I thought would protect them from cold winds and frost, and now only one is left. The *Gentiana verna* came from Ireland, the tufts mixed with fine grass, which it was impossible to separate, and ever since the grass and the *Gentians* have grown together, to the apparent satisfaction of the latter.

We did not take up a single Tulip again last season, and never mean to engage in the great labour of doing so again, for never had we a finer show than of those that have now been three years in the ground. They do not deteriorate at all here, the originals all came up, early dwarfs and May Tulips alike, and with them many small ones. This was by no means our experience in a former garden, where the soil was lighter, and where the advice one always gets, to lift annually, was fully justified. The only failure was of *T. saxatilis*, which was all blind.

M. L. W.

### THE TEMPLE SHOW.

OFFICIAL LIST OF AWARDS.

THE order in which the names are entered has no significance, but is purely accidental.

*Veitchian cup*.—Messrs. W. Paul and Son.

*Gold medal*.—Messrs. James Veitch and Son, for stove and greenhouse plants; Messrs. Sander and Sons, for Orchids; Mr. A. J. A. Bruce, for *Sarracénias*; Messrs. Fisher, Son, and Sibray, for trees and shrubs; Mr. G. Mount, for *Roses*; Messrs. Rivers and Son, for fruit trees; Messrs. R. Wallace and Co., for Lilies, Irises, Tulips, &c.; and Baron Schröder, for Orchids.

*Special prizes for arrangement*.—Sir Frederick Wigan, Bart., Messrs. James Veitch and Son, and Messrs. R. Wallace and Co.

*Silver cup*.—Mr. Irwin Lynch, for hybrid *Gerberas*; Messrs. Cannell and Son, for vegetables, *Cannas*, &c.; Mr. J. Russell, for stove and greenhouse plants, &c.; Messrs. W. Cutbush and Son, for clipped Yews and herbaceous plants; Messrs. Paul and Son, for *Roses* and herbaceous plants; Messrs. Cuthbert, for *Azaleas*, &c.; Messrs. Hill and Son, for Ferns; Messrs. Jackman, for Clematis and herbaceous plants; Messrs. Sutton and Sons, for *Cinerarias*, *Gloxinias*, &c.; Messrs. Cheal, for trees and shrubs; Messrs. R. Smith and Co., for Clematis and herbaceous plants; Mr. Charles Turner, for *Roses*; Sir A. Henderson, Bart., Faringdon, for vegetables; Mr. S. Heilbut, Maidenhead, for pot Vines and *Cherries*; Messrs. Blackmore and Langdon, Twerton-on-Avon, for *Begonias*; Messrs. Charlesworth and Co., Heaton, Bradford, for Orchids; J. Colman, Esq., Reigate, for Orchids; Messrs. J. Backhouse and Son, York, for alpine and rock plants; Messrs. A. Dickson and Sons, Belfast, for Tulips; Messrs. H. Low and Co., Enfield, for Figs, *Carnations*, and Orchids; and Captain George Holford, C.I.E., C.V.O., for Orchids.

*Silver-gilt Lindley medal*.—M. Vuylsteke, for *Odontioda Vuylstekeae*, a very extraordinary hybrid Orchid.

*Silver-gilt Flora medal*.—Messrs. J. Laing, for *Begonias* and *Caladiums*; Messrs. Barr and Son, for pigmy trees and herbaceous plants; Messrs. Ware and Co., for *Roses*, *Begonias*, &c.; Messrs. Peed and Son, for *Caladiums* and *Begonias*; Mr. H. B. May, for Ferns, &c.; Mr. Amos Perry, for herbaceous plants; Messrs. William Bull and Sons, for Orchids and foliage plants; Messrs. Cripps, for Acers and trees and shrubs; Mr. R. Farrer, for rock garden plants; Messrs. Pritchard, for herbaceous plants; Messrs. Hobbies, Limited, for *Roses* and *Carnations*; Messrs. John Waterer and Sons, for *Rhododendrons*; R. Ashworth, Esq., for Orchids; Messrs. Cowan, for Orchids; Messrs. Cypher, for Orchids; Messrs. Carter and Co., for *Calceolarias*, *Gloxinias*, &c.; and Messrs. Fromow, for trees and shrubs.

*Silver-gilt Knightian medal*.—Mr. C. Ritchings, Guernsey, for Melons and Tomatoes.

*Silver-gilt Banksian medal*.—Messrs. Balchin and Sons, Hassocks, for hard-wooded plants; Messrs. Pugham, Emsingham, for rock plants; Guildford Hardy Plant Company, Guildford, for herbaceous and alpine plants; Messrs. Dobbie and Co., Rotheray, for *Dabbias*, *Violas*, &c.; Mr. H. J. Jones, Lewisham, for Sweet Peas, *Begonias*, &c.; Mr. W. J. Godfrey, Exmouth, for *Pelargoniums*, *Poppies*, &c.; Mr. G. Reuthe, for herbaceous plants and alpines; Messrs. Frank Cant and Co., for *Roses*; J. Rutherford, Esq., for Orchids; Messrs. Ladham, for hardy perennials; and E. Ascherson, Esq., for *Calceolarias*, &c.

*Silver Flora medal*.—Leopold de Rothschild, Esq., for *Geraniums*; Hon. A. H. T. Montmorency, for Tulips, &c.; and Lord Aldenham, for *Streptocarpus*.

*Silver Knightian medal.*—Mr. S. Mortimer, for Cucumbers and Tomatoes; and Mr. R. Stephenson, for Asparagus.

*Silver Banksian medal.*—Miss Crooke (Lady Warwick Hostel), for vegetables; Mr. J. Cuckney, for Strawberries; Mr. A. J. Harwood, for Asparagus; and Mr. W. Godfrey, for Asparagus.

*Cultural commendation.*—Mr. J. Hudson, V.M.H., Gunnersbury Park Gardens, W., for Roses.

#### ORCHID COMMITTEE AWARDS.

*First-class certificate.*—To *Laelio-Cattleya digbyano*-Mossie Westonhirst variety, from Captain Holford, Westonbirt, Tetbury, Gloucester; *Odontioda Vuylstekeae*, from M. Ch. Vuylsteke, Loochristi, Ghent; and *Laelio-Cattleya Fascinator* variety King Edward and L.-C. canhamiana Rosslyn variety, from Messrs. Charlesworth and Co., Heaton, Bradford.

*Award of merit.*—To *Laelio-Cattleya* X *Martinetti* Tring Park variety, from the Hon. W. Rothschild, Tring; *Odontoglossum venustum* and *O. concinnum latum*, from M. Ch. Vuylsteke, Loochristi, Ghent; and *Cattleya Stepmanni*, from M. A. A. Peeters, Brussels.

*Cultural commendation.*—To *Cymbidium devonianum*, from Sir F. Wigan, Clare Lawn, East Sheen.

#### FLORAL COMMITTEE.

*First-class certificate.*—To *Gloriosa rothschildiana*, from the Hon. W. Rothschild, Tring Park, Tring.

*Award of merit.*—To *Pteris Binotii*, from Messrs. J. Hill and Son, Lower Edmonton; decorative *Pelargonium* Lady Decies, from Mr. Charles Turner, Slough; *Wahlenbergia serpyllifolia*, from Mr. R. Farrer, Igleborough, Lancs; *Begonia* (double) Mr. W. H. Edwards, from Messrs. T. S. Ware, Limited, Feltham, Middlesex; *Rose Perle des Neiges*, from Messrs. William Paul and Son, Waltham Cross, N.; *Begonia Avalanche* and B. Lady Curzon, from Messrs. Blackmore and Langdon, Twerton-on-Avon, Bath; *Dodecatheon Dame Blanche*, from Messrs. R. Wallace and Co., Colchester; *Campanula rupestris*, from Messrs. W. Cutbush and Son, Highgate; *Azalea mollis* X *sinensis* Ellen Cutbush, from Messrs. R. and G. Cutbush, Southgate; *Lupinus polyphyllus rosea*, from Messrs. J. Cheal and Sons, Crawley; and hybrid perennial *Lupinus* (for strain), from Messrs. Barr and Sons, 12, King Street, W.C.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 6.—Royal Botanic Society's Grand Horticultural Exhibition, Botanic Gardens, Regent's Park (six days).

June 8.—East Anglian Horticultural Club Meeting.

June 14.—Royal Horticultural Society's Drill Hall Meeting; Horticultural Club, House Dinner 6.30, Discussion opened by Sir John Llewelyn, Bart., on "Himalayan Rhododendrons."

June 15.—York Gala (three days).

June 28.—Royal Horticultural Society's Drill Hall Meeting.

July 6.—National Rose Society's Temple Show; Southampton (two days), Croydon, Hereford, and Hanley (two days) Horticultural Shows.

July 7.—Norwich Horticultural Show.

July 12.—Royal Horticultural Society's Holland House Show (two days).

**Royal Botanic Society's exhibition.**—In connexion with the great horticultural show, to be held in the Royal Botanic Gardens next week, it was announced that Professor Schlich would give a lecture on forestry on Wednesday. Professor Schlich, however, has been called to the Continent on business, and Professor Fisher, Cooper's Hill College, will lecture on the same subject in his stead.

**Scientific work of the Royal Horticultural Society.**—Reference has already been made to the council's intention to start a scientific station at Wisley as soon as the new Hall has been paid for and the more general work of the gardens organised. The initial cost of the laboratory and other buildings, and of the necessary instruments, can hardly be far short of £1,500 or £2,000, and the annual expense for salaries and general upkeep would be at least £500 a year. It is confidently hoped that the horticultural research station will be the pioneer of many such centres of study and investigation throughout the country. The students being trained in the gardens will also in due time thus have the additional advantage of an insight into the methods of modern scientific research. The many problems in plant breeding, in the treatment and investigation of plant diseases, and in hybridisation, will be approached in time from every side, and the application of gases, of electricity, and of various chemical agents will be both practically and

scientifically demonstrated. Scientific meteorological work has already been begun at Wisley, and the observing station in the gardens bids fair to rank as one of the best in the kingdom. The instruments in use are as follows: 1. A standard maximum thermometer, Negretti pattern. 2. A standard minimum thermometer, Rutherford pattern. 3. A psychrometer—dry and wet bulb standard thermometers. 4. Three soil thermometers, Symons' pattern—(a) one at 1 foot deep, (b) one at 2 feet deep, (c) one at 4 feet deep. 5. Two terrestrial radiation minimum thermometers with cylindrical bulbs. 6. A stout 8-inch copper rain-gauge, Meteorological Office pattern. 7. A Campbell-Stokes sunshine recorder, new Meteorological Office pattern. The thermometer screen is a "Stevenson," Royal Meteorological Society's pattern. All the thermometers have certificates from the Kew Observatory, giving their errors at all parts of the scale, and the whole station has been placed under the inspection of, and is being worked in co-operation with, the Government Meteorological Office.

**"Kew Hand List of Orchids."**—A second edition of the hand list of Orchids cultivated in the Royal Gardens, Kew, has just been published. In the preface to this edition the Director of the Royal Gardens says: "The collection now includes a larger number of genera (220) than in 1896, and a somewhat larger number of species (1,850), including well-marked hybrids. Only varieties of botanical interest have been enumerated. What may be called 'garden hybrids,' the number of which now known may be counted by hundreds, are of little scientific interest, though commercially some of them are of great value. They are only sparingly represented at Kew. The Kew collection has much improved in health since the reconstruction, in 1898, of the houses accessible to the public. A few changes in nomenclature have become necessary, the most important being the separation of species formerly included under *Cattleya labiata* and the breaking up of the genus *Cypripedium*."

***Sciadopitys verticillata* at Cranbrook.**—Lord Medway kindly sends a photograph of this interesting tree, but, unfortunately, it was impossible to get a good reproduction. The tree is between 29 feet and 30 feet high.

**Kew Guild Dinner.**—Members of the Kew Guild, an association consisting of those who are working, or those who have worked, in the Royal Gardens, Kew, foregathered on the occasion of their annual dinner on Monday last at the Holborn Restaurant. Mr. W. Watson, curator of the Royal Gardens and president of the Kew Guild, occupied the chair, and was supported by the director, Sir W. T. Thiselton-Dyer, Mr. W. J. Bean, assistant curator, and practically all the Herbarium and garden staff. Lord Onslow, President of the Board of Agriculture, was the chief guest, and among others invited were Mr. F. Sander of St. Albans, Mr. W. Robinson, and Mr. E. T. Cook. Mr. Watson, in proposing, and the director in replying to the toast of "The Guild," referred to the good work it had done in bringing into touch those who perhaps had lost sight of each other for years; both by means of the Journal and also through their annual meeting. The cosmopolitan character of the Guild was well shown by the numbers of foreign members present, and as evidence of the far-reaching influence of Kew and Kew men, it may be mentioned that the latter were present from Hong-Kong, Trinidad, various parts of India, Straits Settlements, West Africa, and other far-off countries. Both the director and the curator referred to the good that is accomplished by association and combination. The director referred to Kew as the Eton of horticulture, and said that the Guild fostered an *esprit de corps* among Kew men, both past and present. There was prolonged applause when Lord Onslow said, though he was an agriculturist by compulsion, he was a gardener by choice. He wished them to think of the Board of Agriculture as comprising horticulture also. Lord Onslow said how much the pioneer work of Kew men in the colonies was appreciated. He wished continued prosperity to

the Guild, and said that Kew would ever have the sympathy of his Board. Between the speeches and songs men who had been strangers for years took the opportunity of renewing acquaintance, and altogether a most enjoyable time was passed.

***Lathyrus pubescens.***—As I have read a good deal written about the tenderness of the above perennial Pea, I think I might mention, as an inducement to others to try it, that I have a plant that has been out in the open, though in a sheltered corner, all the winter, and it is now flowering beautifully. It is such a good thing and so sweet—which no other perennial Pea that I know of is—that it is worth taking some trouble with. If it will grow in the cold climate of Cheshire—particularly in this part of Cheshire, away from the sea influence—it should do in most places. I have it also growing over the roof of a greenhouse.—B., *Astle Hall, Chelford, Cheshire.*

***Iberis Snowflake.***—This perennial Candytuft is one of the best of this family, and I am sure when it becomes more widely known it will be greatly appreciated. For the rock garden or front of the border it is excellent, having a very compact growth, which does not get straggling as with some of the other varieties. The flower-heads are large, as are also the flowers individually, and pure white. These last in perfection a long time, and are at their best about the third week in May. Cuttings taken during the summer root easily if placed in a cold frame, and these, if planted out early the following spring, flower profusely fully a fortnight before those which have been outside during winter. This is evidently a variety of *I. sempervirens*, and was raised, I believe, by Mr. Smith of Newry.—A. E. THATCHER, *Elstree.*

**The beauty of wall plants.**—I think the subject of wall gardening deserves more attention than is usually given to it. Here (Berkshire) we have several retaining walls varying in height from 18 inches to 5 feet. They are all planted, and have been very gay since the beginning of March. We either sow seeds or put in little plants. I find the autumn to be the best time for planting, as the plants then have a chance of establishing themselves during the winter, and from seed sown now good plants can be obtained ready for planting in November, or cuttings can be struck in a close frame. Some of the best wall plants for early flowering are *Arabis alba*, *A. a. argentea variegata*, *A. alpina plena*, *Draba aizoides*, *Aubrietias*, Wallflowers, *Alyssum saxatile compactum*, *A. s. variegatum*, *A. sulphureum*, *Arenaria balearica*, *A. montana*, *Achillea argentea* (a beautiful plant either in or out of bloom), *Cerastium tomentosum*, *Cheiranthus alpinus*, *Corydalis lutea*, *Dielytra eximia*, *Frodium macradenum*, *E. pelargoniflorum*, *Euphorbia Myrsinites*, *E. polychroma*, *Saponaria ocyrnoides*, *Iberis Little Gem*, *I. sempervirens*, *I. gibraltaria*, mossy and crested Saxifrages of many kinds, and other plants, but those named are among the most showy. One must not forget *Gentiana acaulis*. This is planted on the top of a low stone wall facing north, and is a great success. The little *G. verna* is planted in a brick wall facing west; it is charming, and has been in flower for quite a month.—J. S.

**A blue Everlasting Pea.**—May it not be possible to get a cross between *Lathyrus pubescens* and the hardy *L. latifolius*, in the hope of ultimately securing a hardy blue-flowered perennial variety? The flowers of the former recently shown at the Drill Hall from Burford certainly evidenced that this greenhouse species has growth that closely allies it to *latifolius*. The chief difficulty presented in securing a cross is apparently the fact that whilst *L. pubescens* flowers under glass in May, *L. latifolius* does not do so until some two months later. But that difficulty might be overcome by having plants of the two species in large pots, and whilst retarding one in a cool place help to accelerate the flowering of the other in warmth, and thus get them to bloom simultaneously. Efforts to intercross the odoratus or annual section with the perennials seem so far to have failed. It does not follow, therefore, that the various species of perennial Peas may not intercross and possibly produce some charming hybrids.—A. D.

**National Potato Society.**—Sir J. T. D. Llewelyn, Bart., has kindly consented to become president of the above society.

**Edwardsias** find a home with many other rare and beautiful flowering shrubs in the gardens at Fortfield, the residence of L. Perrin Hatchell, Esq., only a few miles from the city of Dublin. *Edwardsia grandiflora* may be seen just now in full bloom, covered from top to bottom with its massive golden flowers. It is planted at the foot of a brick wall facing west, where it seems quite at home, growing vigorously and flowering annually. *Edwardsias* are considered by most gardeners as difficult plants to flower, but I think the difficulty can be overcome by selecting a well-sheltered border thoroughly drained and fully exposed to the sun, so that the flowering wood is well ripened before the autumn. There are five or six sorts in cultivation, most of which are deciduous and natives of New Zealand. It may be interesting to some to know that the genus is named after S. Edwards, celebrated as a botanical draftsman more than 100 years ago.—SAMUEL BRYAN, *The Gardens, Fortfield House, County Dublin.*

**Horticultural exhibition at Regent's Park.**—From the 6th to the 11th inst. a grand horticultural exhibition will be held by the Royal Botanic Society of London in their gardens at Regent's Park. The Right Hon. the Earl of Aberdeen has kindly consented to be present at the conference of the education section, of which Sir William Collins is president. The following addresses will be given on Tuesday next: 11 a.m.—Address on "Nature Study and its Cognate Educational Subjects," by Sir George W. Kekewich, K.C.B., D.C.L., president of the School Nature Study Union. 2 p.m.—(1) A paper on "Horticultural Teaching Among Adults," by Mr. J. Weathers, F.R.H.S., instructor in horticulture, Middlesex County Council; (2) A paper on "School Gardens and Horticultural Teaching in Schools," by Mr. E. Caesar, Hale Council Schools, Farnham; (3) A paper on "Nature Study in Schools," by Miss V. James, Heidelberg College, Ealing.

**Government Fruit Enquiry Committee.**—The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 17th, 18th, and 19th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Monro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). The following witnesses gave evidence: Mr. Hodge of Blairgowrie, Scotland, a member of the committee; Mr. Clark, K.C., the legal adviser to the Board of Agriculture and Fisheries; Mr. Bell, the Superintending Inspector of Taxes at Somerset House; Mr. Sams of Worthing; Mr. Rochfort of Cheshunt; Mr. A. J. F. Gibbons of Guernsey; Mr. Russell of Glasgow; and Mr. George Bunyard of Maidstone.

**Floral emblems in churchyards.**—We cut the following from the *Daily Mail* of the 23rd ult.: "The vicar of Whaplode, in his parish magazine, asks the residents to note that he cannot approve of jam pots being used to decorate graves. Even earthenware wreaths in glass cases are not approved of, and these, when broken, will be removed. Flowers are preferred, or for permanent memorials arrangements may be made with the vicar for simple, inexpensive, wooden crosses. Those who use real flowers he hopes will remove them from the graves when faded." This subject was referred to in THE GARDEN, June 1, 1901, and what we wrote there may well be in part reprinted. "We feel sure that many good and kindly people who wish to honour their dead by the placing of some more or less permanent token of affection on their graves hardly know what they are doing when they buy these glass cases. They only perceive that the thing they acquire has (to the uneducated eye) a certain prettiness, and does not cost much, either of money or trouble. They forget that while they are thus satisfying their own kindly impulses they are destroying the beauty of the churchyard, and bringing into it an element of vulgar tawdriness

that is wholly in opposition to what should prevail in the consecrated space of ground where we lay our well-loved dead to rest. These glass-covered things are of foreign origin, and those who know the horror of French churchyards, with their quantities of cheap bazaair articles made of beads, and erections like dolls' houses, filled with various personal articles, cannot, without deep concern, see in our beautiful churchyards what look like the forerunners of all this endless train of frivolity and even desecration. We have seen quite commonly in these churchyards an iron wire frame like a hat-rack fixed on graves for the convenience of hanging up these miscellaneous objects. To all of us the churchyard is a sacred place, and while it is our duty to make it as beautiful as we may, it is equally our duty to preserve its dignity, and to suffer nothing that shall mar its unity and repose; above all, not to permit the introduction of things glaringly vulgar. A Yew tree or Cypress well and carefully planted, a white Rose bush on a child's grave, a wreath or cross of natural flowers, made with loving care and placed on a dear grave on some anniversary or festival of the church, and with equal exactitude removed when withered, these are the ornaments that can offend no one, while the tree or bush will grow on to the permanent beautifying of the sacred place. The glare and flash and glitter of these horrible glasses in some times of sunlight make it almost impossible to walk with any comfort in churchyards and cemeteries, while anyone but the most obtuse cannot but see how this insidiously encroaching foreign custom destroys



VIOLA PEDATA IN A POT (KEW).

the reposeful beauty of our country graveyards. Let us hope that the wide-spread protest that is now being made may be the means of checking this thoughtless practice before it has led to more serious evils."

**Viola pedata.**—The Bird's-foot Violet, as *Viola pedata* is commonly called, is a native of dry, sandy woods and rocky hills in North America, and was introduced from that country in 1759. The flowers are large, usually bright blue, sometimes pale or even white, and appear during May and June. The leaves are very distinct, being deeply divided. Although the most handsome of North American *Violas*, *V. pedata* is still comparatively rare in cultivation. There are several varieties. *Atropurpurea* has dark purple flowers, and in bicolor, perhaps the most beautiful of all, the two upper petals are deep violet and the three lower ones delicate bluish colour. The variety *alba* is very rare. *Viola pedata* grows well in a light rich soil in partial shade, and clumps of it in bloom are now very attractive. It may also be successfully grown in pots, as shown in the accompanying illustration.—W. IRVING.

**Tulipa Batalini.**—A notice in THE GARDEN (page 350) on the above-named Tulip induces me to send this note. No one can deny the beauty, and, still less, the remarkable distinction of this species of Tulip in what I fear I must call its "first phase," but the question is whether

it retains its colour (which I think is better described as apricot or apricot-cream than lemon) in cultivation. Last year, or it may have been two years ago, I thought I had lost it, for though the bulbs came up duly under the label which indicated *T. Batalini*, the blooms were pale lemon, yellowish white, or what you will—any way, quite a common colour in Tulips. The same thing has happened this year, when the clump has bloomed stronger; and when I was in my friend and neighbour Captain Reid's garden recently, he made exactly the same complaint. It would be interesting to know whether others have noticed this loss of distinctive colour in this species, which, I observe, has considerably risen in price within the last few years.—J. C. L.

**Adaptation of land for afforestation.**—In order to encourage forestry in the United Kingdom, the Worshipful Company of Carpenters offered prizes some months ago for the best essays on "The Adaptation of Land for Afforestation," and the company has now had the two essays, which were awarded the prizes, printed and published. They are by Mr. A. C. Forbes and Professor W. R. Fisher respectively. The publishers are Messrs. Laughton and Co., Limited, Essex Street, Strand, W.C.

**The late double yellow Primrose.** On the occasion of the meeting of the floral committee of the Royal Horticultural Society on the 16th ult., this old double yellow Primrose was sent by two different persons as a novelty, it having, it was said, been discovered wild in the woods. In each case the exhibitor appeared to think he had acquired something distinctly new. It would, therefore, appear that the common single yellow Primrose will here and there develop into the double form. Did all the many varieties of double Primroses come originally from the single form? Some years ago the Royal Horticultural Society made an award to the double yellow as Cloth of Gold, but it cannot be accepted as distinct from the ordinary late double yellows.—R. D.

**Nature study at the Horticultural College, Swanley.**—A course for those who are desirous of furthering their knowledge of Nature study will be held at the Horticultural College, Swanley, from August 1 to 13. The instruction will be given entirely (weather permitting) out of doors, rambles in the country under the guidance of naturalists being the chief feature. An introductory and a valedictory lecture will be given by the Hon. Sir John Cockburn, K.C.M.G., and by Mr. J. C. Medd respectively. Application for form of entrance and further particulars should be made to Miss Sieveking, hon. secretary, 17, Manchester Square, W. In the annual report of the Swanley Horticultural College we read that "the demand for women gardeners continues, but though the supply of students possessing the necessary amount of experience for posts as head gardeners is insufficient to meet the demand, yet a greater choice of under gardeners' situations would be welcomed to ensure further scope and variety of knowledge for beginners."

**Meteorological notes for 1903.**—Mr. James Whitton, superintendent of parks, Glasgow, has issued his annual Meteorological Notes for 1903, and the effect of the weather upon vegetation. In order to preserve the continuity of the series, the notes have been compiled, as in former years, from the records kept at Queen's Park, Glasgow. "Comparing the records with those of previous years, the most outstanding feature of 1903 is the heavy rainfall registered, the amount (55.52 inches) being greatly in excess of the average of the past twelve years. The first three months were abnormally wet. March proved the wettest month of the year, having only two dry days, and a rainfall of 8.31 inches. The other months with excessive rainfall were—January, with 7.04 inches; February, with 7.11 inches; August, with 6.28 inches; and October, with 7.10 inches. The heaviest fall for twenty-four hours was 2.02 inches, registered on the morning of February 9. The other occasions when over an inch was recorded were—January 10, with 1.30 inches; February 8, with 1.71 inches; and August 31, with 1.25 inches. April again belied its reputation for showers, as it

was the driest month of the year, having only 1.42 inches of rain. April, 1902, however, had only 0.83 inch. The number of days on which no rain was registered was 138, compared with 185 dry days in 1902. Regarding the temperature, in comparing the records with those of the preceding year, it is found that the monthly averages are again low, and it is remarkable that the averages for the year are practically the same as those of 1902. The thermometer in the shade was at or below freezing point (32° Fahr.) on sixty-seven days, and on forty-eight occasions frost, amounting in all to 286°, was registered, as compared with 392° on fifty occasions, with the freezing point reached sixty-five times, in 1902. The lowest reading of the thermometer was on January 13, when it registered 20° of frost. The lowest reading in the preceding year was 10°, or 22° of frost, on February 14. On eight days during the year the temperature did not rise above freezing point; the same happened in 1902. January was the coldest month, with frost on thirteen days, totalling 113°. In 1902 January had 134° on twelve days, and February 149° on fourteen days, the latter being thus the coldest month of that year. The warmest month was July, with an average maximum temperature of 62° and an average minimum of 50°. The absence of heat is noteworthy, as the thermometer in the shade was only at 70° on three occasions during the year, while in 1902 it was at or above 70° six times, and in 1901 twenty-four times."

**Tulip notes.**—We were much struck with the enormous wealth of the Darwin, cottage, and other May-flowering Tulips that were gathered together on Tuesday, May 17, at the Drill Hall, from so many sources and from such long distances. There is in this an ample proof of the far-reaching effect and importance of bringing these showy flowers to what is both practically and virtually the head-quarters of British horticulture, where they can be seen by a large representative body of flower lovers, both of town and country. On the last occasion there were large collections of Tulips from Messrs. Alex. Dickson and Son, Limited, of Belfast and Dublin; from Messrs. Hogg and Robertson, also of Dublin; from Messrs. Bath, Wisbeck; from Messrs. Barr, Messrs. Veitch, and from the well-known bulb firm of Messrs. Wallace and Co., Colchester. What cannot fail to impress even a casual visitor is the great solidity of many of the kinds, a feature alone that so admirably fits them for garden use and general decorative purposes. The brilliant colours in some of these goblet-like flowers, the great firmness and substance of the segments, the long duration of the flowers when expanded, assist in making these Tulips famous in the garden in the month of May. But famous as they are, there is room for a freer use of them as garden flowers generally. Imagine some of these monster-cupped flowers on giant stems, 2 feet high, and further imagine a spacious bed with a hundred or two hundred bulbs so placed that the midday sun is over them, and a picture of brilliance is revealed of which no other May-flowering plant is capable. We have experience of some of these flowers and some idea of their great merit, and we plead for a greater use of the flower that surpasses all else in brilliant colouring. They are as amenable to the field and the farm as to the ordinary flower-bed in the garden; indeed, it may surprise not a few of those who saw the flowers on Tuesday week to learn that the large majority were from the open field, the blossoms cut direct from broad acres in rude health and vigour. We make this statement as we frequently hear remarks about their having been grown under glass and so forth. As a matter of fact, a glass structure is exactly what these May-flowering kinds most dislike, and nothing would more quickly prove their undoing than the weakening effect of a glass structure upon these handsome and bold flowers. Another item of which a mistaken view is by no means uncommon is that these Tulips are expensive, whereas the majority of the best and most worthy are extremely low priced. Novelties there are, without doubt, and ever will be, but these, while of course desirable, are not essential. How greatly these things are

prized may be seen in the eager applications for flowers on the day of the show; and certainly, whether in the garden or the drawing-room, the wealth of beauty these reveal must be ever welcome; indeed, it is not too much to suggest that a good selection should be grown entirely for cutting, for which purpose the more showy self kinds would prove invaluable. Of those we have in mind are such as Clara Butt, salmon rose; Calypso, cerise-crimson; Loveliness, rose-carmine; Margaret, soft pink; Europe, carmine; Norma, salmon rose, with pink border; Pride of Haarlem, brilliant dark rose; Mrs. Farncombe Sanders, fine crimson-scarlet; Suzon, delicate pink, with rose-pink internally. In the nearly black flowered kinds the Sultan, Zulu, Le Noir, and Negro are all conspicuous and good. Quite apart from the above, all of which are of the Darwin section, there is yet an endless wealth of beauty in the so-called cottage, single, late, or May-flowering Tulips. In these alone there is not only much to admire, but ample variety to suit all, and at prices low enough to tempt a large number of flower lovers into growing them by the hundred or thousand.—E. H. JENKINS.

**A prospective schedule of the National Rose Society wanted.**—Would it not be practicable to issue a memorandum with the ordinary schedule of this society to intimate certain special classes which will be open for competition in the following year? In making such a suggestion, I have in mind principally the decorative features of the exhibition, such as pillar Roses in pots and other Roses in pots to form arches or to illustrate bedding and massing. All who grow this class of plant know only too well how important it is to have plants established two or three years, especially those of a climbing nature, and no one can say that a well-flowered plant of a climbing or pillar Rose can be produced in one year. I think this National Show is deprived of much beauty owing to the inability of growers to make arrangements for pot plants in the short time at their disposal between the issuing of the schedule and the exhibition itself, whereas if the provisional notice were given there would be an opportunity to would-be exhibitors to make such arrangements as they thought desirable. I do not think we shall have a perfect National Rose Show until there are arches of Roses, with the fresh appearance which pot plants would give and which *cut sprays* do not give—pillars of Roses, standard Roses, and other picturesque features produced by pot-grown specimens. If the beautiful feature of the May Rose Show at the Temple could be transferred to the July exhibition at the same place what a grand show it would be. I bring this matter forward, knowing as I do that there is a desire on the part of the officials to conform to the wishes of the public for more picturesque displays, and I feel that sufficient notice is not now given in order to obtain the best results.—P.

**Destroying garden pests.**—At this time of the year garden pests are accumulating greatly, and their work will soon cause an outcry of complaint of riddled Cabbages of all varieties, Gooseberry bushes denuded of foliage, worm-eaten Apples, &c. I always look to my Gooseberry bushes, and by lifting up the branches can gather a goodly quantity of pests and drop them into a can of liquid that soon kills them. But now is the grand time for the insidious butterfly and moth. Little do many think about the pretty little white-winged insect flitting airily from plant to plant of carefully treasured Enfield Market, Savoys, Brussels Sprouts, &c., forgetful of the fact that each time she settles for a moment she deposits on the leaf an egg that in a few days becomes a green caterpillar, to the ruin of the crop. For seasons I have been going to suggest a very practical plan for destroying these pests, that I have successfully adopted for many years. It was revealed to me by accident. I was then a young man with a family, and whilst sticking some Peas I held a good branching light piece of birch, very sprayed, that I was going to place in the row, when on an adjacent bed of rich young Cabbage plants just planted I observed several white butterflies sporting to my detriment. Skipping hurriedly across, in a minute

I had struck down five of the marauders, every time I struck down went my enemy. With a cap or a net it is difficult to catch a butterfly, but here was a splendidly effective weapon. I soon gave one to each of my boys and girls, and inaugurated butterfly hunts so successfully that when others complained of having their plants riddled I could show beds of splendid plants, thanks to my butterfly bats and hand picking. Such being the result of an individual exertion, what would be the result if the plan were generally adopted? Butterflies would soon become scarce, especially if whole families of children in each village were stimulated to the work by, say, 1d. per 100 for dead ones. I leave to others to calculate how many eggs a butterfly deposits in a season.—G. R. KING, *East Horndon, Essex.*

## NOTES ON HARDY PLANTS

### IRIS TINGITANA.

I WAS interested in reading Mr. Coutts' note from Killerton on this Iris (page 250), which, as a rule, proves a difficult subject to flower. In my note that accompanied the photograph of *Iris tingitana* in flower in a Cornish garden (Vol. LXIII., page 41) I stated that about a foot beneath the bulbs a thick layer of manure had been placed, and I notice that Mr. Coutts mixed well-rotted manure with his rich loam, with the satisfactory result that almost every bulb flowered. It is, therefore, apparently evident that in this country the Tangiers Iris requires rich food, although it does not receive this in its native habitat. This bears out Mr. Elwes's theory that Cape bulbs and those from warmer countries than our own require stimulants to counteract the effects of our colder climate. The bed of Iris



MECONOPSIS ACULEATA.

tingitana illustrated in Vol. LXIII. has not flowered satisfactorily this season, but I saw some expanded blossoms when I was in Cornwall in March, and was told by a friend that he saw twenty-four full-blown flowers in a bed in a Penzance garden. My own dozen bulbs, though they flowered well last year, have not bloomed this season. Had they been lifted after they died down and replanted in October after the bed was remade they would doubtless have behaved in a more satisfactory manner. At all events this treatment will be followed in the present season.

S. W. FITZHERBERT.

MECONOPSIS ACULEATA.

A VERY fine form of this handsome Himalayan perennial Meconopsis, which flowered in the rock garden at Kew in the middle of May, is shown in the illustration. It is seldom little more than a foot in height, but the present specimen is quite 2½ feet high, with leaves the largest of which is 9 inches long and between 2 inches and 3 inches broad at the widest part. The large flowers, 3 inches in diameter, on first opening have a tinge of purple in them, but change after a time to a beautiful blue. The beauty of the flower is further enhanced by the ring of yellow stamens, which have blue filaments, in the centre of which is seen the round green capsule. Seeds of this particular plant were received from the botanic garden of Saharanpur in the spring of the year 1900, having been collected in the district of Hazara in the previous year. A few seeds only germinated, and one of the plants flowered last year, but was only a few inches high with small flowers. This year, however, it attained its present size, but other plants which were raised at the same time have not yet flowered. It is planted in a mixture of peat and loam, and in a position facing north, but it is exposed to most of the morning sun. This species is a native of the Western Himalayas, from Kashmir to Kumaon, growing at elevations of 11,000 feet to 15,000 feet. It first flowered in this country in June of 1864, when it was figured in the *Botanical Magazine*, t. 5456. The flowers are here represented of a purple colour, while in Royle's "Botany of the Himalayan Mountains" the colour is almost brick-red. This has been explained by the fact that the figure was drawn from dried specimens. It is evidently variable in colour, as Mr. Duthie tells me that he has seen a pure white form, but was unable to procure seeds at the time, so that this desirable variety has yet to be obtained.

Although the number of species contained in this genus is over twenty, less than six are in general cultivation, including the well known Welsh Poppy *M. cambrica*. This and two Californian species, *M. heterophylla* and *M. crassifolia*, are the only western representatives of a genus which is essentially Asiatic, being spread over the Himalayas to Tibet and China and Japan.

*M. grandis*, from Sikkim, where it is found at an elevation of 14,000 feet, is a perennial, forming tufts with lanceolate leaves 1 foot in length on long petioles. The large flowers 3 inches to 4 inches in diameter, of a purple colour, passing into blue, with a ring of orange stamens, are produced singly on naked peduncles about 1 foot high.

*M. nepalensis* is a tall-growing biennial with dark purple flowers, in habit like *M. Wallichii*, of which it has been called a variety under the name of *rubro-fusca*.

*M. paniculata*, the yellow-flowered biennial, is a handsome plant, and has long been grown under the name of *M. nepalensis*, which name it still retains in many gardens.

*M. Wallichii*, the Satin Poppywort, is perhaps the best known and one of the most useful plants of the genus. It reaches a height of 5 feet or more, and bears numerous flowers in branching panicles. Like some of the other species, the flowers vary in colour from purple to blue. Also a biennial, this plant dies after flowering, and as it is often two to three years in reaching this stage, it is necessary to raise plants every spring and have them coming on in pots ready to plant out when of sufficient size.



ANDROSACE SARMENTOSA IN THE ROCK GARDEN AT KEW.

Other species recently introduced and sparingly represented in various seedling stages in one or two gardens and nurseries are *M. bella*, a dwarf tufted plant, 4 inches to 5 inches high, with pinnatisect leaves and solitary flowers, from Sikkim. *M. integrifolia*, from China and Tibet, with entire narrow leaves 9 inches to 12 inches long and rather stout, leafy stems, bearing large yellow flowers about 6 inches in diameter. *M. punicea*, a solitary flowered species, also from China, with entire leaves and flowers as large as the preceding species. *M. racemosa* has a habit similar to that of *M. aculeata*, and is very prickly like that plant, but has entire leaves. It is a native of China and Tibet. *M. simplicifolia*, from Sikkim and Tibet, has almost entire leaves, incised on the margins, and solitary violet-purple flowers. The last species was introduced before in 1855. The Californian species *M. heterophylla* is a charming annual, with pinnatisect leaves and branching stems, about 1 foot high, and nearly brick-red flowers with a dark centre. A free-growing plant, it ripens seed freely, and although only introduced a few years ago it promises soon to become plentiful.

W. IRVING.

ANDROSACE SARMENTOSA.

THE members of this genus are not considered to be among the easiest plants to grow, but given suitable positions a few of them well repay the little extra care and trouble necessary to ensure their well being. Among these few is *A. sarmentosa*, a native of rocky pastures in the Himalayas, from Sikkim to Kashmir, at elevations of 11,000 feet to 12,000 feet. A variable plant in some of its forms it approaches *A. lanuginosa*, but is less silky than that species, with larger rosettes of broader leaves, and producing stolons, which root as they spread, quickly forming large carpets, and studded with umbels of rose-coloured flowers in May. The flowers are deeper in colour towards the centre, which is pale yellow. Given a rocky ledge in full sunshine, planted in light, sandy loam or peat, it soon makes itself at home, and even when not in flower its rosettes of leaves are attractive. Suffering from damp in the winter it is generally necessary to cover the whole plant with a piece of glass raised a few inches above it and in a slanting direction to throw off the rain. In the "Flora of British India" four varieties of this species are given, including *A. foliosa*, which is generally regarded as a distinct species, but which, taken in a broad

sense, is really the maximum form of the species connected with the ordinary one by intermediate varieties. The present illustration is from a photograph taken in the rock garden at Kew of a plant in a sunny position facing south.

W. I.

HOMERIA COLLINA.

THIS pretty Cape bulb is rarely met with in gardens, yet none who have once grown it would dream of discontinuing its culture. Where *Sparaxis* succeed the *Homeria* will undoubtedly flourish, as it is hardier than the *Sparaxis* and increases much more rapidly, while it is far more robust than the *Ixia*, and proves thoroughly at home in a border where the *Ixia* will not live two seasons. The flowers are of a charming buff-pink colour, with a yellow eye, and measure 2½ inches across. Four or more are borne on a stem about 30 inches in height, and the foliage is long and narrow, the leaves being over 4 feet in length and five-eighths of an inch in breadth. The *Homeria* is now in full flower, and a large clump of about fifty bloom-spikes creates a beautiful picture in the full sunlight. The flowers close in the evening and remain shut through the night. I was given a small clump which had made a few inches of growth three years ago, and the bulbs increased so rapidly that I was able to give away 150, some of them flowering bulbs, when I divided the clump last autumn.

S. W. FITZHERBERT.

HARDY EVERGREEN OAKS.

(Continued from page 371.)

QUERCUS TURNERI (Turner's Hybrid Oak). — According to Loudon, this Oak was raised in a nursery in Essex about 1795. It is generally supposed to be a hybrid between the Holm Oak (*Q. ilex*) and the common Oak.

From the first of these, of course, it inherits its evergreen, or nearly evergreen, character, but in size and shape of leaf it more nearly resembles those of the deciduous parent. They are from 2½ inches to 5 inches long by 1 inch to 1½ inches wide, and bright dark green. The margins are handsomely cut into large, rounded teeth. Both surfaces are smooth, the lower one rather glaucous, but the midrib, leaf-stalk,

and more especially the young bark are hairy. In habit this Oak is naturally a small, bushy tree, branching near the ground. It produces fertile acorns, which are rather less than 1 inch long. Although its origin and general character were clearly defined by Loudon, the identity of this Oak appears to have been lost until recently. It has been, and is, known in nurseries by several other names, the commonest of which is *Q. austriaca splendens*. It has also been confused with a Japanese species, *Q. glandulifera*, and was described and figured as such in the *Gardeners' Chronicle*, December 4, 1880. It is a handsome and interesting Oak, and, whilst not strictly evergreen—for it loses its leaves towards the end of a hard winter—it is a desirable tree in positions where only low trees can be planted. It has in times past been extensively planted in the grounds at Kew. One of the largest specimens is over 30 feet high, with a trunk nearly 4 feet in circumference.

*Q. vibrayeana*.—This Oak was named by the late M. Franchet in honour of the Marquis de Vibraye, whom he described as a well-known French arboriculturist, who interested himself particularly in the cultivation of the Japanese evergreen Oaks, of which this is one. Under its correct name the species is little known in gardens at present, and but two small specimens, which were received from the Tokio Botanic Garden, are in the Kew collection. I am, however, inclined to think that it has been for some years in cultivation under other names. The *Q. bambusæfolia* of Dr. Masters (also known as *Q. acuta* var. *bambusæfolia*) appears to me to be the same thing, and I have seen plants of *Q. glauca* which in foliage at least do not differ. In the absence of acorns, &c., however, one cannot dogmatise on such a

question. *Q. vibrayeana* in Japan forms a tree 40 feet high. Its slender-stalked leaves are narrow, lanceolate, 2 inches to 4 inches long, with a long, tapering point, some of them almost Willow-like. The margins from the middle to the apex are minutely toothed, and the lower surface is slightly glaucous. It is undoubtedly closely related to the *Q. glauca* already described, but, according to M. Franchet, it differs by its female flowers being more numerous and forming an elongated spike. The greater part of these fall away without being fertilised, and ultimately but two or three of the narrow ovate acorns are left to ripen on the spike.

*Q. virginiana* syn. *Q. virens* (Live Oak).—It is only in such districts as Cornwall or the mildest parts of Ireland that this Oak is likely to thrive within the limits of the British Isles. It would be interesting to know of any specimens that may exist in Great Britain. Philip Miller is said to have cultivated it in the Chelsea Botanic Garden in 1739, so that if it will thrive at all there ought to be specimens of goodly size somewhere in the country. Loudon, sixty years ago, mentioned a tree at Kew between 40 feet and 50 feet high, and also published an illustration of a specimen growing at the same time in the Duke of Devonshire's garden at Chiswick. It is almost certain, however, that neither of them was the true Live Oak of North America, but simply forms of *Q. Ilex*. Plants have been obtained within the last few years from America for the Kew collection, but in spite of the mildness of recent winters the species has shown that it is too tender for our climate. It is a native of the south-eastern United States, and reaches no further north than Virginia. Both cultivated and wild it is a magnificent tree, and its timber is exceedingly valuable. In the southern cities of the United States it is extensively planted as a shade tree for streets. The leaves are 2 inches to 3 inches long, oblong, whitish beneath when young, blunt at the apex, and entire. The little woodcuts that Loudon published in his "Arboretum" show pointed, distinctly toothed leaves, which appears to be a further proof that the trees he knew were really *Q. Ilex*.

*Q. Wislizeni*.—So far as I am aware, this species is only represented in English gardens as yet by small specimens. It appears to have been first introduced to Kew, where it is evidently quite hardy. It is a native of Western North America, being very plentiful in parts of California near the coast. It has the habit common to most of the evergreen Oaks, being a round-topped tree with a short, thick trunk and spreading branches. It varies in size according to the conditions under which it exists, from a mere shrub to trees 70 feet or more high. Usually it is about midway between those extremes. The leaf is narrow, oblong, with a tapering, pointed apex, deep shining green above, paler beneath; on our specimen they measure from 1 inch to 3 inches long by half an inch or three-quarters of an inch wide, the margins set with thin teeth, and the surface smooth. The acorn is about 1 inch long, of slender shape, the lower half or two-thirds clasped by the cup. W. J. BEAN.

## THE FRUIT GARDEN.

### PRUNING FRUIT TREES.

AS the object of fruit tree pruning is to maintain trees in health and encourage fruitfulness, their habits of growth must have consideration. Apple trees in their early stages grow freely and quickly develop into good-sized trees, therefore to prune them to such an extent as to restrict them considerably neither tends to promote health nor fruitfulness. During a long period, ending about fourteen years ago, I pruned a section of trees of different forms on what is termed the cordon or spur system. Leading growths were cut back to within about 1 foot of their bases, and the side growths to 2 inches or 3 inches. By this method trees were formed, each with cordon-like branches covered with spurs their full length. So far as appearance is concerned they were all that could be desired, but on the whole they did not fruit so freely as could be wished, neither was the health of the trees satisfactory. Canker was present, which I believe was brought about to a great extent by excessive pruning. While this section was being pruned there was another plantation of standards left almost unpruned, and which bore much better crops. The better cropping of the unpruned trees suggested that close pruning was not conducive to fruitfulness; therefore, since the period mentioned, upon the trees which had been closely pruned previously the annual growths were left their full length. To prevent crowding of foliage and the exclusion of sun and air, instead of being pruned closely growths were thinned out while the foliage was off. The trees which were closely pruned in the earlier period have increased in size, and much improved in health and fruitfulness.

One illustration represents Apple Claygate Pearmain, taken after its growths had been thinned. It is about 20 feet high, and as nearly as many feet through. Trees thus allowed to grow freely occupy a large space of ground. They need to be planted 10 feet from the edge of walks, and 20 feet must be allowed between them in the line.

Plum trees in the open fruit well when the growth is thinned in the same way as for Apples instead of being closely pruned. Pear trees are more amenable to close pruning; the cordon or spur system answers well for them. The other illustration is of a Pear tree (Thomson's) about 14 feet high.

*The Gardens, Hatfield.*

G. NORMAN.

### PROTECTING STRAWBERRIES IN FLOWER.

As several correspondents have pointed out, protection of some sort is often necessary if a good Strawberry crop is to be obtained. While the method advocated of arranging a framework of wood and covering with canvas or a double thickness of netting is an excellent arrangement for narrow borders, it is not practicable with most gardeners for use on a large scale, and in many small gardens it may be inconvenient. I am not criticising the efficacy of the method, but rather the difficulty sometimes of putting it into practice. It is surprising what an effectual protection is given to Strawberry plants by covering them with straw litter, just shaking this lightly over them at night when frost is anticipated. It is easily and quickly done, and if a sharp frost occurs this precaution may make all the difference between a good crop and a bad one. I remember once of an instance where during a severe frost in May nearly an acre of Strawberry plants was protected in this way, and a satisfactory crop of fruit was eventually



A TREE OF THOMPSON'S PEAR AT HATFIELD, SHOWING CORRECT PRUNING. (Height 14 feet.)



gathered, while in neighbouring gardens, where the main crop plants were left to take their chance, the quantity of fruit obtained was very small. H. A. P.

THE PROMISE OF FRUIT.

I HAVE rarely, if ever, seen such a remarkable quantity of blossom on fruit trees as this spring, on Pears, Cherries, and Plums especially. The gardens and market orchards in many parts of the country have been a beautiful sight during the last week or two. In the near neighbourhood of London Pear trees are simply loaded with blossom, and the Plum orchards of Lincolnshire and the Cherry plantations in Oxfordshire are now making a wonderful display, to mention just three widely separated districts I have recently visited. While on this subject I am led to allude to the value of fruit trees as ornamental flowering trees through having visited quite recently a garden, where every walk in that part devoted to the culture of fruit and vegetables was partially covered by arches, over which fruit trees are trained. The arches are planted some 6 yards apart, and are connected by means of wires. Over the arches and along the wires Apple, Pear, Cherry, and Plum trees extend their shoots, and at the present time they make a display that few, if any, purely ornamental flowering shrubs could surpass. The growths of the Cherry trees in particular are simply loaded with bunches of blossom. In these positions the trees fruit well also. There can be no doubt that a garden gains considerably in attractiveness when the walks are thus covered, and the space could not be more economically utilised. The abundance of blossom on fruit trees this year seems to upset altogether the belief, which most gardeners seem to have, that a dry, sunny autumn is essential to a good set of fruit the following year. Last autumn was one of the wettest we have ever had, yet I should think that fruit trees have rarely been more heavily loaded with blossom. Some gardeners are complaining that the trees will suffer in growth through flowering so freely, but it is not the flowering but the fruiting which taxes the trees, and it is rather early to say that a good crop of fruit is certain, for frost may do much damage yet. A. H. P.

FLOWER GARDEN.

SOME IRISH TULIPS.

A BOXFUL of glorious Tulips has just reached me from Mr. W. B. Hartland, which were sent from his grounds at Ard Cairn, Cork. The flowers were simply tied in buoches of three or four blooms, on long stems, and laid in a box with some soft paper about them. The petals had wilted a little in the course of the journey, but a night in water stiffened them up wonderfully, and when carefully examined the next morning they were as fresh and rigid as when first cut. For the sake of ready reference I have grouped the varieties in colours, and the largest group includes maroon and almost black, crimson, and deep rose, all self flowers. *Nigrette* is the darkest, almost black, with a dark base; fine shape, and solid in petal. Then follows *Globosa grandiflora*.—Shining maroon-crimson; a fine, deep, showy flower; petals long, but narrow good shape.

*Othello*.—Dark crimson, small, stained base, well formed.  
*Glare of the Garden*.—Shining shaded crimson; long, narrow petals, dark base; as dark as *Othello*.  
*Stella*.—Rosy crimson, with a flush of violet and stained base; a fine bold flower of good colour.  
*Blue Star*.—Deep bright violet-rose, dark base, in the way of *Rosalind*, but with more violet; good form, and very showy.  
*Rosalind*.—Bright deep rosy red, pure base; good build; like a florist's rose breeder.  
*The Moor*.—Bright crimson-red, with a black base; medium-sized; good form.  
*Firefly*.—Bright crimson, with slight flakes of yellow flashing up from the base; medium-sized; good form.  
*Emerald Gem*.—Glistening pale red, with a slight tint of orange on the petal edges, dark base; medium size.

*Gesneriana lutea*.—A glorious pure deep yellow self, pure base; very large and bold.  
*Irioides*.—Pale bright yellow, with a black base; good shape.  
*Lutea pallida*.—A very fine soft pure yellow Tulip; one of the best of the yellow selfs.  
*Leyhorn Bonnet*.—Straw-yellow, with a slightly darker flame up each petal, pure base; large and very striking.  
*Vitellina*.—Delicate primrose, with a slight flushing of yellow on the petal edges; very pure; good build; a beautiful variety. The only white self in the collection is  
*Snowdon*.—Creamy white, the points of the petals having a slight tint of pale green, pure base; good shape. Striped and flaked flowers were represented by  
*Picta aurea*.—Deep yellow, feathered with pale scarlet; good size and shape.



APPLE CLAYGATE PEARMAN AT HATFIELD, SHOWING FREE PRUNING (Height 20 feet.)

*Aurantiaca maculata*.—Scarlet, flushed with orange; long, bold blooms, with a dark base.  
*La Merveille*.—A large flower of a deep rosy red colour, with a slight feathering of amber; long petals; a bold and striking flower, with a slightly stained yellow base.  
*Bronze Queen*.—Coppery rose, with a slight amber feather; scarcely an attractive colour; medium size; dark base. Of yellow selfs there are several:  
*Elegans lutea maxima*.—Yellow, with a slight wire edging of red to the petals; occasionally a flower will come delicately feathered with the same; long, pointed petals, pure base; very showy.  
*Cloth of Gold*.—A small yellow, with an occasional narrow heading of red to the petals; good colour; pointed petals.

*Gold Flake*.—A medium-sized, irregularly flaked yellow and red, pure base; well-built flower.  
*Eyebright*.—A small flower, flaked yellow and crimson-scarlet, slightly stained base.  
*Columbus*.—Flaked crimson and gold, pure base; a showy variety with long, pointed petals.  
*Buenaventura*.—Flaked scarlet and gold, pure yellow base; rather pointed petals; a good and attractive variety.  
*Summer Beauty*.—Flaked with delicate pinky white and bright rose-stained base; good petal; fine bold flower.  
*Dainty Maid*.—A flamed byblemen, the pale purple-violet flame with a feathering of crimson-maroon, stained base; a gay variety. A few showy varieties can come under the head of feathered flowers, such as  
*Sunset*.—Gold, heavily feathered and splashed with bright orange-red; large flower, long petals, stained base; very showy.  
*Billetiana hybrida*.—Clear deep yellow, feathered with rosy red, pure base; pointed petals.  
*Bibersteiniana*.—Pale yellow, with a slight feathering of pale red, a pure base, and very pretty.  
*Marjoletti*.—A small flower of good shape, pale yellow, with a feathering of crimson-scarlet at the base of each petal, stained green base.  
*John Ruskin*.—The most beautiful Tulip of the whole group, and one a little difficult to describe. Delicate lilac-pink flame, with a feathering of soft yellow, pure base; a real gem, having large, long, stout petals.  
*Picotee*.—A very popular variety, creamy white, bordered with pale pinkish rose, on some flowers more heavily than on others; pointed petals, pure base; very pretty.  
*Alba marginata*.—White, with slight rosy pink feathering; a small and chaste variety. Three others possess an individuality of their own:  
*Viridiflora*.—Pale green petals, deeply edged with yellow, a combination which finds many admirers.  
*The Fawn*.—Soft in tint and very beautiful, the petals flamed with delicate pinkish lilac, with blush feathering and pure yellow base; medium-sized; fine in build; a charming flower.  
*Fairy Queen*.—Heliotrope base, and pale flame feathered with yellow; medium-sized; distinct and novel.  
 Most of the foregoing were of strong growth, with stiff, erect stems, the petals of some of the largest reflexing somewhat, but very showy in appearance. The May-flowering species and varieties will always be popular, and to be seen at their best in the garden should be in masses of one variety. Some will, no doubt, prefer the more symmetrical-shaped Darwin breeders, but tastes are comprehensive enough to include all. May is

the month of the Tulip, and if the flowers are cut when about two-thirds expanded they become lasting in water, but a change of water and slight shortening of the stem are requisite every second day at least.

R. DEAN.

### SWEET LAVENDER.

THIS old-fashioned plant, while not very extensively grown by the florist, is always more or less in demand by those having a garden, because of the lasting fragrance of the flowers, which are valued by the good housewife to put in the linen-closet and such like places. It is rather difficult to propagate, unless handled at the right time in the right way. Cuttings taken in December from plants out of doors, even when frozen, root very readily when placed in sand in a greenhouse having a temperature of about 60°. The after treatment is very simple, consisting of potting into 3-inch pots, in which they can stay until the weather is warm enough to plant them in the open ground.

The first year they will produce plants about 6 inches high and 6 inches in diameter and bear a few flowers. They grow so compact and bushy with a little trimming that it is a wonder they have not been more extensively used for edging walks, &c., as it is possible to keep this plant trimmed as closely as box. In the Old Country the Lavender is often used as a small hedge to separate the vegetable from the flower garden, a very suitable place, as it combines the qualities of utility and ornament. The main crop of flowers is produced about the end of June, and if these are desired the shearing should not take place until after that time, as they are produced on the strongest shoots of the new wood. There seems to be some doubt as to which is the true Lavender, *Lavandula spica* or *Lavandula vera*. Plants of both, obtained from reliable sources, have always proved synonymous. As regards the hardness of this plant, this is questionable north of New York. If planted on sandy, well-drained soil, it will come through the winters much better than when on heavy wet soil.

ERNEST HEMMING, in *Florists' Exchange*.

## ROOF GARDENING.

"The city now doth like a garment wear  
The beauty of the morning, silent, bare,  
Shops, towers, domes, theatres, and temples lie  
Open unto the fields and to the sky,  
All bright and glittering."

IF we were up in a balloon, and gazing at the great wide sea of London spreading at our feet, we could not help seeing that it is chimney-pot-land that gets the best of it in many ways; the most air, the most sunshine, and the most light. If all the roofs were gardens, how charming would be the summer view! Considering the chances that lie open to us and the advantages that are offered, we cannot help thinking a good many opportunities of town gardening are lost because of our forgetfulness of the area that lies between the roof and the sky.

Of course there are difficulties about the use of these open spaces for making gardens. English houses are not built suitably for the purpose. To set foot upon our roofs at all is frequently an acrobatic performance only possible to the athletic, and water is burdensome to carry up and down, but a little carpentering and engineering does wonders to smooth the path in these directions. Steps, ladders, and rails are easily arranged and give a feeling of safety on the giddiest height, and rain-water may be caught and stored in tanks. But roof gardening is not confined merely to high altitudes, there are also the more accessible leads, both of lower buildings and bow windows, and there are the upper surfaces of porches and doorways. Moreover, if we take

roof gardening in its widest sense, verandahs and balconies may also be included.

Experience teaches us that the most successful gardening in all these positions is carried out by means of pots, boxes, barrels, and tubs; beds of soil are far more difficult to deal with and less well suited to the requirements of town plants. Tubs are, perhaps, the best receptacles of all, and those who do not care for the expense of buying them in quantity can easily make them out of empty paraffin casks, or what the trade call "fusty" beer barrels, which are easily procured in a brewery district. They must be sawed in two, exactly in the middle, be pierced at the bottom with sufficient holes—five at least—and girded round with stout zinc rings nailed on. If the barrels are painted green and the circles black the effect is very good. The tubs, however, want inside treatment. As soon as they are cut in two each half should be set upside down over a little fire of shavings or dry straw till the under surface is well charred. This preserves the wood and destroys anything that might injure the plants. Stout handles screwed on are indispensable, as one is sure to want to move the tubs about. Now we have our tubs and can consider how to furnish them.

Perennials for the most part are best avoided, all but a few evergreens, which are decorative, and, if kept clean, do well, but annuals and bulbs are the prop and mainstay of the roof-gardener who lives in town, and he will find that rock and wall plants too grow freely.

The association of plants with barrels produces results of beauty that are amazing. When smothered in foliage and flowers it is almost impossible to believe the foundations are so homely. During April and May we can have the Rock Cresses, *Anubrietas*, and *Arabis* tumbling over the sides and covering them with cascades of blossom. Sometimes a few holes pierced midway down the sides will help, when even *Creeping Jenny* is not to be despised. These flowers will give gold colour, white, pink, and purple. From March to June there are those dainty Pinks, *Dianthus caesius*, and *D. fimbriatus*, *Saxifraga hypnoides*, *Gypsophila cerastoides*, the Iberises and Veronicas, with *Myosotis dissitiflora* the earliest *Forget-me-not*. Onwards from June there are *Campanulas*, *Lobelias*, *Ivy-leaf Geranium*, *Verbenas*, *Petunias*, *Heliotrope*, *Carnations*, and *Fuchsias*, all delightful flowers and suitable for growing in tubs, as they are free spreaders and fall about so gracefully. *Carnations* only, with or without a border of Pinks, are very pretty and do well in towns. They should have no sticks among them, but the sprays should be allowed to grow quite naturally in a way we often see abroad, but seldom in England. In Switzerland the window-boxes of the chalets often billow over with them, when the old Red Clove looks lovely. Strawberries, too, grow prettily in tubs and are worth having, if only for the flowers and foliage.

The common hardy annuals we sow in April with seed out of explanatory packets, make a brilliant summer show, that lasts us into autumn. None of them are more pleasing than *Virginia Stock*—a plant of rare good temper, equally content in shade or sun. Another favourite is *Alyssum maritimum*, honey-scented and white as snow. These two are never prettier than when growing side by side.

The cultivation of annuals is particularly advantageous to the roof gardener whose space is limited, because he can clear the tubs and boxes in which he grew them, and use the same receptacles for the planting of his bulbs. Casting aside the last dimmed remnants of

one's summer flowers, nothing cheers one up so much as making a nice soft bed in which to lay the brown and curious new comers. The bulbs will not want barrels, fairly shallow boxes are quite deep enough both for them and for the annuals.

Bulbs give the town gardener, whether he is planting on a roof or in a park, the most splendid chances of success, for, like the people at combination picnics, they come provided with so much of their own food. Sunshine and air of far more favoured places have gone to make them what they are, magic store-houses of scent and colour, densely packed and hidden away; but a very simple charm betrays the treasure, their "Open sesame!" is the first spring shower and ray of sun. How gay and merry looks the crowd! Besides the *Crocuses* and *Snowdrops* and *Tulips* and *Daffodils*, dancers in white and yellow and scarlet, there are *Scillas*, *Anemones*, *Winter Aconites*, *Muscari*, and the early *Irises*.

What is to be done with the bulbs after they have done flowering? Well, it is almost too much to expect them to bloom a second year; we had better give them away to be planted in some wild garden in the country, where they will recover themselves eventually.

Roof gardening is sometimes usefully employed in making screens at the back of town houses to hide unsightly buildings. Such a screen was very successful on a roof belonging to a house in Belgrave Square. Very often *Ivy* is the only thing that can be grown, for want of sunlight, but now and again it happens that some leads are very hot and much exposed to the sun. In a case of this sort, a very beautiful screen has been made of *Tropeolum Fireball* and *Salvia splendens nana*. The colours of these two plants are very similar, but their methods of growth quite different, so they go together perfectly and look brilliant. So placed, they naturally require a good deal of feeding and mulching.

But flowers are not the only things that grow on roofs, one hears of enterprising people who also cultivate vegetables between the leads and sky. In one instance the vegetable was the *Tomato*. They were grown by a gardener who utilised the flat roof of a kitchen that was built up to the gable end of a house, and faced south. A long box was fixed against the gable wall to hold the plants, which were trained up it on single stems and much enjoyed their sheltered corner. The proprietor of this roof garden had to carry soil, plants, stakes, water, in fact, all his gardening paraphernalia, up a ladder, so he richly deserved the success that crowned his labours.

In another case the roof-grown vegetable was the *Potato*. Its successful cultivator is a gentleman who lives near Regent's Park, and is very fortunate with his flowers, but is still prouder of his *Potatoes*, and well he may be, for I do not know of any other roof gardener who can boast of a *Potato-patch*. But "patch" is hardly the right word for a *Potato-garden* on the lead roof of a porch 10 feet by 10 feet, where everything is grown in wine-boxes or pots. *Tarragon*, *Chervil*, and *Radishes* are also cultivated, the latter for the sake of the seed-pods, not the roots.

Sometimes, even in the country, roofs are convenient for flower growing. In my own windy garden the sloped roof of a sheltered outhouse was chosen about sixty years ago by some benevolent ladies as the most favourable spot for growing *House-Leeks*. They were wanted to provide the poor folk round about with healing juices. The *Leeks* (no longer medically used) still thrive and spread along the old red tiles, and with some *Stone-crops*

we have added, and sundry Dandelions that have added themselves, make a roof garden that is not without its charm, and is so hardy that it would flourish anywhere, even in a smoky town. F. A. B.

## THE FERN GARDEN.

### ACROSTICHUMS.

**T**HIS genus consists of a number of widely distinct and beautiful species. Several of them are perhaps better known under other generic names. In Hooker's "Species Filicum" 132 species are described, and in Schneider's "Book of Choice Ferns" upwards of 250 species and varieties; but of these many are little known, and some not even in cultivation at the present time. At a meeting of the Royal Horticultural Society some time ago Messrs. Hill and Son of Edmonton exhibited a large group, consisting chiefly of the most useful Acrostichums. In regard to their cultural requirements and habits they vary almost as much as they do in growth. They are nearly all stove Ferns, and many of them delight in a very moist, shady position, with plenty of moisture at the roots. With good drainage there will be little danger of over-watering. The following are among the most desirable for a limited collection:

*Acrostichum aureum*.—Erect growing, with thick pinnate fronds of a peculiar soft green shade. It comes freely from spores and grows rapidly. When fully developed the fronds attain to fully 4 feet in length. This species has thick fleshy roots, and succeeds best in a loamy compost.

*A. drynarioides*.—A distinct Fern, with broad pinnatifid fronds of a peculiar rigid texture, produced from a thick rhizome. It should be potted in a rough open compost, with which may be mixed some charcoal and sphagnum moss, and the pots should be nearly half full of crocks.

*A. osmundaceum*.—This has large spreading fronds of a bright texture. The barren fronds closely resemble those of *Polystichum coriaceum*, but when fertile the upper pinnae are contracted and covered with sporangia as in the *Osmundas*.

*A. scandens* (more generally known as *Stenochlæna scandens*).—A beautiful Fern with large pinnate fronds, produced on slender spreading rhizomes. When planted out the rhizomes soon spread a great distance or will cling to a damp wall. It also makes a fine plant when grown in a suspended basket. It will grow freely in almost any ordinary compost.

*A. crinitum*, better known as *Hymenodium crinitum*, and sometimes called the Elephant's-ear Fern, is very distinct, having broad fronds covered on the surface with large dark hairs or scales; the short thick stem is also covered with these almost black hairs. This is a most desirable Fern for a collection, but is hardly suitable for ordinary decorations. This succeeds best with a good proportion of peat in the compost.

*A. Caenopteris*.—This has long, rather narrow pinnate fronds on slender rhizomes, which spread freely. It should be grown on a small tree trunk, about a 3-foot length fixed in a pot, and covered with sphagnum moss. With a little attention to fixing the rhizomes as they spread they soon cover the stem, and make a pretty effect in the Fernery.

*A. viscosum*.—This is a neat-growing species, with rather long, narrow, drooping, simple, undivided fronds. These are covered with a brownish woolly down, and are produced from a very short prostrate stem or rhizome. *A. tomentosum* is another of similar habit with larger fronds.

*A. muscosum*.—This also is of similar growth. It forms a close mass of narrow fronds of a thick leathery texture and covered with tomentum. These may be grown in a rough peaty compost, and the plants may be divided before they get too thick.

*A. pellatum*.—This is an interesting and pretty little Fern, quite a contrast to any of the foregoing. The tiny fronds are produced on slender

creeping rhizomes, the barren ones are finely cut into narrow segments, and the fertile fronds are entire and nearly round. They vary in shape, being sometimes two-lobed. This should be potted in a compost consisting of peat, a little loam, sphagnum, sand, and charcoal, and should have a warm moist position. In a suitable position it grows freely, but failure often occurs through neglect in watering.

*A. quercifolium* is another small-growing species, and, as its name implies, the fronds somewhat resemble Oak leaves. The fertile ones are much contracted, and have longer stalks (or stipes). This comes freely from spores, and several plants may be grown together in shallow pots.

A. HEMSLEY.

## FUCHSIAS INDOORS AND OUTDOORS.

**F**OR general decoration few plants rival the Fuchsia, which of late years has been greatly improved, the flowers of the single ones being very elegant and beautiful, with their long tubes, regularly reflexed sepals, and distended corollas of such rich colours. It is a question whether the double kinds should be encouraged, and yet they have their admirers, lumpy and heavy though some of them be, which shows that the doubling has been carried too far or quite far enough in their case. The way to set about crossing the different sorts is to select those having the best properties, such as habit, freedom of growth, and flowering, and with the most regularly formed flowers and distinct colours, as in all Nature like begets like, and in breeding anyone may get almost what he aims at, the results of a cross being generally something intermediate between the two parents, a portion of the seedlings partaking more of the character of the one than the other, according to whether it supplied the pollen or seed.

Having determined which to breed from, and made choice of plants, they should be stood in a light, airy house where they are handy and easy to get at, as every day the flowers will need watching, and those intended for seed-bearers must have their anthers snipped off directly the blossoms unfold, or the pollen will ripen and drop on the stigma, and self-fertilisation, of course, follow. The stigma will quickly show when it is ready to receive the foreign pollen by having a glutinous or viscid substance exuding from it, to which the pollen adheres if the part be touched with it, and that is an easy matter to perform, as the whole flower of the kind to be crossed with it may be held between the finger and thumb and the anthers rubbed gently against the stigma, which done, the work is complete. In a day or two after, if impregnation has taken place, the base of the flower where the ovary is situated will begin to swell and go on increasing till it becomes quite large; soon after which the pod will change colour, from green to plum or violet-blue, and quickly ripen. As soon as the pods reach this stage they should be gathered and placed in a paper bag and laid in some dry, warm position, when in a week or so they will be fit for sowing or storing till the following spring. Fuchsia seed can also be purchased of any of the chief nurserymen, and where one does not particularly desire to possess named kinds it is a good plan to raise Fuchsias by obtaining seed, especially where many are wanted for bedding or planting out, a purpose for which Fuchsias are not half as much used as their merits deserve.

### RAISING FUCHSIAS.

The way to raise them is to prepare a pot or pan by draining and then filling nearly full with fine sandy soil, on which the seed should be sown and then covered to the depth of a quarter of an inch, gently watered, and after that a pane of glass laid over the top. To get the seed to germinate freely, a warm house or frame is necessary, and when the plants are up and large enough to handle they should be pricked off in light rich soil and moved on

in a warm pit or frame where they are not exposed to the sun, as the direct solar rays cause the shoots to become hard and woody. If Fuchsias are to be grown from cuttings, and good big plants are required, the propagation should be effected early in the autumn by taking any nice soft young shoots, as free from flower as they can be obtained, inserting them in sharp sandy soil, and keeping them close and moist under a hand-light. If attended to and gently syringed or bedewed daily they will soon strike, and when rooted should be potted singly into small pots, and then stood in a frame where they can be shut up early in the afternoon to give them a start. During the winter they must be kept gently moving by standing them in a temperature of between 40° and 50°, and in spring should have an increase of 5° or 10°, or be stood in some vinery or Peach house at work. As soon as the plants begin to grow freely it will be necessary to decide in what form they are to be trained, whether as bushes, pyramids, or standards, as in the last case they must have side shoots stopped close and be run up to the desired height with clean stems; but in stopping the main leaves should not be taken off, as the loss of so much foliage weakens the plants. To get nice symmetrical heads, all the shoots when they attain a length of 6 inches or so should have the points pinched out, and the same again till the plants get properly furnished. In starting with pyramids all side branches must be encouraged, and the leading shoot tied loosely and trained up a stake, but it is necessary to nip the head out after a plant gets from 1 foot to 18 inches high, or side shoots will not form. These will need stopping occasionally, and a fresh leader must be run up and again stopped, and any requisite thinning done, so as to have the plant perfectly balanced and regular all round, and the same from base to summit, this forming a handsome specimen when the plant gets into bloom, and that without stakes or sticks, except just in the centres, as they are quite unnecessary in the training of Fuchsias. Bush plants are easy enough to grow and form, but they are not very desirable, as they do not show off their flowers so well as those of the shapes referred to, unless they are elevated and brought more on a level with the eye by standing them on pedestals or suspending them in baskets. In cases where there are lofty conservatories or greenhouses to furnish, the latter is a good way of using Fuchsias, as in baskets they are very telling, especially those of a drooping or pendulous habit, of which there are many varieties, and they make a capital show. Others, again, are well adapted for growing as climbers up pillars or under rafters, and when so used they produce a most striking effect in a house.

### FUCHSIAS IN THE SUMMER GARDEN.

Of late years Fuchsias have been employed for bedding or planting out, and they make grand ornaments, either alone or in groups, and have been much admired in the parks and private gardens during the last season or two. When required for outdoor decoration it is necessary to keep the old plants from year to year, which is a very easy matter, as they may be wintered in any shed or cellar that frost does not reach, but as they are woody they must not be kept too dry at the root, the proper thing being to have the soil just moist, and then the main stems and branches will keep plump and live. Specimens for exhibition or other purposes must be kept in the same way if wanted early, as there is not time to grow them to a large size and flower them before the autumn, but by saving old plants they may be had in full beauty by June or July. The way to manage them is to start them soon after the turn of the year by standing them in some vinery at work or other house where there is a little heat, to which they soon respond and break if kept moist by syringing, but little or no water should be given till they get into leaf. As soon as the young shoots can be seen or the buds burst, any thinning out that is requisite should be done and the side shoots shortened back to about half their length, after which the plants, if to be grown in pots, will need to have the balls reduced and then be potted again in fresh soil. That most suitable for Fuchsias is a good

friable loam, rather new than not, and mixed with a little leaf-mould and well-rotted manure, to which a dash of sand should be added to keep the whole porous. After being potted in this mixture the plants will have to be kept close and warm for a time to give them a start, and only watered very sparingly till growth is quite free. Shade favours this, but shading must not be carried too far or the shoots will be long, pointed, and drawn. As soon as the pots have become well filled with roots, liquid manure, if applied weak, may be given whenever the plants need water, and daily syringings are a great help in keeping them healthy and clean. The only insects that are at all troublesome to Fuchsias are green fly, and the safest remedy is to fumigate with tobacco, giving a mild dose overnight, repeating the same again in the morning. S.

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

### HYBRID ONCO-REGELIA IRISES FROM MR. C. G. VAN TUBERGEN, JUN.

Fuller descriptions of the beautiful hybrid Irises shown by Mr. Tubergen of Haarlem, Holland, before the Royal Horticultural Society will be given than is possible in these notes. We are again reminded of this hybridist's remarkable success by a boxful of buds of the hybrids shown on the 17th inst. These have opened out and disclosed the beautiful veining and colouring which excited so much admiration at the crowded meeting referred to.

### RHODODENDRONS DUCHESS OF PORTLAND AND N. N. SHERWOOD.

Messrs. Fisher, Son, and Sibray, The Royal Nurseries, Handsworth, Sheffield, send two beautiful Rhododendrons, which are quite distinct, and very welcome at this season. One is named Duchess of Portland; it has received an award of merit from the Royal Horticultural Society, and we remember the shrub when shown, a dense bush of fine foliage almost hidden beneath a snowy burden



BURFORD, DORSET, THE RESIDENCE OF SIR TREVOR LAWRENCE, BART.

of flowers, pure white, somewhat bell-shaped, and crowded in trusses of immense size. It is one of the finest Rhododendrons raised of recent years. A novelty is the variety N. N. Sherwood, for which there is a great future; the truss is large, but with no trace of coarseness, the flowers campanulate, and a fresh bright pink in colour, a pure and charming shade, which stands out clearly against the handsome foliage. These Rhododendrons are quite hardy. They have their value in the open garden and in pots for the greenhouse and conservatory.

### CINERARIA STELLATA.

Mr. George Merry, The Ashe Gardens, Etwell, Derby, sends a very beautiful selection of Cineraria stellata, with the accompanying note: "For the conservatory and room decoration, as a companion plant to the large-flowering Cineraria, there is none which makes a more telling effect with its graceful, branching growth and long, strong, slender branches of small flowers of many shades of colour than C. stellata. The flowers are most useful for large or small vases, and I find that they will last a long time in a cool room in water when cut. The plants are most useful for room decoration. As to culture, I sow the seed and grow them on in cold frames in the same way as the large-flowered Cineraria."

### HERBACEOUS CALCEOLARIAS.

Mr. George Merry, The Ashe Gardens, Etwell, Derby, sends a series of Calceolaria flowers of rich markings and large size, with the following note: "As a flowering plant for the conservatory, to follow after the Cinerarias, what is more useful, in cold frames in a shady position during the summer months, than the Calceolaria, with its beautiful self colours and spotted and blotched flowers. I sow the seed in shallow pans the second week in June, in good turfy loam, leaf-mould, and rotten manure, with silver sand, and place the pans in a cold frame in a shady position, with a piece of glass on each till the small plants can be seen. As soon as large enough I prick them out into pans till large enough for small pots, and pot them on finally into 8-inch pots in October, and place each pot on

a 6-inch pot turned upside down in frames. In frosty weather cover the glass with mats; if very severe with litter also. As the flower-stems grow up place the plants in a cold vinery or other cool house or pit, always keeping cool with plenty of air. Excellent plants can be grown in 6-inch and 7-inch pots."

### LILAC.

From Swanmore Park Gardens, Bishop's Waltham, Mr. E. Molyneux sends flowering shoots of some beautiful varieties of Lilac. One of the most remarkable is Congo, with very large inflorescence of deep purple flowers; Charles X. is well represented; and Marie Legraye is very beautiful, the large bunches of pure white blooms being very fine.

Mme. Kreutzer, purple; Belle de Nancy, lilac, double (the inflorescences of both varieties rather small); Mme. Casimir-Perier, white; Alphonse Lavallée, and President Carnot, with very large inflorescences of pale lilac double flowers, were other varieties of more than ordinary merit among these favourite garden flowers. During recent years new and much improved varieties of Lilac have been introduced, and the selection sent by Mr. Molyneux is most representative.

### TULIPS FROM SURBITON.

A very large and interesting collection of late Tulips—Gesner's, cottage, and Darwin forms—comes from Messrs. Barr and Sons of Surbiton. As the majority of these were described in THE GARDEN of last week in a note about the masses of Tulips in flower there a few days ago, further notes are unnecessary.

### SEEDLING AZALEAS.

We are reminded of the wonderful display now made by the Azaleas at Mr. Anthony Waterer's Koap Hill Nursery, Woking, by the receipt of a boxful of flowering shoots. They are in a bewildering variety of colours—rich yellow, old gold, bronze, white, many shades of red, pink, and intermediate tints impossible to describe. All these flowers were cut from unnamed seedling plants (Knap Hill strain), and it is easy to imagine from the sprays sent that the show of colour must now be quite remarkable. Mr. Waterer also sends flowering shoots of Magnolia Fraseri (auriculata), with creamy yellow flowers borne singly at the ends of the shoots, and large, light green leaves.

### TULIPS FROM IRELAND.

From Ard Cairn Bulb Grounds, Cork, Mr. W. Baylor Hartland sends a delightful gathering of cottage Tulips, remarkable alike for their beautiful form, dainty colouring, and, in some cases, fragrant perfume. Among them are gesneriana lutea; ixioides, primrose colour; fulgens lutea Mrs. Moon; Othello, deep scarlet; lutea pallida, sweetly scented; John Ruskin, blush, with yellow margin; The Fawn; globosa grandiflora, scarlet;

annerette, pale yellow, with scarlet markings; and Bishop's Mitre, golden-yellow, with scarlet edge.

FLOWERS FROM MR. GREENWOOD PIM.

Mr. Greenwood Pim sends from Dublin the following flowers and notes: "I am sending you a few flowers for your table.

"*Rhodotypos kerrioides*.—A pretty shrub, somewhat like a Syringa, though much more nearly related to the common Kerria often found on cottage walls, usually in the double form.

"*Tulipa persica*.—Forms a lovely clump of golden stars about 4 inches high, and is quite at home on a dry, sunny rockery. It is a native of Persia, and has been many years in cultivation, though very seldom seen.

"*Dimorphotheca Echlonis*.—This is a very pretty greenhouse perennial, with Daisy-like flowers, greyish blue outside and pure white within. The disc is deep purplish blue, occasionally powdered with bright yellow pollen. It strikes freely from cuttings.

"*Veronica lebaudiana*.—A neat little sub-shrubby Veronica, with small, round, dark leaves, the whole plant not measuring more than 6 inches to 8 inches in height. It is covered in May with racemes of small white flowers, which are so closely packed as to seem quite double. It is easily propagated from cuttings, and in this climate at least is quite hardy.

"*Sparaxis pulcherrima*.—I also enclose a few flowers of this Sparaxis, which include the most dazzling shades, varying from scarlet to velvety black, as well as other less showy colours. They and their cousins the Ixias do well on a dry, hot border thoroughly drained, without any attention, and if at times they disappear they can be replaced for a couple of shillings per hundred, and make a grand show for the money."

BURFORD, DORKING.

THE home of the President of the Royal Horticultural Society possesses a certain interest to horticulturists, for the good reason that the man who occupies that position must have no ordinary love for flowers and a deep interest in horticulture generally. Burford nestles under the famous Box Hill, where shrub and tree add their note of colour on the steep chalky sides. Here George Meredith is a welcome guest, resting and thinking under the shade of leafy trees, and enjoying in the full summer-tide the glowing colours of Marliac's Water Lilies. Burford, to the horticulturist, is perhaps more famous for its Orchids than for its trees and summer garden. Sir Trevor Lawrence possesses one of the largest and most interesting collections of Orchids in Britain, and

many beautiful hybrids have been raised in the extensive range of houses. Those who enjoy the quiet and strange beauty of the species of Orchids will find a rich feast at Burford. To describe these in detail would require more space than is at present at our disposal.

THE AURICULA.—JUNE.

THE important operation of repotting will have been done by those who adopt the principle of early potting. The greatest care must be taken against over-watering, for the roots will not take hold of the fresh soil if waterlogged. Provided it was in proper condition when used very little water will be required—a sprinkle overhead now and then will prevent flagging—as the plants have been closed up in frames or hand-lights for a fortnight or so, and not until the plants almost ask for it must anything like a copious watering be given. Advantage may be taken of a slight shower, which will refresh and assist in starting new growth of both foliage and rootlets. Seedlings must be potted on as fast as possible so long as they keep growing, and as soon as any of their young roots touch the sides of the pots give them no rest. Keep them on the move by potting on, for it is a natural desire to bring seedlings to the flowering stage as quickly as possible and make room for another batch. Any plants set aside as seed-bearers should be exposed to the full sun and all kinds of weather. This rough treatment is conducive to the production of seed, even if it may do some injury to the plant, for where seed is desired this risk must be run. A sharp look-out must be kept for green fly, which can be removed by a camel's-hair pencil, or, in the case of large collections, by fumigating with XL All Vaporising Liquid, care being taken not to injure the foliage by too strong an application of this remedy. Every attention must be paid to shading the plants through the summer months, never forgetting to give abundance of air.

W. SMITH.

THE ROSE GARDEN.

ROSE-COVERED PORCHES.

HOW is it that plants are often seen flourishing in cottage gardens with a luxuriance which seems unattainable in those where all conditions appear to be so much more favourable? The great masses of Hepaticas, for instance, in the cottagers' gardens in some of the western shires are unsurpassed, while the clumps (sometimes almost forests) of Madonna Lilies are the envy of passers-by, and the climbers by which the cottage is often half hidden seem to grow with more freedom than anywhere else. Perhaps the reason may not be further to seek than in the employment of materials well suited to the climate and conditions, for there is no doubt that common plants well grown are more decorative than half-starved specimens of more brilliant things, for whose proper cultivation the requisite means are not attainable; and a cottage porch smothered with Honeysuckles and some old-fashioned Rose is about as pleasant a sight as can be seen, in spite of the climbers being neither rare nor costly. But the supposition that the denizens of cottage gardens are so fine because they are indigenous or exceptionally hardy plants is not sufficient to account for the handsome subjects there so often met with; the finest Catherine Mermet I ever saw was climbing on the chimney of a cottage by the roadside in Surrey, and in a similar position in another part of the same county I have seen blooms of Gloire de Dijon such as I have never seen elsewhere, even in celebrated Rose gardens. Every reader will doubtless recall Dean Reynolds Hole's description of the noble specimens upon the walls of a cottage of the glorious, but hardly-to-be-flowered, Noisette Cloth of Gold, which so rarely gets sun enough to ripen its shoots in this climate, and even more rarely succeeds in preserving them uninjured until the flowering time. I myself have experienced the pangs of jealousy when passing a house masked with a climbing *Devoniensis* in full bloom, the cultural attention to which consisted in its being occasionally gone over with a long-handled hill-hook, such as is used in trimming hedges, "just to keep the shoots from rattlin' on the windows."

In spite of these seemingly anomalous instances, however, the real reason of the presence of striking specimens in cottage gardens will probably be found in the fact that each plant is tended and looked after with the greatest care; the precious and carefully collected road-scrapings, not having to be spread over a wide area, are put round special favourites to provide at once food and protection and thus is encouraged that luxuriance of growth which renders possible the Rose-covered porches of our Surrey cottages, whereby a pleasant feast of brightness is afforded to travellers passing by.

T. W.



EPIDENDRUM STAMFORDIANUM IN BURFORD GARDENS

## ROSE MME. N. LEVAVASSEUR.

THIS Rose is an acquisition to the varieties for massing or pots. I wish the colour was as brilliant as in *Crimson Rambler*, it is even not quite so bright as *Perle des Rouges*, but the trusses of bloom are larger, and doubtless, in the mass, the effect will be more glowing. It may be that we shall yet obtain a scarlet-flowering dwarf form of the perpetual *Polyanthas*, but until then the Rose under notice is a good substitute. That it is a cross with *Crimson Rambler* is seen immediately in the pale green foliage. The individual flower is smaller than that of *Perle des Rouges*. Of course, it is no trouble to get dwarf flowering plants of *Crimson Rambler*. They strike freely from cuttings under glass, and a little judicious pinching during summer, and thorough ripening of the wood, will bring them into a flowering condition, when, as table plants, they are really most serviceable. Dorothy Perkins, too, also *Leuchstern*, and most of the multiflora ramblers, as well as *Polyantha* and *wichuraianas* may be flowered as quite dwarf plants, and all who have great calls for decorative plants should make provision for some of these Roses during the coming summer. Some of the delightful *wichuraianas*, such as *Alberic Barbier*, make drooping pot plants if pruned back to about 3 feet from the top of the pot and gradually brought into a bushy form. I am persuaded there is no limit to their usefulness as decorative plants. P.

## ROUND ABOUT A GARDEN.

## "GOOD RAIN."

THERE is a good deal of human nature in a gardener. Like the tourists who were going against the trade winds and prayed for favourable weather, although the whole commerce of the world was going the other way; so our gardener spares little thought for the drenched crowds of Whitsun holiday makers, but congratulates himself upon the "good rain" that has fallen upon his little plot. And, barring the serious inconvenience and disappointment to some odd millions of one's fellowmen, it certainly was a good rain. Things jumped forward all over the garden, as if they had been previously held back by some invisible spring which the rain had loosed.

## UNEQUAL MARCHING.

If everything profited equally by the welcome moisture after a week of dry weather, how easy it would be to keep a perennial border always trim and orderly. But there was never a batch of newly-caught recruits that marched with more uneven step than the picked battalion of your garden favourites after rain. Oriental Poppies, placed far enough apart, as you thought, to mark conspicuous intervals in your array of flowers with their great scarlet flags, are now reaching their great hairy-fingered leaves to each other over the suffering heads of half a score of daintier plants, which, unless you adopt stern discipline with the Poppies, will not be seen again until summer is fairly past, and will be poor things then.

## A SPLENDID SAVAGE.

Some people can deny themselves the Oriental Poppy on account of this smothering habit, but there is no other flower that strikes the same keynote of barbaric splendour. It was a blind man who shrewdly said that mention of scarlet—which he had never seen, of course—reminded him of the sound of a trumpet; and in the same way the blaze of the Oriental Poppy suggests in the scale of colour music such clashing of brass as would fitly herald the entry of some pagan summer god into our Christian gardens. It is rugged, savage, and

magnificent without peer among our hardy plants, and to expel it for observing no duty towards its neighbours is to expect too much, and at the same time to deprive your garden of something which no cunning grouping of other blooms can restore.

## TAKING CORRECTION KINDLY.

It is easy to become a slave to your garden, forgetting to recognise your own right to disregard the rules which you have made for the orderly conduct of your flower-beds; while one of the best features of riotous plants like the Oriental Poppy is, that they take subsequent correction kindly. If you let them romp at large at first for the sake of their massed brilliance of bloom in season, you can cut them level with the ground immediately afterwards, and make "other arrangements" to conceal the bare place which they occupied, without apparently interfering in any way with their luxuriance next summer. Sometimes, indeed, they will seem to attempt to heap coals upon your head by producing a second crop of flowers in autumn in return for your harsh treatment.

## GOOD FLOWERS MAKE BAD WEEDS.

Indeed, all things considered, it is lucky that the Oriental Poppy is not a weed of cultivation in Britain. Its weaker relatives, springing annually from seed in our cornfields, are nuisance enough, and one hardly knows what the farmer would do with so stubborn a "weed," expanding from year to year in more masterful clumps, thriving upon ill-treatment, and growing apparently from any scrap of broken root left by accident in the ground. Then no doubt we should think as little of the Oriental Poppy, as a garden flower, as we do now of yellow Furze or Broom, Dog Rose or Crab Apple, each in its way as beautiful as the majority of our garden shrubs, but all neglected because they are common British things.

## THE SPARROW'S MERITS AND DEMERITS.

Circumstances always considerably alter such cases, and it is not the prophet only who lacks honour in his own country. An English lady in India, who had taken little stock of birds at home, called her husband one morning into the bungalow verandah to see "two such pretty little birds"; and they were sparrows! Sometimes, indeed, even in England one is compelled to admit that the cock sparrow is a remarkably handsome bird. You cannot realise this within range of City soot, which makes even the Thames swans look grubby, but in the clean country the sparrow, with his tasteful harmonies of chestnut and auburn, black, white, and pearly grey, often compels admiration. As, however, his best hues and most elaborate antics to display them are peculiar to the breeding season, when he is also as a rule engaged in devastating your flower-beds, one admires him very grudgingly. Reluctantly, too, one admits that at this season he has merits as a grub destroyer on behalf of the hungry youngsters crowded into his untidy nest, when one catches glimpses of the materials of which that nest is composed. Of seven nests, pulled down from a long verandah where the presence of sparrow families is not desired, there is not one without its faded sprays of double Arabis, white Saxifrage, and other flowers, which, for some reason, the sparrows select as suitable nest material. It is probably for the same purpose that these feathered brown imps tug at the Primroses and nip the Crocuses in earlier spring, being misled by the yellow colour to expect that the blooms will be of straw-like texture.

## THE GREENFINCH'S MISCHIEF.

It is not the sparrow, however, who works most mischief with the Primroses, except where these are grown in open flower-beds. Often, where Primroses have commenced to bloom abundantly under natural conditions in shrubbery or coppice, one is annoyed to find that practically every blossom has been neatly nipped off a number of plants and thrown upon the ground; and the mischief will go on until, in a coppice where you ought to be able to get a wheelbarrowful of Primroses if you wanted them, you will not find it easy to gather a single flower. The method of this destruction is so different from the untidy work of the sparrow, and sparrows are so reluctant to trust themselves upon the ground among bushes and undergrowth where enemies might lurk, that some other culprit is manifestly to blame. But it is not always easy to catch the cunning greenfinch red-handed, or rather Primrose-billed. One day, however, you may do so, and will be surprised at the methodical rapidity with which he and his friends nip off the blossoms and cast them aside, taking only the tiniest bit out of the bottom of the embryo seed-vessel. As it would take many hundreds of these atoms of food to make a square meal for a greenfinch, and the birds seem always to stay so long as appetite lasts, one can understand why the destruction is carried out on such a wholesale scale. E. K. R.

## ORCHIDS.

## SOME HARDY CYPRIPEDIUMS.

OF hardy *Cypripediums* the most satisfactory for general culture is *C. spectabile*, the Moccasin flower; and it is also very attractive, the white sepals and petals and large, inflated, rich rose-coloured pouch combining to make a quaintly charming flower. *C. spectabile* may be grown without difficulty in moist, peaty soil and shaded position. If the plants do well they will develop into quite large clumps, and when in flower make a display that, for interest as well as attractiveness, would be hard to beat. Instances have been recorded of *C. spectabile* throwing up spikes nearly 3 feet high, and bearing flowers 3 inches across. The hardy *Cypripediums* generally like a soil that is composed of about equal parts of rough fibrous peat, leaf-mould, and loam, adding to these a little gravel or limestone grit. Give the plants a semi-shaded position, so that the soil in which they are growing never becomes dried up.

*C. acule* (now called *C. humile*) may also be said to be of fairly easy culture. It does well when planted in moist positions in the rock garden or semi-wild garden. The sepals and petals are whitish, and the pouch is bright rose, veined with crimson. *C. occidentale*, too, is not difficult to grow; the sepals and petals of this species are maroon-brown; the lip is white, and marked with streaks and spots of red. *C. Calceolus*, the British species; *C. macranthum*, with large, handsome, rosy pink flowers, streaked with red and white; *C. pubescens*, with pale yellow lip, narrow petals pale yellow streaked and spotted with brown; and *C. parvifolium*, sepals and petals narrow, shining brown lined with deep purple, the lip large, drooping, lemon-yellow spotted with red. Some of these hardy *Cypripediums* are admirably suited to culture in pots and pans in a cold house, as may be seen in the alpine house at Kew. Several pans are filled with *C. acule*, *C. macranthum*, and others, and very beautiful they are now. A. P. H.

## WORK FOR THE WEEK.

## CELOGYNE PANDURATA.

THIS is rather a difficult plant to manage, yet from time to time fine specimens are seen, thus

proving that it is not impossible to cultivate it in this country. When this charming species is well grown and flowered its fascinating beauty amply repays all the trouble and time given it. The new growths are now starting away, offering the most favourable season to repot or renovate the surface material. Use a compost of two parts coarse fibrous peat, two parts chopped sphagnum, and one part leaf-soil, mixed together with some coarse sand and small crocks. In potting enough room should be left to allow of a top-dressing of sphagnum moss. The choice of a receptacle is rather difficult on account of the long rhizomes. I favour cutting away the back part to allow the plant being grown in a pan in preference to retaining the back part and growing it on a raft. In repotting keep the base of the plant close to the side of the pan to allow the growths room to develop without overgrowing the pan for at least two seasons. A shady position in the stove Orchid house should be given it, watering carefully till the growth has half-developed. From then till its completion it will require copious supplies, when the supply may be again reduced, and during the winter months only give enough to prevent the plant from shrivelling.

**DENDROBIUM PHALENOPSIS SCHRÖDERIANUM.**

This useful Orchid is now well starting into growth, and when the young leads are about 3 inches high is the best time to repot if it is necessary. Use a compost of equal parts fibrous peat and chopped sphagnum. Three bulbs are ample behind the lead. The old bulbs that are cut away may be laid under the stage, and new growths will often start away from them, which will in a comparatively short time make the finest plants.

I prefer pots that are provided with holes for suspending. A liberal drainage should be afforded of chopped rhizomes, and potting should be done rather firmly, keeping the compost low enough to allow of a top-dressing of sphagnum. No better house can be given these than the Croton house, providing they are so placed that the strongest direct sunshine does not reach them. Water should be sparingly applied till the growths show signs of lengthening out; then, if the conditions are favourable and a high temperature can be maintained, water should be freely given. Those living near large towns, or in districts where fogs are prevalent during the early winter, should use every device to hasten growth, so that the flowers may be produced earlier in their season, when less risk would be run of having the flower ruined by fog.

**DENDROBIUM BIGIBBUM, D. STATTERIANUM, AND D. SUPERBIENS**

may all be treated in the same way. When this section of Dendrobiums is well grown and arranged with the foregoing they present one of the most gorgeous shows it is possible to have. They also have a great advantage over most other Dendrobiums on account of the long stems making them so useful for table or other decoration.

W. P. BOUND.

Gatton Park Gardens, Reigate.

**THE KITCHEN GARDEN.**

**UNPROFITABLE VEGETABLE MARROWS.**

**F**OR some years the Vegetable Marrow has not been grown to the best advantage. This occurs frequently in a few private places, and failure may be traced to overfeeding; they have a rich root run, with the result that a wealth of foliage and few fruits are produced. The Marrow, when given field culture in market gardens, gets very different treatment, but even then I do not think the best results are always secured. Amateurs can grow this plant to advantage, cutting the fruits in a smaller state. Many think that by doing so there is a loss, but this is not so, as the longer the fruits are left seeds are being formed, and when this is the case they soon begin to show fewer fruits and become unprofitable. Few vegetables are more

delicious than the Marrow when cooked whole before the seeds begin to swell, or even form; but cut when the size of a cricket ball or a little larger the fruits are much nicer.

I have referred to growing the plants with a rich root run. How often the plants occupy an old bed of decayed or even fresh manure, and not always in the best possible position. I am aware at times the Marrow is useful for covering up unsightly places, but then it cannot be grown to the best advantage. I recently saw an enthusiastic amateur who told me he had just procured a good load of decayed manure for two Marrow plants. Last year he had two enormous fruits. Excess of food at the root is the cause in wet seasons of the fruits turning yellow in a small state, whilst the plant is making long, trailing growth with very few fruits. I do not advise starving, but what one would call fair treatment. Stop closely if necessary, and avoid crowding. Another point often lost sight of is that a sturdy plant at the start is far preferable to one drawn and given much heat. Of course, timely shelter is well repaid, but far better results follow if there is no coddling. These plants do well grown on the flat in an open sunny position, and given a little food at the start. If at the planting a few spadefuls of soil are taken out, the space filled in with good food, and the soil replaced, thus making a small mound, the plants do much better than when given a load of rank manure. It will, therefore, be seen that simple cultural details are best. Later on food given in the shape of liquid manure is well repaid. The fruits should be cut regularly and before they are overgrown.

S. H. B.

**BROCCOLI LATE QUEEN.**

FOR years I have grown most of the late Broccoli with the intention of getting the supply to last until the early Cauliflowers are ready. Most growers of Broccoli will admit that it is erratic in growth; but Late Queen is less influenced by the weather than others, and there will be no difficulty in bridging over the dates between the Broccoli and Cauliflower supply. To be on the safe side one cannot plant all the crop on the same quarter. I find we have a much better supply when the quarters are varied as much as possible, our latest being grown on a north border. The plants are less affected by frost than on a warmer site. I may add doubtless they are hardier and dwarfier than the others. As Late Queen is of very dwarf and compact growth it is less affected by frost than larger varieties. With us it follows Veitch's Model, the last-named being a grand variety to precede it, and not unlike it in hardiness and good quality. For a May supply in the south and later in the north the Late Queen is the most useful vegetable we have; the heads are well protected, the curd is close, and the quality equal to the Cauliflower. But no matter how grown, the heads should be cut in a small state before the curd opens. Sent to table in this way they are more appreciated.

G. WYTHES.

**A NEW RHUBARB.**

THE fruit and vegetable committee of the Royal Horticultural Society had before them on the 3rd inst. a particularly fine exhibit of a new Rhubarb shown by Mr. G. Hobday, a clever and enthusiastic amateur of Havering Road, Romford. The individual stalks were upwards of 3 feet in length, straight, and of wonderful thickness. It received a cultural commendation, which it most worthily deserved, and I understand it received the same award and, in addition, a silver medal the same evening at a meeting of the Amateur Gardeners' Association. The origin of this grand variety was not given. It somewhat resembles Victoria, but is apparently quite distinct and far superior. It was certainly the finest I have ever seen, and one member of the committee stated he had attended the Royal Horticultural Society's meetings for upwards of twenty years and had never before seen anything like it. Mr. Hobday is to be congratulated on producing such a fine novelty, which I trust will be distributed to the public in due course.

E. BECKETT.

**NOTES FROM THE MARKETS.**

**B**EDDING PLANTS are the most important feature in Covent Garden Market at the present time, and the supplies all round are very good. For London work an immediate effect must be produced, and the grower who are careful to bring bedding plants in with expanded flowers secure the best trade and best prices.

*Calceolarias* are very plentiful, and mostly free healthy plants, which should do well. In Verbenas there seems quite a revival, and many are now using these old favourites, but a large portion of those seen in the market are seedlings. The colours of these cannot be depended upon, but the varieties do remarkably well when planted out, and many of the flowers prove quite equal to the old named varieties.

*Lobelia*.—The blue Lobelia is always much used, and those who can get good plants in 4½-inch pots in flower early can always depend upon a good trade for it. This season it seems rather later than usual, but it is now coming in good condition and sells well. It used formerly to be largely grown in small pots, but many now plant out from the store boxes. These have been very plentiful this season. All kinds of seedlings and cuttings in the small store boxes are over plentiful. At one time this trade was very profitable to growers, but it has now come down so much in price, and altogether the supplies are in excess of all demands. At one time prices ranged from 1s. 6d. to 2s. 6d. per box, now the same thing can often be bought at from 6d. to 1s. per box, and it must be something special to make up to 1s. 6d. per box.

*Marguerites*.—The young spring-grown plants are now in from several sources, and there are still a good many of the larger plants from autumn stock. I have seen a few good plants of the yellow variety, but they are scarce and make 18s. per dozen, but we are now getting the *Chrysanthemum segetum*, the single yellow, and also semi-double. These take the place of the yellow Marguerites to a great extent. Yellow *Calceolarias* are plentiful, and the Golden Gem proves much more serviceable than the old favourite *floribunda*.

*Pelargoniums* are now coming from several growers, and some well-flowered plants are seen, but there are many far from being of first quality. Zonals are much better; since the trade for these has so much increased growers have given them better attention, and they are now among the most showy flowering plants seen in the market. The Ivy-leaved varieties are also well done. As a pot plant the variety Galilee has no equal. Baden Powell and Leopard are now seen, but not in quite first-class condition. They should both prove useful, if well finished, as pot plants. Souvenir de Chas. Turner is now very fine, and the variety Mme. Crousse is coming from several growers in very large quantities. Fuchsias are very plentiful in well-flowered plants; in fact, there is now a most plentiful supply of all seasonable subjects.

*Cut Flowers*.—The Iceland Poppies are among the most recent additions to cut flowers. These are now very good. One grower has a remarkably fine strain, the flowers being larger than the ordinary type, and the colours of a peculiarly soft and attractive shade. Sweet Peas are plentiful and very fine from several growers; the whites are most prominent, but we now have the pink and mauve. Prices are not very good, but we may expect to see an improvement. The florists do not seem to care to start with them too soon. Roses continue very good and plentiful. I have never seen the market better supplied than at the present time; and most of them now seen are cut with long stems and good foliage. A few years ago it would have been thought impossible to get such a supply of Roses on long stems. Cutting so much wood may be detrimental to further supplies of blooms from the same plants, but the American

system of flowering young stock, and cutting all the stem possible with new plants for further supplies will be found to pay best. Taking what is now seen in the best florists' shops it is more evident that we must have most flowers on long stems. A. H.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### CABBAGES BOLTING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read with interest Mr. Crook's article in a recent issue of THE GARDEN on the above subject. May I be allowed to express my own views in this matter. I happen to be employed in the Bodorgan Gardens, where the late

Mr. Ellam was head gardener for many years, and who was the raiser of Ellam's Early Cabbage, which Mr. Crook does not seem to favour. From what I have seen of it, it is one of the best Cabbages. Out of a bed of some 1,300 plants here not a single one has bolted. We grow no other, and I should say neither Mr. Crook nor Mr. Bowerman can have the true Ellam's Early. Certainly, when one loses 25 per cent. of a batch of plants it is a serious item. I should like to know if Mr. Crook saves his own seed, as with growing several varieties I should say most certainly he cannot depend on the seed being true. Soils, I believe, have a good deal to do with the bolting of Cabbages, as no two garden soils, I suppose, are alike. It certainly is not drought this year, if our friends in England have experienced the same weather as we in North Wales.

G. S. JORDAN.

Bodorgan Gardens, Anglesey, North Wales.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. J. Crook's testimony in relation to the bolting or non-bolting of certain early Cabbages is in exact accord with the results of the trial of some twenty-six varieties conducted for the Surrey County Council at Egham two years since. Of July and August sowings and later plantings about 5 per cent. of the first and 1 per cent. of the second planting only bolted. We found invariably that the bolters were of coarser growth than were the general body of plants of each stock, the moral being that in taking plants of Cabbages from beds or drills it is wise to reject any that bear an appearance of extra strength, as these may prove to be untrue, or, as we term them, "rogues." That there are varieties quite unfit for autumn sowing, because of their annual heredity, there can be no doubt, and they should be avoided, whilst, all the same, they do well and carry excellent hearts if sown in the spring. Happily, we hear few complaints as to bolting Cabbages now, doubtless because the peculiarities of certain varieties are better understood. A. D.

### MADRESFIELD COURT VINE A FAILURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Will you kindly give me an answer in THE GARDEN to the following question: In which way is it best to grow Madresfield Court Vine? On its own roots or grafted on one of the following three varieties, Black Hamburg, Foster's Seedling, or Gros Colmar. I have no other sorts. Ten or twelve years ago I planted a vinery with Black Hamburg and Gros Colmar, and among these I also planted four Madresfield Court. These did very well for some four or five years, afterwards they became weaker and weaker (whilst the other two varieties continued to do well), so that I made up my mind

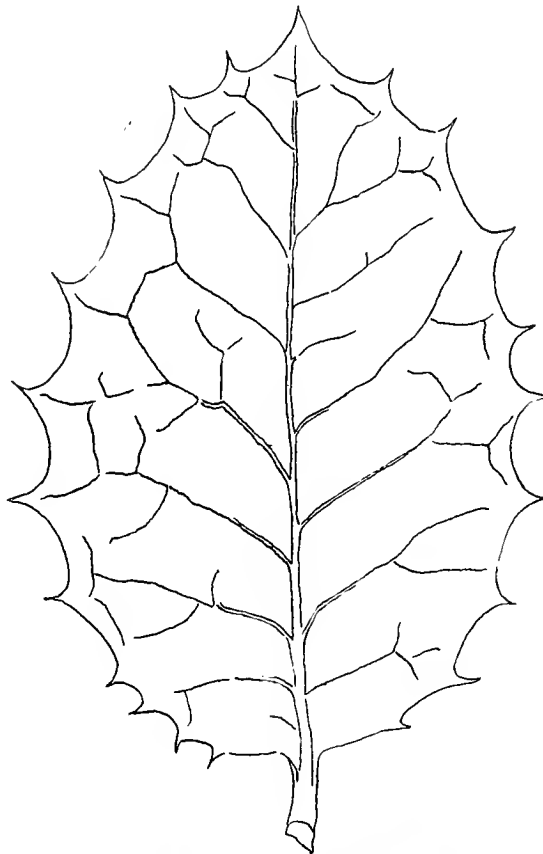
to cut these down and to graft Black Hamburg on them. These Black Hamburg on the roots of Madresfield Court are doing excellently, bearing heavy crops every year. Next year I intend planting another vinery chiefly with Black Hamburg and Foster's White Seedling, and also four canes of Madresfield Court. Now I am at a loss to know how I shall act. Whether I shall plant Black Hamburg and Foster's Seedling only, and afterwards graft Madresfield Court on the young growth of these or to plant Madresfield Court and let it grow on its own roots. When I was in England I saw Madresfield Court on their own roots; they were grand, but these were grown in houses by themselves and may have been specially treated.

St. Petersburg.

R. K.

[The question here asked may have an interest to many others who may be perplexed with a similar difficulty when many varieties of Grapes have to be grown in the same vinery. We hope the question asked by our Russian correspondent may elicit useful information from some of our British

growing this Grape well than in growing any other. This Vine is not of so robust a growth as Black Hamburg for instance, and to produce the best results forcing the Vine or subjecting it to great heat at any time must be avoided. Indeed, this superb Grape succeeds excellently in a vinery without artificial heat; therefore, in planting the four Muscats we would advise our correspondent to plant them at the coolest end of his vinery, and in the summer time, while growth is active, to ventilate freely when the weather is fine, and to leave a little air on all night as well as day, until the fruit is ripe. The variety is most prolific, and the fatal error is made by many of leaving too many bunches for the Vine to mature. This is, perhaps, more often the cause of failure than any other. The number of bunches a healthy, well-established Vine of this variety should carry must be determined by the size and weight of the bunches. Usually the bunches range from 1½ lb. to 3 lb., and these are the most useful sizes, although it is quite possible to have them 5 lb. or more. Six bunches of 3 lb. each, or twelve smaller ones, are the most that should be allowed. As regards planting four Vines of Madresfield Court next year, we should advise our correspondent to act on the suggestion he makes, that is, to plant Black Hamburg and graft Madresfield Court on them. The Hamburg stock is one of the best for any Vine to be worked upon, and as the former has failed on its own roots it may succeed better on the other stock; in any case we are confident it will succeed as well. By taking care not to over-crop the Vine or subject it to too much forcing, we believe our correspondent will yet succeed in growing this excellent Grape as well as he has succeeded in growing the Black Hamburg.—Ed.]



ILEX MUNDYI. (Lea outline reduced.)

## HOLLIES AT HANDSWORTH.

IT may appear a strange season to write of the Hollies. We think of the glossy-leaved shrub—the pride of the English hedgerow, strong, leafy, and ruddy—when the Christmas bells ring out their message through the frosty air; but as this is the season to plant it is more important to think of the Holly now than in winter. When writing of Holly planting our thoughts go back to a September day last year spent in the nurseries of Messrs. Fisher, Son, and Sibray at Handsworth, a few miles outside the city of Sheffield. All Holly lovers are acquainted, or should be, with this beautiful nursery of trees and shrubs, of fruits and flowers, and of plants in general, but we will write now only of the Hollies of this great firm. Here is to be found scattered through the broad acres a collection of species and varieties which are of interest not only from the fine series there represented, but from the fact that here are veterans many feet high and of great width, the parent plants from which have spread the thousands of shrubs that adorn the gardens of Britain and over the seas. Many a good Holly has been raised here, and other shrubs also, although we fear it is not known generally that many of the plants now familiar in gardens were born in the Handsworth nurseries.

A few weeks ago the Hollies were fully described, and we may well refer our readers to the excellent monograph there published. All these species and varieties are represented in full vigour at Handsworth. The outline of a leaf of Mundy, Wilson, and Shepherdi accompany these notes. Shepherdi is well known;

Grape growers. In replying to an ordinary question of this kind, the most general and ready reply would be to say that the roots were at fault, from one cause or another, but this theory is knocked on the head by the fact stated in the question that Black Hamburg grafted on the roots of Madresfield Court, which failed, succeeded well afterwards, showing conclusively that the fault was not to be found in defective root action. This compels the thought that the failure was due to some defect in providing suitable cultural details. Speaking generally, it must not be lost sight of that the Madresfield Court Vine partakes more or less of the delicate constitution of the Muscat, and our experience of its culture goes to prove that a warmer and better drained border is necessary than for ordinary Grapes, such as Black Hamburg, Foster's Seedling, &c. By a warmer and better drained border we mean a border of higher elevation, and formed with a more liberal admixture of broken bricks and old mortar rubble added to the soil. This provided, we have found no more difficulty in



not so, however, Mundy and Wilsoni. Both of these were raised at Handsworth, and will be the Hollies of the future. The former, named after Mr. Mundy of Shipley Hall, Derby, has a glossy green leaf of firm texture, and distinguished by a certain stiffness which gives it a peculiar value for shelter; the growth is strong and erect. Wilsoni is a great favourite of the writer. Its leaves are large, lustrous in colour, conspicuously toothed, and clothe the shoots in such a way that a specimen taken reasonable care of presents a solid surface of green, relieved in winter with large deep red berries. All these are varieties of the Holly of hedgerow and woodland, and no form is unrepresented, whether it is beautiful in itself or of interest botanically. Donningtonensis is there, the curious Hedgehog Holly or Ferox, the beautiful Moonlight Holly (*flavescens*), Fisheri, handsworthensis, the beautiful Handsworth New Silver Holly, the yellow-berried fructu-luteo, Hodginsii, Marnocki (a beautiful Holly raised in these nurseries, and thick with scarlet fruit), nobilis, ovata, platyphylla, and scotica. Huge specimens of the golden and silver variegated varieties stand out clear and bright in the winter days, and give a fresh colouring to the garden which no other variegated tree or shrub can impart. We know not at what season the Handsworth nurseries are most interesting. At the present moment the extensive collection of flowering trees and shrubs is in full bloom, and, as elsewhere, the abundant blossoming this year has been as enjoyable as the groups of Roses in their summer flower, for in Rose time a visit to Handsworth

is well repaid by the enormous quantities that are grown in these broad acres. The collection of bush Ivies is complete, but of this we shall write shortly, giving at the same time illustrations of the beautiful *amurensis* at Handsworth and Hatfield. The Holly is the shrub to plant for shelter, and for the sake of its varied beauty. Those who have large gardens and estates in which the ordinary Holly only is planted should make a greater acquaintance with the family and visit such a nursery as this, or read what has been already written of this great group of hardy shrubs.

## GARDENING OF THE WEEK.

### FRUIT GARDEN.

#### CUCUMBERS.

AS soon as the plants grown in frames are in full bearing, the old ones in the houses being more or less exhausted, and often infested with red spider, should be replaced with young ones. Light top-dressings of loam, leaf-mould, and horse manure

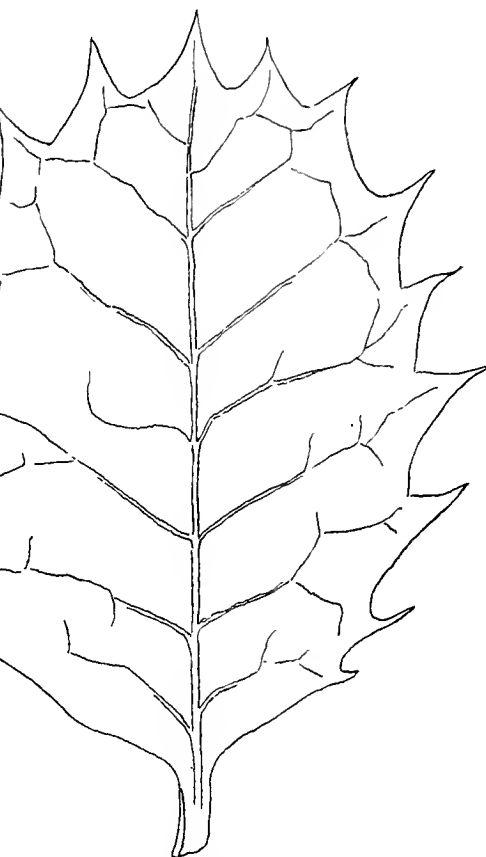
should be given to plants which show signs of weakness from over-cropping. Water with diluted liquid manure, thin the growths, and crop lightly for a time. Thoroughly syringe the plants on bright days, and close early in the afternoon.

#### CHERRIES.

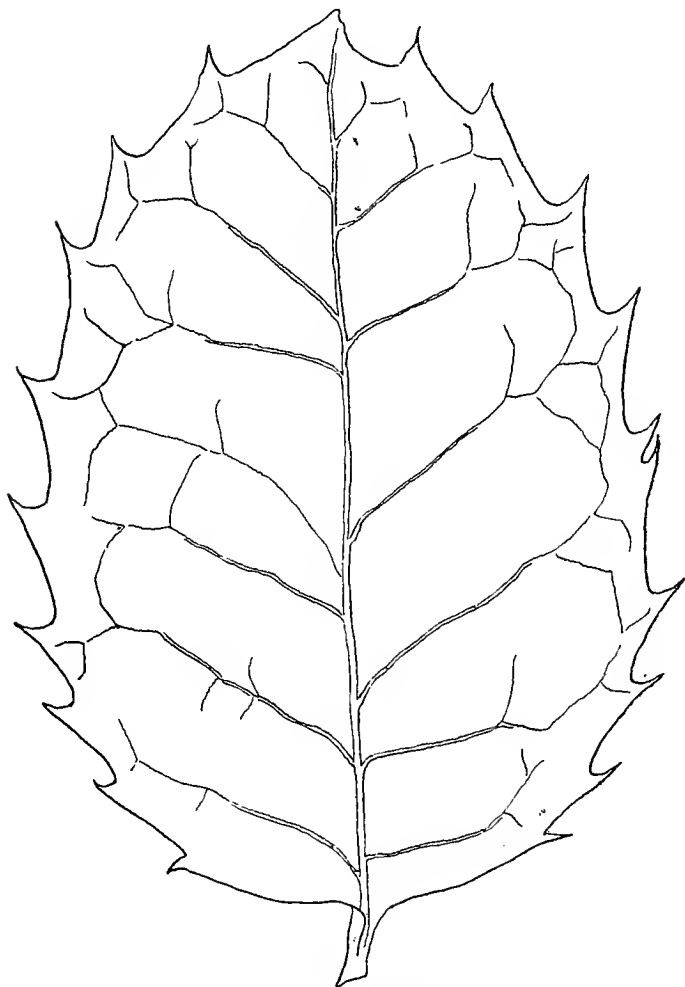
The houses where ripe fruit is hanging should be securely netted to keep out the birds, and be kept dry and cool. Trees growing in borders, watered and mulched as advised in previous calendars, will require very little, if any, water until the fruit is gathered. If water is necessary, remove the mulch, water the border moderately, and replace the mulch, choosing a fine morning for carrying out the work.

#### FIGS.

Trees grown against walls are later than usual in making growth; as soon as the shoots become large enough they must be disbudded freely, allowing plenty of space between the shoots, so that the wood may thoroughly mature. Secure the growths as they increase in length, thin the fruits, and give liquid manure freely to old trees, especially those growing on light soils. Pears and Plums grown upon walls should have all the strongest shoots pinched back to about four buds, starting at the top of the trees and doing the bottom half of



ILEX SHEPHERDL. (Leaf outline, slight reduction.)



ILEX WILSONI. (Leaf outline, slight reduction.)

the trees a few days later. Tie in, as soon as they become large enough, those shoots required for furnishing the trees. Pyramid and bush Apples, Pears, Plums, and Cherries should be treated the same. This will clear the trees of large numbers of maggots and aphid if all the curled leaves are removed at the same time. Give the trees a good washing afterwards with the garden engine with clear water; this will help to clean the fruit and foliage.

#### VINES.

Disbud the shoots of Vines growing against walls, leaving one or two shoots to a spur, allow plenty of space between the shoots, at least 12 inches. Tie in the shoots as they become large enough, and stop at first or second leaf beyond the bunch; thin early and leave one bunch to a shoot. Where the Loganberry is grown in rich soil and well established strong shoots will now be throwing up in quantity. Select the strongest of these and train in between the fruiting ones, removing the weakest. Give liquid manure water when necessary, and mulch with short manure.

*Impney Gardens, Droitwich.*

F. JORDAN.

### KITCHEN GARDEN.

#### THINNING CROPS.

ONIONS will be the first to require attention. They need not be thinned too severely, as many may be pulled quite young and are useful in the kitchen. If there are blanks in the rows some may be transplanted. Take care not to plant too deeply. Make the plants firm after thinning, and give a dressing of soot or wood ashes. If small Onions are required for pickling a portion of the bed may be left unthinned, as this will keep them small. Carrots should be thinned early. It is not necessary to thin the early sorts severely, as they can be used when quite small. For the main crop thin to 6 inches apart. A dressing of soot will also benefit this crop. Parsnips should be thinned to about 8 inches. If Parsley has come up thickly it will be the better for a slight thinning, and those taken out may be used for transplanting

into frames for winter use. Thin Lettuce to about a foot apart, putting in the thinning for a succession. On no account should the work be carried out in very dry weather, as many Carrot crops are lost in this way.

#### PEAS.

Another good sowing should be made at this time of the large podded sorts, such as Duke of Albany, Duchess, and many other sorts not suitable for early sowings. These fine Peas may be sown much thinner than the round-seeded early varieties. Sow 5 feet between the lines. A sowing of Spinach may be put in between the rows if economy of space has to be considered. These Peas will require taller stakes than the earlier sowings. Stake and earth up all Peas as soon as they are 4 inches high.

#### GENERAL SOWINGS.

A sowing of Turnips should be made every three weeks, Golden Ball being a suitable sort for June sowings. A few short lines of Lettuce should be put in frequently, the thinnings being transplanted. It is a good practice to do this at stated intervals as a guard against mishaps. A sowing of Carrots in June often proves useful, especially where the main crop of Carrots is not to be depended on. Choose a shady border. Another sowing of French Beans should also be got in, as the early sowings are not to be depended on in cold soils. To ensure a constant supply of Spinach this must be sown every fortnight.

#### CABBAGE AND CAULIFLOWER.

These raised on a warm border from March sowings are now ready for planting, and if possible this should be done in showery weather; 2 feet apart will be found suitable for most varieties. This planting will be a succession to those wintered in frames. If the plot for Cauliflower has a southern exposure a small portion only should be planted with the variety Autumn Giant, and a large planting should be made on a piece of ground having a northern aspect, as finer heads will be the result, and a much longer supply afforded. Should dry weather set in after planting a watering should be given in the evening. If time allows the earliest planted Cauliflower will be greatly benefited by weak applications of liquid manure or a rich top-dressing.

THOMAS HAY.

*Hoptoun House Gardens, N.B.*

## FLOWER GARDEN.

### SUB-TROPICAL PLANTS.

IN many gardens where house room is limited it is often a difficult matter properly to harden off many of the fine-foliaged plants used in sub-tropical gardening. Often for want of a more suitable structure Palms, Bananas, &c., are placed early in the year in vinerias and Peach houses. While in these houses the plants do extremely well; here they find the conditions suitable for the free and luxuriant growth so much admired. But the trouble commences when the time arrives for hardening off. The vine foliage overhead has become thicker and the shade denser, and, as a result, the plant's growth beneath is quite unfit to withstand rough winds, bright sunshine, or an occasional low night temperature. But necessity is the mother of invention, and the gardener improvises various shelters and devices, gladly availing himself of the friendly protection afforded by any neighbouring Beech trees. When possible, advantage is taken of a dull period to plunge or plant the specimens in their respective places. The ensuing week or ten days is a most anxious time, for until they are thoroughly hardened Banana leaves are damaged and discoloured quickly, and such Palms as Kentias and Latanias are liable to be spoilt for the remainder of the season by a few minutes strong sunshine. It is well to keep handy some poles and pieces of tiffany, and place as a temporary covering over these plants during rough winds, and for a few hours in the middle of hot days. This protection may soon be dispensed with. I am greatly in favour of planting such as Musas rather than plunging the pots or tubs.

When planted in rich soil *Musa Ensete* develops the brilliant colour of its leaf midrib to a greater degree than when plunging is practised, and the foliage is much more luxuriant. While the Madagascar Banana is more suitable as an isolated specimen, the Japanese *Musa Basjoo* (*M. japonica*) is very striking when grouped, especially so if the plants are of different sizes. A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## INDOOR GARDEN.

### PELARGONIUMS AS WALL PLANTS.

IT is sometimes a puzzle to know with what to clothe the back wall of a vinery or Peach house, and it is not too much to say that in two or three years' time such a position can be made of much interest and beauty by planting Pelargoniums. The present is a capital time to plant, and the border which the plants are to occupy should be drained well and be filled with good turfy soil. To this add some old mortar rubble. With good plants and a little attention a fair amount of the wall space will be covered by the following autumn. Attend well to their roots with water during the growing season, manual aid being unnecessary until the border is well filled with roots and the plants thoroughly established. The only other attention necessary is to thin out a few of the weak shoots before growth commences early in the year. Ivy-leaved as well as zonal Pelargoniums may be planted in association, and the varieties will depend upon individual taste, as they may all be scarlet or mixed colours.

### VERBENA ELLEN WILLMOTT.

From now onward there are few plants that will afford a more attractive display than a well-flowered batch of this. Strike the cuttings, five or seven in a 3-inch pot, and directly they are well rooted transfer them without disturbance into 5-inch and 6-inch pots, these being clean and well drained. In equal parts of turfy loam and leaf-mould, with a little sand added, the plants will grow well. The cold frame is a good place to grow them, and if they are syringed and their shoots stopped about twice they will soon develop good bushy plants and produce a wealth of bloom. Worked in batches they can be had in flower at any season, but, needless to say, they are most admired when in flower during the early spring and late autumn.

### ROSE MME. N. LEVAVASSEUR.

In every character except habit of growth this useful new dwarf Rose is an exact counterpart of the well-known Crimson Rambler. For all kinds of decorative work it is a gem, and efforts to increase the stock by propagating from cuttings should be made at once. Obtain these from plants that have previously flowered. Take off the young growths and insert as cuttings, three around the sides of 3-inch pots. Plunge them in a gentle bottom-heat in a close cold frame, and they will readily strike root, and may soon be grown into good plants for flowering.

### GLOXINIAS.

Young plants raised from seed sown early in the year should have good attention. By the beginning of September they should be good flowering plants. The plants grow best in low-roofed houses, where they can be placed near to the glass and obtain plenty of light. Weak but frequent applications of guano and soot water will encourage the development of large leaves, good crowns, and abundance of flowers. J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

## BOOKS.

**Journal of the Royal Horticultural Society.**—The volume of the society's journal which has just reached us is the most interesting and freely illustrated of any that have yet appeared. The lecture by Mr. James H. Veitch upon "Hardy Ornamental Vines," and reproduced here, is an important contribution to the subject, and we have nothing but praise for the coloured illustration of a leaf of *Vitis armata* Veitchii,

showing the beauty of its autumn tints of crimson and brown. There are also figures of the type and the variety, showing their natural growth, of *V. Thomsoni*, *V. megaphylla*, *V. acontifolia*, *V. flexuosa* var. *Wilsoni*, *V. harryana*, *V. lecoideis*, *V. Romaneti*, *V. sinensis*, *V. heterophylla*, *V. Delavayi*, and *V. flexuosa* var. *chinensis*. Dr. Cooke continues his invaluable notes about fungoid pests of the garden, and Mr. Wyatt, whose ripe judgment Dahlia growers esteem, suggests rules for judging the flowers. He urges the necessity for more definite and stringent rules, as "at present there is very little to guide one, and especially a beginner, in the selection of the flowers to show, and that very much of the merit of a Cactus Dahlia is left to the personal and individual taste of the judges, tastes which oftener than not are entirely unknown to the exhibitors, and one can quite imagine in a close competition an award being given to one or other of the stands in which some flowers, or some special features about them which happen to be in favour with the judges, predominate. One judge may think size of chief importance, and there are many such; another will allow bright colour to influence his decision; another some other property. The award may be perfectly correct, but in the absence of any code for judging a great weight is laid on the responsibility of the judges, and a great deal of insecurity on the fate of the exhibitors." There are four lectures on vegetables, an excellent one by Mr. W. H. Divers on "Vegetables All the Year Round," by Mr. W. G. Lobjoit on their culture for market, by Mr. Edwin Beckett for exhibition, and the correct ways to cook them by Dr. Bonavia. The other principal contents are "On the Productivity of Seeds," F. J. Eaker; "The Hollyhock," George Webb; "Autumn Raspberries and Strawberries," Mr. James Hudson; "On Size in Flowers, Fruits, and Vegetables," E. T. Cook; "Germination of Amaryllideae," A. Worsley; "Variation Under Wild Conditions," C. T. Druery; "Medicinal Medicine," Rev. Professor Henslow; "The Pruning of Roses," M. Viviani Morel; "Rock Garden and Waterside Irises," Eleonora Armitage; "Hardy Irises," W. J. Caparne; "Albinism," John Bidgood; "Heredity Experiments," Charles C. Hurst; and "In Hawaiian Islands," the Rev. Canon Weymouth. The editor has written a pithy description of the society, its past and present position, and there are the usual notices, abstracts, and commonplace notes. The Journal of the society increases in usefulness, and to the Rev. W. Wilks, the editor, horticulturists owe a debt of gratitude.

WE take the following from the recently issued Journal:—

#### THE CENTENARY, 1804—1904.

All Fellows will be delighted to hear that His Majesty the King has graciously directed that, in honour of the centenary, His Majesty's name should be added to that of the Queen as joint patrons of our old society.

The Royal Horticultural Society has now been established exactly 100 years, and on surveying the past century of its existence we are confident that it is in great measure due to the work done by the society that British gardening and gardens now by universal admission take such a foremost place amongst the horticulture of the whole world. It is unnecessary to dwell on the events and history of the past 100 years, for these are all readily accessible in the Journal of the society and elsewhere. The society has passed through many vicissitudes of fortune, it has had several homes and at least three other gardens, but never has it had such a home or such a garden as those into the possession of which it is now about to enter.

It should be specially noted that the society has worked throughout the whole of its century of existence without any single subsidy whatever from Government or from any other public source, although much of its work has been, and is, of distinctly national character and advantage.

The council believe that the society is now entering on a period of peace and prosperity such as it has never known before, and that it has both a record in the past and a mission in the future of which any society may be most justly proud. Much still remains to be done, and the council, whilst themselves doing their utmost, venture to call upon every Fellow also to do his best.

(1) To still further increase the society's numbers,  
(2) To help wipe out the debt on the Hall, and  
(3) To provide a properly equipped Horticultural Research Station for the new gardens at Wisley.

The last is a pressing want for British horticulture generally, but the council do not feel themselves justified in embarking on the expenditure it involves out of the society's general income until the new Hall and its furniture are paid for entirely.

The council recognise that it is very largely due to the individual efforts of the Fellows that they have been able to

elect 2,500 new subscribers during the past two years, but they think that every use should be made of the present unique occasion of the society's centenary for still further increasing the roll of the Fellows.

Of the now nearly 8,000 members about 1,200 have contributed to the building fund according to their means, but as all the Fellows will enjoy the more convenient and more spacious exhibition hall, lecture room, and library, the council trust that all who have not yet sent a contribution will now do so, in order that it may indeed be the Hall of the whole society and not of a certain number of the Fellows only. Let there not be one single Fellow when the Hall is opened who cannot say he has done his share (no matter how small) towards the cost of its erection, even though he may have paid for but a few bricks in the foundation.

When we look back over the past century and see the wonderful changes it has introduced in every branch of horticulture, as in everything else, we hesitate to forecast what improvements may not be made in even a few years to come, both in plants themselves and in gardening appliances and operations. Hybridisation will, no doubt, play the foremost part in the immediate future, but to make full gain of all its wondrous possibilities its laws require to be more fully studied and made known. Electricity, also, will possibly be gradually applied in many ways; and almost all the natural laws and phenomena of plant life have to be still further investigated, and other such useful work to be done. None of these questions can be adequately dealt with without the establishment of a really scientific research station in connexion with the gardens at Wisley, where experiments can be made and carried on side by side in the laboratory and in the gardens. The council have decided to proceed with this work as soon as the New Hall is paid for and the finances satisfactorily adjusted, but they do not feel justified in embarking on it so long as the present liabilities remain undischarged. Donations to either, or both, of these objects will be gratefully received, and the council appeal to all the Fellows to rally round them, and each and every one to do his utmost to give the grand old society a splendid start into the second century of its work and usefulness.

The New Hall, which is to be called the Royal Horticultural Hall, measures 142 feet by 75 feet, which, with the two annexes opening into it, each 47 feet by 24 feet, gives a total floor space of nearly 13,000 superficial feet for the purposes of the society's fortnightly and other shows. This, compared with the 7,000 feet available at the present Drill Hall, shows that the frequent disappointment experienced in the past, of exhibits not being able to be staged for lack of room, will be almost, if not entirely, removed.

Vincent Square lies just behind the Army and Navy Stores in Victoria Street, Westminster, and is only five minutes' walk from the present Drill Hall. It is exactly midway between Westminster Abbey and Victoria Station, and is most accessible from all parts of London. The nearest railway stations are Victoria and St. James's Park.

The council have already taken out the necessary licence, and when not being used by the society they are prepared to let the hall, the council, committee, and lecture rooms to other societies for shows and exhibitions, and for entertainments, bazaars, concerts, and the like. Particulars of terms, dates, &c., and conditions of letting, can be had on application to the secretary. The council particularly ask all Fellows to make it as widely known as possible what spacious and convenient premises they have for letting, as to that source of income they look to maintain a material part of the annual expense of the upkeep of the building.

The west wing of the second floor will be devoted to the purpose of worthily housing the library of the society, with which is included the incomparable collection of horticultural works known as the Lindley Library.

The first of the fortnightly shows to be held in the Royal Horticultural Hall is fixed to take place on Tuesday, July 26, and after that date all the society's work will be conducted from Vincent Square instead of Victoria Street. Fellows are therefore requested to note the change in the address. The telegraphic address will still be "Hortensia, London," and the telephone will be installed as soon as the change of quarters actually takes place.

## THE TEMPLE SHOW.

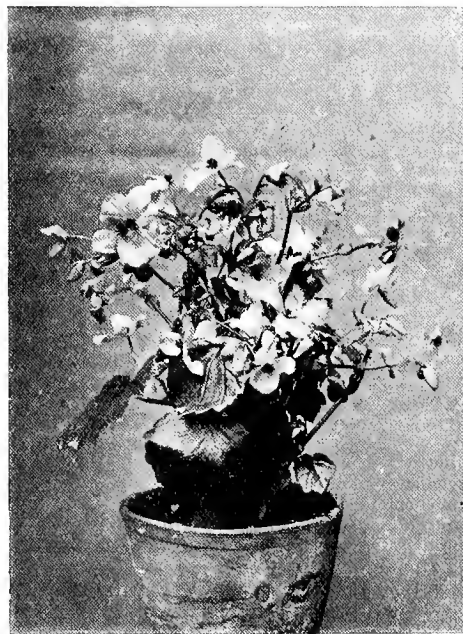
ALTHOUGH it may seem a mere repetition of what we have written in former years to write that the Temple show of 1904 is better than any of its predecessors, this opinion was generally expressed, and was fully borne out by the splendid display of plants and flowers and fruits. There were masses of hardy flowers in marvellous variety, gorgeous bued Cannas and Azaleas vied with the almost equally brilliantly tinted Calceolarias, Begonias, and Pelargoniums; Rhododendrons were a host in themselves, and miscellaneous flowering shrubs were also well represented. Roses and Carnations made, as they always do, a remarkable display alone, and even to mention the Orchids at the Temple show is to conjure up a feast of beauty that this year was as rich as ever. Nor must the foliage plants be forgotten, for apart from their real value they served to accentuate the effect of the more brilliant plants around them; and out of doors, too, the ornamental trees and shrubs were much admired; they served to hide the tents, and added quite a picturesque touch to the

grounds. A detailed description of the groups and plants and flowers of special merit will be found in the appended report.

### ORCHIDS.

There was a magnificent exhibit of Orchids in variety from Baron Schröder, The Dell, Egham, in which *Odontoglossums* were conspicuous. *Cymbidiums*, *Lælias*, *Vandas*, &c., made a bright background, while *Cattleyas*, *Cypripediums*, and other Orchids in choice sorts were extensively shown also. To single out a few of the best we should mention *Odontoglossum crispum* Rex, *O. c. grande maculatum*, *O. c. Luciani*, *O. hybridum*, *O. triumphans delense*, *O. elegantius*, *O. polyxanthum* (Kegeljani), and other choice hybrids; *Vanda teres*, *Cattleya Skinneri*, *C. Mossiæ*, *Cypripedium barbatum*, *C. callosum Sanderæ*, several *Masdevallias*, and *Dendrobium Bensoniæ* were finely flowered, while *Miltonias*, *Lælio-Cattleyas*, *Phalænopsis*, and *Lycastes* added variety and colour to the display. *Lælia* × *Edward VII.*, a digbyana hybrid, with enormous fringed, rose-coloured lip, was particularly noticeable.

In the group from Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound), *Miltonia vexillaria* in several shades of pink and rose made a very pretty centre, while immediately on either side of it were small groups of *Odonto-*



MESRS. VEITCH'S BEGONIA AGATHA.  
(Flowering for the second time in four months.)

glossums, and beyond these again *Cattleyas* were arranged. Among the *Odontoglossums* *O. crispum* Castanea, *O. c. Mrs. Causton*, *O. c. colmanianum*, *O. c. Lady Roxburgh*, *O. polyxanthum* Gatton Park variety, *O. Adrianeæ*, and *O. hunnewellianum* *Illustre* were most notable. The *Cattleyas* included some fine varieties of *C. Mossiæ*, *C. intermedia cœrulea* Gatton Park variety, *C. louryana*, and *C. Mendelii*, while miscellaneous Orchids comprised *Miltonias*, *Cymbidiums*, *Masdevallia harryana* Bull's Blood, *Lælia purpurata*, *Epidendrum prismatocarpum*, *O. citrosium punctatissimum*, and others.

The group from Sir Frederick Wigan, Bart., Clare Lawn, East Sheen, was arranged more flatly than the groups around it, and the background of *Adiantum* was more plainly visible, owing to the plants being quite thinly disposed. The masses of *Cattleya Mossiæ* and *C. Mendelii* were fine, and were largely responsible for the charming effect of this display. *Lælio-Cattleya* G. S. Ball and L.-C. *Hippolyta* var. *Phœbe* made bright bits of colour among *Cattleya Skinneri* alba, *Miltonia bleuana* nobilior, *Odontoglossum crispum*, *Phalænopsis grandiflora rimestadtiana*, and others of light

shades; *Lælio-Cattleya canhamiana* var. *Marguerite*, with pure white drooping sepals and petals and rich purple lip, was very fine, and other good things were *Cypripedium bellatulum*, *C. b. album*, *C. niveum*, *Thunias*, *Sobralias*, *Lælio-Cattleya canhamiana* × *Lælia tenebrosa*, and *Brassia brachiata*. A cultural commendation was given to *Cymbidium devonianum*.

M. Ch. Vuylsteke, Lochristi, Belgium, exhibited some forms of *Odontoglossums*, remarkable for their intensely beautiful markings. *Odontioda Vuylstekeæ*, the result of a cross between *Cochlioda noezliana* and *Odontoglossum Pescatorei* was of unique colouring. The lower half of sepals and petals is red, thus giving a red centre to the flower. This bright colouring is surrounded by a narrow line of white, the upper part of sepals and petals, *i.e.*, the outer part of the flower, is rose colour, while the margins are purple. The lip is deeply lobed in the centre, the lower half being creamy white marked with red.

Captain G. L. Holford, C.V.O., C.I.E. (Orchid grower, Mr. Alexander), exhibited a small group of choice and well-grown Orchids. *Cattleyas* and *Lælio-Cattleyas* chiefly were shown, and the flowers were unusually fine. *Lælio-Cattleya digbyana*-*Mossiæ* *Westonbirt* variety, with lilac-rose sepals and petals, the lip greenish yellow in the centre with rose margin, was perhaps the most striking flower. L.-C. *Fascinator nobilior*, L.-C. *Iolanthe*, *Cattleya Warneri*, C. W. *Westonbirt* variety, C. *Lawre-Mossiæ*, L.-C. *Baden-Powell*, C. *Mossiæ* *Wagneri*, *Lælia purpurata* alba, L.-C. *Hippolyta*, L.-C. *hyæana*, L.-C. G. S. Ball, and L.-C. *Ascania* were other beautiful things. *Cypripedium Lawrebel*, *C. callosum Sanderæ*, C. *Maudia*, and *Cymbidium tigrinum* were also included.

*Dendrobium crepidatum* album was shown by D'Arcy E. Taylor, Esq., The Rocks, Marshfield, Chippenham.

The group of Orchids from Messrs. Sander and Sons, St. Albans, differed in arrangement from all the others. It was relieved by plants being raised on pedestals and pots, thus breaking the formal outline and with good effect. *Odontoglossums* in many and choice forms occupied the centre of the group, while on either side were *Cattleyas*, *Phaius*, and miscellaneous Orchids. At one end of the display were some fine *Phaius Phœbe* and *P. Cooksoniæ*, their erect, many flowered racemes making a brave show. Then came *Phalænopsis*, *Oncidiums*, various *Cattleyas*, *Lycastes*, &c, leading up to a mass of *Lælio-Cattleya Martineti* var., a bold, richly coloured flower (*C. Mossiæ* × *L. tenebrosa*). Next came a small group of *Odontoglossums* in many choice forms, conspicuous among them being *O. ardentissimum* *Queen Alexandra*. Among the miscellaneous Orchids staged in the other portion of Messrs. Sander's group were *Cattleya* Mrs. Myra Peeters (*C. gaskelliana* alba × *C. Warneri* alba), pure white except for a yellow throat, *Cypripedium Phœbe* var. *splendissimum*, *C. rothschildianum*, some very fine L.-C. *canhamiana* var., *Vanda teres*, *Lælia purpurata*, *Vanda cœrulea*, *Miltonia vexillaria maxima*, and *Thunia Marshalliæ*.

In the display of Orchids from Messrs. Cypher and Sons, Cheltenham, *Odontoglossums* were prominent in the centre, while *Cattleyas*, *Cypripediums*, &c., were largely represented. *Odontoglossums* were chiefly represented by light forms of *O. crispum*, although there were spotted varieties also, *O. hystrix*, *O. Uro-Skinneri*, *O. andersonianum*, *O. Pescatorei*, and others were included. *Dendrobium nobile*, *Cypripedium grande*, *Lælia tenebrosa*, *L. purpurata*, *Vanda teres*, &c., formed a background, and *Cattleya Mossiæ* and *C. Mendelii* were represented by good varieties. *Masdevallia veitchiana grandiflora* made a brilliant bit of colour. *Cattleya Skinneri* (oculata), *Cypripedium niveum*, C. *lawrenceanum*, *C. callosum Sanderæ*, *Phalænopsis rimestadtiana*, *Masdevallia harryana*, and *Maxillaria sanderiana* were also noticeable.

Messrs. Cowan and Co., Gateacre, Liverpool, exhibited a very good lot of *Cattleyas*, *Odontoglossums*, &c. Good forms of *O. crispum* were largely shown, some of them finely spotted, *O. concinnum* var., *O. wilckeanum*, and *O. Adrianeæ*. Among the *Cattleyas* were *C. Mossiæ* and *C.*

Mendelii, *Lælio-Cattleya canhamiana*, *L. purpurata* × *digbyana*, *Cœlogyne pandurata* (a lovely flower with green sepals and petals, the lip and throat green beautifully lined and marked with black), *Cypripedium Vipanii*, *C. villosum* × *Exul*, *C. Rolfeæ*, *Masdevallias*, and *Dendrobiums* were also included in this display.

Messrs. William Bull and Sons, Chelsea, had some good *Cymbidiums*, *Oncidiums*, *Masdevallias*, *Miltonias*, *Odontoglossums*, &c., in their nicely arranged group of Orchids. Some of the larger *Oncidiums*, *Cymbidiums*, and *Lælia purpurata* formed the background, while below these were *Cattleya Mossiæ* Countess and other forms of *C. Mossiæ*, *C. Schröderæ albescens*, *C. Mendelii*, *C. M. Doris*, and *Lælia purpurata* Queen Alexandra (pure white, except for the yellow-brown lined throat). Numerous *Odontoglossums*, *O. Adrianae*, *O. A. Chelsiense*, and *O. C. Fairy* were other prominent Orchids. A mottled variety of *Cattleya Mossiæ* called *Sunray* was noticeable. *C. M. gigantea*, too, was very good.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, had a wonderful display of Orchids, consisting largely of *Odontoglossums* and *Cattleyas*. In the centre was a large plant of *Cattleya Skinneri* covered with flowers, and throughout the group *Cattleyas* formed a groundwork from which the arching racemes of *Odontoglossums* rose gracefully. *Cattleya Mossiæ* Wageri, with white sepals and petals and yellow throat, *Lælio-Cattleya canhamiana*, *L.-C. Fascinator*, *Cattleya Warneri* alba, *C. Mendelii* Constance, *C. Mossiæ vestalis*, *C. M. reinckiana*, *L.-C. Fascinator* var. *Prince George*, *Brasso-Lælia purpurata-digbyana*, and *Cattleya Mossiæ* M. Cahuzac deserve a special word of praise. Among the *Odontoglossums* it was equally easy to find good things, for instance, *O. vuykstekeanum*, with sepals and petals heavily, almost wholly, blotched with yellow, the large fringed lip white with yellow blotch in the centre; *O. Pescatorei* Charlesworthii, a pretty variety with rich purple spots; and *O. crispum* Rosamund, a lovely flower dotted and blotched with red upon a ground of varying shades of lilac-purple. There were other fine unnamed varieties also. Other Orchids worthy of special mention were *Cœlogyne pandurata*, *Lælio-Cattleya G. S. Ball*, *Cypripedium callosum hyeanum*, *Vanda teres*, *Miltonias*, &c.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed fine masses of *Cattleya Skinneri*, *C. Mossiæ* (carrying sixteen spikes), as well as smaller plants of *C. M. excellens*, *C. M. reinckiana splendens*, *L.-C. Aphrodite* alba, *C. lawrenceano-gigas*, *Brasso-Cattleya Thorntonii*, and some other good varieties of *C. Mossiæ*. *Dendrobium Bensoniæ* was very good. Among the *Cypripediums* were *C. lawrenceanum hackbridgensæ*, *C. rothschildianum* Low's var., *C. callosum Sanderæ*, *C. walkerianum*, *C. Goweri magnificum* Schofield's var. *Cattleya intermedia* alba, *L.-C. Phebe*, *Cymbidium lowianum*, good forms of *O. crispum*, *O. Pescatorei virginale*, *Vanda teres*, and *Epidendrum prismatocarpum*, too, were shown.

Mr. John Robson, Bowden Nurseries, Altrincham, Cheshire, showed a large group of *Odontoglossums*, chiefly forms of *O. crispum* and *O. Pescatorei*. Among the named ones were *O. crispum* Model, *O. c. Purity*, *O. c. giganteum*, *O. c. xanthotes* var., as well as many unnamed forms. *O. andersonianum*, *Phalænopsis amabilis* var. *grandiflora*, *Masdevallia harryana*, *Lælia purpurata* var. *Ashfieldiense*, and *Dendrobium Phalænopsis schröderianum* were also included in Mr. Robson's group.

John Rutherford, Esq., M.P., Beardwood, Blackburn (gardener, Mr. John Supton), exhibited a small group of Orchids that contained some fine varieties of *C. Mossiæ*, for instance, *C. M. Empress* Queen and others, as well as *Odontoglossum loochristiense rochfordianum*, *O. Queen Alexandra* var. (*O. harryanum* × *O. triumphans*).

M. A. A. Peeters, 62, Chaussée de Forest, Brussels, showed *Lælio-Cattleya Martineti* var. *The Coronation* (*L. tenebrosa* × *C. Mossiæ*) and *Cattleya Stepmani* (*C. corbeilensis* × *C. Warscewiczii*). An award of merit was given to the latter.

M. Jules Hya de Crom, Ghent, exhibited *Odontoglossum japonais* (c. album × *Rolfeæ*).

Frank Wellesley, Esq., Westfield, Woking, showed *Cattleya Mendelii* var. *W. E. Dickson*, *Lælia purpurata* Mrs. N. A. H. Mitchell, *Cattleya Mossiæ arnoldiana* Mrs. Francis Wellesley, *C. M. Bishop* Amigo, *C. M. wellesleyana*, and *L.-C. Captain Percy Scott* Westfield variety.

R. G. Thwaites, Esq., Chessington, 23, Christchurch Road, Streatham, showed *Odontoglossum crispum Boltonii*, a very handsome flower, heavily blotched with purple-brown upon a light ground. This *Odontoglossum* did not receive any award because it had been disbudded, otherwise it doubtless would have been honoured. A few other new Orchids were similarly placed.

Richard Ashworth, Esq., Ashlands Hall, Newchurch, Lancashire, had an attractive group of miscellaneous Orchids. *Odontoglossums* comprised some very good forms of *O. crispum*, as *O. c. punctatissimum* Princess Maude, *O. c. Black Prince*, *O. c. King Arthur*, *O. c. Victoria Regina*, and *O. c. Gaston Linden*. *Cypripedium callosum hyeanum*, *C. lawrenceanum*, *C. Goweri splendens*, *L.-C. Edwardii*, *L.-C. canhamiana* Mrs. R. Ashworth, and *L.-C. Eudora* were also noticeable.

The Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Hill), exhibited *Lælio-Cattleya digbyano-Arnoldii* and *L.-C. Martineti* var., the latter receiving an award of merit.

#### NEW ORCHIDS.

A first-class certificate was given to each of the following:

*Odontioda Vuykstekeæ*.—A wonderful new bigeneric hybrid between *Cochlidia noezliana* and *Odontoglossum Pescatorei*. This is quite an unique plant, and was the centre of attraction so far as Orchids are concerned. The flower resembles an *Odontoglossum* in form of petals and sepals, but the lip is deeply lobed in the middle. The lower half of the sepals and petals is red, with, perhaps, a tinge of orange; around this colouring is a line of white. The upper half of the sepals and petals is rosy purple, the latter colour prevailing most at the edges. The lobed lip is white, tinged with pink, and spotted with red. It may be described as a red *Odontoglossum*. From M. Ch. Vuyksteke, Loochristi, Ghent.

*Lælio-Cattleya digbyano-Mossiæ Westonbirt variety*.—A very large, handsome, well-formed flower. The sepals and petals are of uniform colouring, rich lilac-rose, while the lip has a greenish yellow centre and a fringed margin the same colour as the sepals and petals. From Captain Holford, C.I.E., C.V.O., Westonbirt, Tetbury (Orchid grower, Mr. Alexander).

*Lælio-Cattleya canhamiana Rosslyn variety*.—A particularly handsome flower, with rich rose-coloured sepals and petals and velvety purple lip, the throat being lined with yellow. The lip is of good form and rich colouring, and associates admirably with the rose-coloured sepals and petals. From Messrs. Charlesworth and Co., Heaton, Bradford, Yorks.

*Lælio-Cattleya Fascinator King Edward*.—A flower that is very striking on account of its dainty and beautiful colouring. The sepals and petals are faintest blush and almost transparent, the lip is large, the purple on the side lobes fading away at the base and also above. The throat is rich yellow, this colour being separated from the purple below by a band of white. From Messrs. Charlesworth and Co., Heaton, Bradford.

An award of merit was given to each of the following:

*Odontoglossum venustum*.—This is the result of a cross between *harryano-crispum* and *ardentissimum*. A large flower with dull white ground heavily marked with purple-brown over sepals and petals. The colour fades away towards the margins. The lower half of the lip is white, making it most conspicuous. From M. Vuyksteke, Ghent.

*Odontoglossum concinnum letum*.—*O. Pescatorei* and *O. sceptrum* are the parents of this hybrid. The ground colour is creamy white, the sepals blotched with chocolate, and the petals more lightly marked with the same colour. The lip is white, except for a few spots at the top, and has

a wide spreading base. From M. Vuyksteke, Ghent.

*Lælio-Cattleya Martineti* var.—A very handsome variety. The flower is large, sepals and petals spreading, rich deep rose, the lip is widely expanded, rich crimson-purple, with yellow at the base of the throat. From the Hon. Walter Rothschild, Tring Park, Tring.

*Cattleya Stepmani*.—A beautiful hybrid, the result of a cross between *C. corbeilensis* and *C. Warscewiczii*. Sepals and petals are uniform rich rose-purple; the lower half of the lip is intense velvety purple, the upper half cream coloured, the yellow from the base of the throat running into it. From M. A. A. Peeters, Chaussée de Forest, Brussels.

#### STOVE AND GREENHOUSE PLANTS.

Messrs. H. Cannell and Sons, Swanley, made one of their handsome groups of *Cannas*. The gorgeous hues of these flowers impressed the public with their full worth for grouping purposes, in which for striking effects there are few flowers equal to them. The plants were well grown, and carried immense spikes of bloom of superb quality. *Black Prince*, *Jean Tissot*, *Duke Ernst*, *J. B. van der Schoot*, and *Jupiter* were some of the better sorts in this grand display.

Quite one of the chief features in the large tent was the choice and beautiful group of hardy *Azaleas* set up by Messrs. R. and G. Cuthbert, The Nurseries, Southgate. In the centre of the group there was a grand mound of *Antony Koeter*, in fine condition, with numberless trusses of finely developed flowers. *Azalea Daviesi*, good; *Isabella van Houtte*, and a grand mass of *J. C. Van Tol*, a lovely salmon, made a fine feature. The pretty Ghent *Azaleas* were finely represented.

The group of new and choice plants from Messrs. Sander and Sons, St. Albans, is always an interesting exhibit, and the present occasion was no exception to the general rule. The new *Nicotiana Sanderæ* was seen freely disposed in the group, its pretty rose-coloured blossoms being very effective. The flowers appear to vary much in colour according to their age. There was also *N. Sanderæ* alba in evidence. The new foliage plants were splendid. *Begonia bowringiana*, *Phœnix Roebelini*, *Dracæna sanderiana*, *D. Broomfieldi* superba, and *Arancaria Rex* (a fine plant), making a handsome exhibit.

Messrs. James Veitch and Sons, Limited, Chelsea, also set up a magnificent group of a miscellaneous character. *Rhododendrons* in variety, *R. Sigmund Rucker*, *Mrs. Holford*, *Doncaster*, and *Marchioness of Lansdowne* being conspicuous. *Eremurus himalaicus*, *Azaleas* in variety, *Weigela Eva Rathke*, *Lilium Henryi*, *Deutzias*, *Laburnums*, *Clematis*, and numerous other plants, each contributed to make a fine show.

Messrs. John Peed and Sons, Roupell Park Nurseries, West Norwood, had a fine bank of well-grown *Caladiums*. The plants were beautifully fresh and well set up. Noteworthy examples in this collection were *W. E. Gladstone*, *Oriflamme*, *Candidum* (very good), *John Peed*, *Rio de Janeiro*, and the new *Golden King*, a great improvement on *Her Majesty*. The group was edged with pretty well-grown examples of *C. Argyrites*.

At one end of the large tent Mr. T. Jannock, Dersingham, King's Lynn, set up a group of *Lilacs*, and his well-known form of *Lily of the Valley*. The latter were well displayed in pyramidal form in the centre, large spikes, with handsome bells of a chaste character. The *Lilacs* were very representative, those grown under glass being contrasted with those grown in the open.

Messrs. Jackman and Son, Woking Nurseries, Woking, set up a very beautiful group of *Clematis*, embracing numerous varieties of different types. The plants showed excellent culture, and the group as a whole was charmingly displayed. *Fairy Queen*, *Mrs. George Jackman*, *Mrs. Hope*, *Jackmani rubra* (new), *alba magna*, *King Edward VII.*, *Mrs. Crawshay*, and *Nelly Moser* were among the singles. Of the doubles the best were *Belle of Woking*, *Duchess of Edinburgh*, *Lucy Lemoine*, and *Princess of Wales*.

*Calceolarias* from Messrs. Webb and Sons, Wordley, Stourbridge, made a welcome break.

The plants were beautifully dwarf and compact, carrying large and handsome individual blooms in a pleasing assortment of colours. There was a display of Gloxinias from the same firm, the flowers of wonderfully bright colours.

E. Ascherson, Esq., Pett Place, Charing, Kent, showed a pretty little group of Calceolarias and Streptocarpuses. The former were grand specimens, freely flowered, and highly coloured. The latter were interesting and diverse in character.

The well-grown tuberous-rooted Begonias from Mr. A. L. Gwillim, Cambria Nursery, New Eltham, contained flowers of large size and excellent form well displayed. Some of the single-flowered sorts were very large and handsome, and the doubles were of excellent type and good form.

From Messrs. B. S. Williams and Son, Victoria Nurseries, Upper Holloway, N., came a large group of Heaths, Boronias, and Rhododendrons. Of the latter Mme. Masson and John Walters were striking and effective. The Heaths were very well done, and the Boronias also freely flowered. *Acer japonica variegata* and *Eulalia japonica* created a welcome contrast.

A rather closely packed group of Caladiums of a representative character came from Messrs. John Laing and Sons, Forest Hill, S.E. B. S. Williams, Ignatu, Flambeau, Candidum, John Laing, and many other sorts were freely set up in the display. This exhibit suffered for want of accommodation.

Messrs. J. Hill and Son, Barrowfield Nurseries, Lower Edmonton, as usual, had a charming exhibit of Ferns, &c. This was most representative, embracing an immense variety of forms of unique and interesting character. *Adiantum* were fine. Others were *Davallia Assamica* and *Fijiensis*, *Gymnogramme peruviana*, *G. argyrophylla*, *G. grandiceps superba*, *Gleichenia rupestris*, and *G. dicarpa longispinata*, and, besides many other plants, a good specimen of *Polypodium pectinatum superbum*.

Mr. John Russell, Richmond, Surrey, had a fine group of miscellaneous foliaged plants. This embraced *Alocasias*, *Dracenas*, *Aralias*, *Caladiums*, and quite a lot of other plants, *Heliconia illustris rubicanlis*, *Alocasia Martin Cahuzac*, *A. argyrea*, and *A. watsoniana*, *Dracena Queen Victoria*, *Phyllanthus nervosus*, and several excellent *Aralias*.

The *Sarracenas* from Mr. A. J. A. Bruce, Edge Lane, Chorlton-cum-Hardy, are always a very welcome feature at the Temple show, and the display on the present occasion was of a high order of merit. The group was large and fully representative, and the individual specimens well grown. Some of the best were *S. Williamsii*, *S. Farnhamii*, *S. Fildesi*, *S. Stevensi*, *S. flava maxima*, and *S. flava ornata*. *Darlingtonia californica* and *D. rubra* (very fine) were much admired. *S. purpurea*, *S. Flambeau*, and *S. swaniana*, among others, will give one some idea of the wealth of material available.

A superb group was exhibited by Messrs. W. Balchin and Sons, Hassocks, containing many of their specialities. A grand lot of the beautiful *Lesche-naulia biloba major* was finely flowered. *Boronias* were well done, *B. heterophylla* and *B. elatior* were examples of cultural excellence. *Richardia elliotiana*, *Scutellaria mocciniana*, *Erica Cavendishi*, and the pretty *E. propendens* were others in this interesting display.

Mr. H. B. May, Dyson's Lane Nurseries, Edmonton, showed a large group—one half zonal *Pelargoniums* and the other half Ferns and foliage plants. Of the first named, Mrs. H. B. May, Conan Doyle, and Hall Caioe in the singles, Lord Kitchener and Captain Flayelle in the semi-doubles, and in the full doubles Captain Jolivet, Lady Ilchester, and Apotheose were striking sorts. The new *Polyantha Rose* Mme. L. Levavasseur was well displayed also. In the second half of the group *Davallia rufa*, *D. fijiensis robusta*, *Adiantum farleyense*, *A. Veitchi*, *Pteris Childsii*, *P. Summersii*, *Polypodium Mayii*, and the pretty *Asparagus myriocladus* all contributed to make a fine exhibit.

Begonias were a special feature, many very fine exhibits being made. Just inside the tent was a group from Messrs. John Laing and Sons, Forest

Hill, S.E. There were several fine plants in this group, doubles and singles being about equally balanced. *Lady Donaldson*, *Lady Jeanne*, *Lady Howard*, *Earl Clarendon*, *Sir F. T. Barry*, and *Lady Tate* were some of the best doubles.

Mr. John R. Box, Croydon, also had a fine group, excellence characterising his display. Large and handsome blooms of good form and beautiful colour were in evidence. Good doubles were Mrs. John R. Box (white), Bernice (flesh pink), Thora (edged salmon), Ethel Sparshot (white), Countess of Craven (apricot), Sir Joseph Renals (crimson), Ida (frilled salmon-blush), and Mrs. Webster (pretty picotee).

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, showed in their usual good form, their group of Begonias being remarkable for plants of superb culture. Of the double-flowered sorts the following were of the best: Mme. A. Patti (salmon), Mrs. Portman Dalton (soft rose), Lady Curzon (bright rich salmon), Avalanche (frilled, white), Pollie (rose), and Frilled Beauty (frilled, salmon). Good quality characterised the plants throughout.

Tuberous-rooted Begonias from Messrs. B. R. Davis and Sons, Yeovil, were also very good, the plants well flowered. The grand double white *The Bride* is a lovely thing; *Eileen*, also a good white, is large and full; and *Constance*, a lemon-yellow of good form, is pretty. Altogether the display was of considerable merit.

An excellent display was that made by Messrs. Thomas S. Ware, Limited, Feltham. The plants were well grown, the flowers also being particularly fresh and clean, and the colours varied. Form of flower was exquisite, showing improvement in the doubles, of which this group was almost exclusively composed, e.g., *George Wells*, crimson-carmine; *Lord Clarendon*, orange-salmon; *Miss Jessie Pope*, blush pink, very fine; *Miss Mary Pope*, pure white; *Countess of Dartmouth*, blush; *Duchess of Norfolk*, amber; and *Mrs. W. H. Edwards*, blush pink.

A charming group of Gloxinias from Messrs. John Peed and Son was well set up. Some spotted varieties and some good self-coloured sorts were pleasingly disposed among Ferns, *Asparagus*, and Palms.

*Begonia Gloire de Lorraine*, from M. L. J. Draps-Dom, Laeken, Brussels, Belgium, was shown in fair form, the journey having evidently told against the plants.

Messrs. Sander and Sons had a pretty lot of *Anthuriums*. *A. schertzianum* var. *Crimson King* and var. *Model* were fine. *A. rothschildianum* var. *nobilior* is also a very good plant. These stood in a groundwork of *Maidenhair Fern*.

A specially fine lot of brightly-coloured Gloxinias was exhibited by Messrs. H. Cannell and Sons. There were four sorts—a good crimson, a good white self, and two pretty white-edged sorts, one with a purple ground, and the other a crimson-scarlet ground. Ferns, Palms, and Begonias added attractiveness to the display. Cacti from the same firm afforded considerable pleasure to the large number of enthusiastic admirers of these curious plants visiting the show. This was a thoroughly representative display. *Echinocacti*, *Cereus colubrinus*, *C. Baumannii*, and a host of other subjects were splendidly staged.

A fine example of *Pandanus graminifolius* was exhibited by M. L. J. Draps-Dom, and excited much interest.

A group of well-grown plants of the *Star Cinerarias*, from Messrs. Webb and Sons, Wordsley, Stourbridge, was a fine feature, the colours being pleasingly diverse and the plants freely flowered.

Messrs. James Carter and Co., High Holborn, London, had a grand display at the Embankment entrance. The stellate *Cinerarias*, *Verbenas*, *Stocks*, *Spiraeas*, *Calceolarias*, seedling *Carnations*, *Gloxinias*, alpine plants, and Japanese pigmy trees all contributed to make a really fine exhibit. Good quality throughout characterised the different plants.

Gloxinias from Messrs. John Laing and Sons were well shown. Plants with large flowers of good form and colour, nicely arranged, made an attractive exhibit.

*Calla elliotiana* from Mr. N. L. Cohen, Bound Oak, Englefield Green, Surrey, was a fine feature, large flowers on well-grown plants.

*Streptocarpuses* from the Right Hon. Lord Aldenham, Elmtree, Herts (gardener, Mr. E. Beckett), were of much interest. A large bank of well-grown plants, freely flowered, and all unpleasing shades of colour deleted, made a very fine feature.

Mr. W. J. Godfrey, Exmouth, Devon, made an attractive display of show, regal, and fancy *Pelargoniums*. Arthur Bouchier, Mary Godfrey, and Gretchen were among the many good things to be seen. A new bedding zonal, *Duchess of Cornwall* (a blush pink), was a pretty addition to these flowers.

Mr. H. J. Jones, Ryecroft Nursery, Lewisham, S.E., showed both double and single Begonias and a fine mound of *Verbenas*. V. Miss Ellen Willmott was conspicuous. Sweet Peas were seen in grand form and pleasing variety, all the best of the new sorts being represented. These were daintily set up. Countess Spencer, Miss Willmott, Dorothy Eckford, and Hon. F. Bouverie were very fine. Zonal *Pelargoniums* in handsome bunches were displayed, as were all the better show, fancy, and regal *Pelargoniums*.

Cut zonal *Pelargoniums* from Mr. Vincent Slade, Staplegrave Nursery, Taunton, made an attractive exhibit. There were fifty bunches nicely set up in charming variety. The individual pips were good and the colours excellent, and altogether the display was commendable.

The Ranelagh Nurseries Company, Leamington Spa, made a pretty group of foliaged plants that included their interesting *Asparagus myriocladus*, which increases in favour. *Crotons*, *Caladiums*, and other plants helped to make an attractive group.

Messrs. John Laing and Sons' group of *Streptocarpus* was much admired. There were many new breaks in colour and markings that commended them to those who have a liking for these flowers.

The pigmy trees from Messrs. Barr and Sons, Covent Garden, were in a special pavilion, which was thronged with visitors. The trees, varying from twenty to one hundred and forty-eight years of age, created much interest, and satisfied those who at first were incredulous.

The display in the pavilion of Messrs. Sutton and Sons, Reading, was quite a feature of the show. The *Star Cinerarias* made a beautiful bank at one end. Then there was a handsome group of *Calceolarias*, somewhat compact perhaps in appearance, yet very fine notwithstanding. *Gloxinias*, too, were excellent. Spotted, margined, and self-coloured flowers were all very good indeed. Tuberous-rooted Begonias also received their due share of attention, and Messrs. Sutton's strain of seedlings was satisfactorily exemplified. This group was arranged in a special tent, and was most attractively set up. The different plants were shown in masses, the outline of the group was undulating, so that the result was all that could be wished. Mirrors arranged at the back and sides of the tent added still more to the effect.

From Messrs. James Veitch and Sons, Limited, Chelsea, there was a beautiful group of *Streptocarpus*, *Kalanchee*, *Schizanthus wisetonensis*, *Rehmannia angulata*, &c. The *Streptocarpuses* were displayed in distinct shades of colour, and in this way the public appeared to appreciate them. Fine examples of *Lobelia tenuior* were well set up, and showed the value of this plant. The *Schizanthuses* were seen in most delightful shades of colour.

#### HARDY PLANTS AND FLOWERS.

Messrs. Barr and Sons, Covent Garden, we do not hesitate to say, have never before set up an exhibit displaying such good taste, attractive arrangement, and striking beauty as upon this occasion. Much variety well disposed was the order here, and we record the fact with pleasure. Everything was in masses. *Primulas*, *Poppies*, and the inimitable Spanish *Irises* made a big show alone. *Paeonies* of the early officinalis type were also abundant, while of the more unusual things *Iris susiana* made a display unequalled in its

picturesque beauty. Lilies and *Ixia* blended together; the ever-admired *Lilium candidum* was without spot or blemish; and the St. Brigid Anemones were most showy, and Oriental Poppies made a gorgeous display. Of rare things *Fritillaria Kamschatica* (the black Lily) was fine; *Dianthus alpinus*, very good; *Ourisia coccinea*, a delightful feature; with *Cypripedium montanum*; *Iris gracilis*, a charming plant; *Iris nigricans*, and *Conandron ramondioides*, with a pretty lot of alpinas, completed a most interesting array of the choicest hardy things.

Mr. R. C. Notcutt, Ipswich, staged the more showy of flowers in plenty. Poppies, Peonies, Flag Irises, Pyrethrums, Lupins, *Heuchera sanguinea*, very good; *Achillea mongolica*, *Cheiranthus alpinus*, *Phlox canadensis*, and *Cheiranthus Allionii*, a fine orange, were among the most conspicuous. *Papaver orientale* Lady Roscoe is a fine addition, brilliant in colour, bold and erect in growth, and handsome in flower.

Messrs. G. Stark and Son, Ryburgh, Norfolk, had *Viola Royal Sovereign* prettily arranged in a group. The flowers are very fine.

The Guildford Hardy Plant Nursery (proprietor, Mr. A. R. Upton) set up a characteristic group of alpinas on rockwork, in which *Saxifragas*, *Thymus*, *Sempervivum arachnoideum*, the charming *Globularia cordifolia*, *Gentiana verna*, *Asperula nitida*, *Anthyllis montana*, a fine rock trailer, and *Edraianthus serpyllifolius*, very beautiful, with Bog Primulas and hardy *Cypripediums*, were some of the most interesting.

The hardy plants from Mr. G. Reuthe, Keston, Kent, were a most engaging lot and beautifully arranged, and in view of the fact we thought the presence of semi-hardy shrubs undesirable. *Sarracenia flava*, the hardy *Cypripediums*, the very rare *Orechis hircina* and *O. fusca* in lovely variety; *Dianthus alpinus*, *Mertensia echioides*, very fine; *Primula Sikkimensis*, the rare rosy crinidron *Rhodothamnus Kamschaticum*, and *Crinodendron Hookeri*, with *Ourisia*, *Ramondia*, hardy *Sarracenas*, and *Iris tenax major* were among the best, and sufficient to satisfy the most ardent enthusiast.

The exhibit from Mr. M. Prichard, Christchurch, Hants, contained the more showy things generally. There were masses of single and double Pyrethrums, Oriental Poppies, towering spikes of *Eremuri*, yellow Lupins, *Incarvillea*, Globe Flowers, Flag Irises, and other showy flowers galore. Of rare things *Pinguicula Reuteri*, *Thalictrum pubescens*, *Potentilla ambigua*, and *Ajuga Brockbankii*, a fine blue, were most noticeable.

Messrs. Richard Smith and Co., Worcester, had a rich display of Spanish Irises, Tulips, early *Gladioli*, *Lilium candidum*, and St. Brigid Anemones; and from Mr. G. Kerswell, Exeter, came a fine basket of *Gentianella*.

Messrs. Paul and Sons, Cheshunt, had Peonies, Flag Irises, Trollius, Lupins, &c.

Messrs. J. Carter and Co., Holborn, showed a small rockery exhibit of dwarf alpinas, *Saxifraga*, *Linaria*, *Anthemis Aizoon*, *Thrift*, *Ourisia*, *Funkias*, and other things. *Incarvillea* and *Saxifraga pyramidalis* were prominent plants.

Columbines of a capital strain came from Messrs. Dobbie and Co., Rothesay. Many beautiful colours were included.

Mr. B. Ladhams, Southampton, had a most showy group, in which Lupins, single Pyrethrum, *Heuchera*, perennial Cornflowers, Geums, Flag Irises, and the like made a good show. Large masses of each were well disposed.

From Messrs. James Backhouse and Son, York, there was an exhibit of more than ordinary interest. The orange double varieties of the Cambrian Poppy, a beautiful mass of *Aquilegia glandulosa*, *Ramondias* here and there on rocky slopes, the richly-coloured *Ourisia*, hardy *Cypripediums*, with *Saxifragas*, *Androsaces*, *Orchises*, *Gentians*, the rich violet of *Pinguicula*, and a lovely mass of *Dianthus neglectus* were among the most notable.

Alpinas from Messrs. Cutbush and Sons, Highgate, were a feature. At once we noted *Ramondia pyrenaica alba*, a fine colony in flower; *Haberlea rhodopensis*, *Edraianthus serpyllifolius*, *Lithospermum canescens*, *Gentiana verna*, and *Aquilegia*

*Stuarti* were among the most beautiful. The double crimson *Pompador* *Primrose* was very fine.

From the Craven Nursery, Clapham, Lancaster, Mr. R. J. Farrer brought a fine array of good alpinas. *Gentians*, *Ramondias*, a rare *Saxifraga* in *S. odontophylla*, *Primula Munroi*, *Trilliums*, *Oxalis enneaphylla*, very good, and *Primula farinosa*, a fine mass that defies description were there.

Mr. H. C. Pulham, Elsenham, Essex, had many choice things on a rockwork exhibit. *Onosma echioides*, *Columbines*, *Phlox Vivid*, *Achillea argentea*, *Genista pilosa*, *Geums*, *Rock Roses*, *Campanula pulla*, and *Aster alpinus roseus* were notable things.

The Misses Hopkins, Mere, Cheshire, had a pretty exhibit, in which the pink Daisy Alice, with *Trollius*, *Primula sikkimensis*, *Haberlea*, *Heuchera*, hardy *Cypripediums*, and the crimson *Pompador* *Primrose* were among other good plants.

Messrs. J. Cheal and Sons, Crawley, on a nicely-arranged rockery, exhibited many choice things. *Primula japonica*, *Lithospermum canescens*, and *L. prostratum*, *Saxifraga leptophylla*, a mass of white; hardy *Cypripediums*, *Campanula muralis*, very charming; fine rosettes of *Sempervivum*, a capital plant in *Lupinus polyphyllus albus*, and *Saxifraga pyramidalis* were finely shown.

The group of hardy perennials from Mr. Amos Perry, Winchmore Hill, was very fine. The masses of colour and also the variety were excellent, reflecting the highest credit upon the taste of those in charge of the arrangement. *Incarvillea Delavayi*, with a score of spikes bearing their *Gloxinia*-like flowers; Perry's variety of *Phlox canadensis*, *Ixiolirion tataricum*, a fine bit of pale blue; *Orobis aurantiacus*, *Veronica hankeana*, *Geum Heldreichii luteum*, masses of Oriental Poppies, *Primula sikkimensis*, a glorious array of *Cypripedium acaule*, surrounding the even more lovely *Water Lilies* in pans; *Heucheras*, and the gorgeous *Papaver Mrs. Marsh*, *Peonies*, *Sarracenas*, towering *Eremuri*, the rare *Chamelirium carolinianum*, and the pretty *Lithospermum intermedium* were among the best in a group that has never been surpassed at these shows.

Messrs. Cutbush and Sons, Highgate, had a large group, in which *Lilies* and *Eremuri* played a most important part. The latter were chiefly *E. himalaicus*, and constituted a feature of the group. Of the *Lilies* we noted *L. colchicum*, *L. Brownii*, *L. Hansoni* (a very fine lot), *L. giganteum*, and many forms of *L. davuricum*. In addition there was a general collection of hardy *Cypripediums* in some dozen sorts, including the rare *C. californicum*. *C. spectabile* was also very fine. *Water Lilies* were a choice lot and in many varieties.

The richly-coloured flowers of the St. Brigid Anemones, with the intense-coloured King of Scarlets variety, from Messrs. Gilbert and Son, Bourne, Lines, made a dazzling display.

Some very fine Poppies were sent by Mr. Godfrey, Exmouth, and we noted *Black Prince*, *Masterpiece* (pink, with black spots), *Loveliness* (similar), and *Harmony* (a deeply-coloured flower) as among the best. The flowers were well disposed and very showy.

Messrs. Wallace and Co., Colchester, in an extensive exhibit, set out to good advantage, had large masses of *Eremuri*, such as *E. himalaicus* and *E. robustus*, in company with *Flag Irises*, *Ixiolirion Pallasii*, *Fortin's Lily of the Valley*, *Lilium colchicum* and *L. Hansoni* (a dozen spikes of each), the variegated *Iris pallida*, pretty groups of *Heuchera*, *Lilium rubellum*, *L. longiflorum giganteum*, and *L. testaceum* towering above. Delightful colonies of hardy *Cypripediums*, of which *C. occidentalis* was most charming; *Lilium Brownii*, *L. Marhan Miss Willmott* (very fine), a wealth of *Columbines*, *Calochorti*, and *Ixia*, in company with *Cushion* and *Flag Irises*, made a grand display.

A lovely group of St. Brigid Anemones was set up by Messrs. Reamsbottom and Co., Alderborough Nursery, Geashill, King's County, Ireland. The gorgeous colours of these flowers impelled admiration from all who saw them.

Messrs. George Jackman and Sons, Woking, had large masses of *Flag Irises*, *Dodecatheon*, *Globe*

Flowers, Oriental Poppies, and *Primula japonica*. *Ramondias* and the lovely *Gentiana verna* were seen to advantage.

Messrs. T. S. Ware, Limited, Feltham, had a good display of the more showy hardy plants, in which *Eremuri*, *Ourisia coccinea*, *Watsonia Ardernei*, *Irises*, *Day Lilies*, *Peonies*, *Ostrowskia magnifica*, and other good plants were seen.

Peonies and Pyrethrums from Messrs. Kelway and Sons, Langport, made a rich display. The former chiefly were of the tree section, and in many beautiful shades of colour, with large blossoms. Of Pyrethrums we noted *Grizzel* (carmine), *Warrior* (crimson), and *Devonshire Cream*, all singles; of doubles, *Lord Rosebery* (crimson) and *Alfred* were, perhaps, the best.

#### ROSES.

At the north end of the great tent Mr. Charles Turner, Royal Nurseries, Slough, had a handsome group of *Roses*. The plants were very freely flowered. There were grand specimen plants of *La France*, *Juno*, *Mrs. John Laing*, *Ulrich Brunner*, *Souvenir de Mme. Eugene Verdier*, *L'Innocence*, *Camille Bernardin*, and a charming assortment of *Polyantha* and other garden *Roses*. The disposition of the group was all that could be desired.

From Messrs. W. Paul and Son, Waltham Cross, Herts, there came a really magnificent display. The pretty *Waltham Rambler* was in fine form, as were *Queen Alexandra*, *Dorothy Perkins*, *Marie Jacquier*, and *Crimson Rambler* among the garden rambles. Grand plants of *Gloire Lyonnaise*, *Mrs. Sharman Crawford*, *Mme. Lacharme*, the new *Etoile de France*, *Duchess of Albany*, *Frau Karl Druschki*, *Boadicea*, and many other lovely things were shown. This was a beautiful exhibit, and much admired. The *Veitchian Cup*, awarded for the best arranged exhibit in the show, was given to this group.

*Hobbies*, Limited, Dereham, made an attractive exhibit. The beautiful rambling *Rose Dorothy Perkins* was shown growing freely in pots, and also in a cut state; *Crimson Rambler* was in evidence, and many charming flowers of other types. *Souvenir de Pierre Notting*, *Bridesmaid*, *Golden Gate*, *Mme. Cusin*, *Florence Pemberton*, and *White Maman Cochet* were a few of many good things. *Sweet Peas* in variety bordered this group.

Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, had a pleasing exhibit of plants as well as cut blooms. Garden *Roses* and those of a decorative character were shown in good form. *Wichuraiana rubra*, *Queen Alexandra*, *Leuchstern*, *Crimson Rambler*, and others made a brave show. Good exhibition sorts were also very freely displayed.

Mr. George Mount, Canterbury, had an excellent display. *Crimson Rambler*, *Leuchstern*, *Electra*, and *Thalia* among the ramblers, *Caroline Testout*, *Catherine Mermet*, *Mrs. John Laing*, *La France*, *Mrs. W. J. Grant*, and numerous examples of exhibition *Roses* combined to make a most effective group.

Messrs. Benjamin R. Cant and Sons, The Old Rose Gardens, Colchester, made a very good exhibit at one end of the long tent. *Roses* of many types were prettily displayed, and all that is best in them well illustrated. *Austrian Yellow*, *Austrian Copper* (both charming singles) were much admired; *Blush Rambler*, *The Garland*, *Leuchstern*, and many other delightful varieties were in excellent form.

A delightful lot of decorative *Roses* came from Messrs. Thomas Ware, Limited—*Crimson Rambler*, *Claire Jacquier*, *Helene*, and *Dorothy Perkins*; in fact, a display of all types of the flower. They were well set up, so that the good qualities of each were properly shown.

Messrs. G. Paul and Son, Cheshunt, made one of their interesting displays. Climbing as well as exhibition *Roses* were freely displayed, and these were attractively set up in a group at one corner of the large tent. *Crimson Rambler* was dotted here and there, and *Dorothy Perkins*, too, was very pretty. *Wichuraiana rubra*, *Blush Rambler*, *Tea Rambler*, *Psyche*, and an endless variety of good things were

to be seen. The new Hybrid Tea David Harum was much admired, as were also Lady Battersea and Fran Karl Druschki.

#### TREES AND SHRUBS OUT OF DOORS.

The most beautiful group among the trees and shrubs came from Messrs. Fisher, Son, and Sibray, Limited, of the Handsworth Nurseries, Sheffield. It was a break away from the monotonous traditions of the past. The plants were grouped as if they were there permanently, and this happy thought resulted in a pretty picture; here a dash of colour from some Rhododendron or Azalea, and there the brightness of a variegated *Dimorphanthus mandshuricus*. The silvery argentea has been shown on more than one occasion, but *aureo-marginatus* was shown for the first time. It is a beautiful shrub, the leaves of a soft green, splashed with creamy yellow. Another rare shrub was *Glyceria spectabilis variegata*, a bright and pretty species, and those who care for Irish Ivies will welcome the charming *Hedera himalaica*, a graceful Ivy, with glistening green leaves that remind one of those of *amurensis*, but smaller. A bush of this will give a fresh interest to the garden. *Quercus concordia*, *Q. handsworthensis*, Maples of many sorts, a beautiful variegated Privet, *Ligustrum excelsum superbum* (green margined and splashed with yellow), masses of *Weigela Eva Rathke*, a glorious mass of *Rhododendron Pink Pearl*, and *R. Mrs. Charles Butler*, a beautiful variety of soft pink colouring, and in graceful clusters. A group of the *Watsonia Ardernei* gave a dash of purest white amongst the greens of the Oaks and the crimsons of the Maples.

From Messrs. J. Cheal and Sons, Crawley, Sussex, a lovely group of plants was set up. Azaleas, Viburnums, Rhododendrons, Lilacs, Cytisus, Magnolias, and other trees and shrubs were conspicuous. Acers in charming variety, the golden Oak (*Quercus concordia*), also *Q. Souvenir de Franz van der Baur*, *Q. pedunculata nigra* (the new purple Oak), and many other choice sorts. Cupressus in variety were well shown. *C. lawsoniana Wisselii* (a pretty form), *Picea pungens glauca* (the blue Spruce), and the golden Japanese Maple (*Acer japonicum aureum*), with many other kindred subjects, made a grand display.

Messrs. Richard Smith and Co., Worcester, showed a very interesting group of trees and shrubs, a large number of choice sorts being seen. We felt it was a great pity that many of the good things here were unnamed.

The group of Japanese Maples from Messrs. Thomas Cripps and Son, Tunbridge Wells Nurseries, was an excellent representation of these hardy trees. Diverse forms and lovely tones of colour were there. This firm is noted for its collection of these trees, and the present display was of a high order of merit.

The best display of Messrs. Thomas Cripps and Son, Tunbridge Wells, however, was at the Embankment end of the gardens. This was, indeed, a fine effort. Japanese Maples in grand form and greatly diverse were superbly displayed. Choice shrubs also call for special notice, as these were in capital form and condition. The new Acer, *A. palmatum septemlobum purpureum macrophyllum*, is a beautiful plant.

Choice hardy decorative plants for the outdoor garden came from Messrs. John Laing and Sons, Forest Hill. Japanese Maples, Ivies, and an assortment of beautiful trees and shrubs were shown. Clematises, too, were staged here and there.

A pretty collection of Iris was shown in square pans by Messrs. James Veitch and Sons, Limited, Chelsea. There were many good Flag Irises. Magnificent examples of *Eremurus himalaicus*, *E. Bungei*, *E. robustus*, *E. r. elwesianus*, and others were disposed between choice shrubs. In the background *Sciadopitys verticillata* was splendidly represented growing in tubs. *Primula japonica* assisted to give a finish to this exhibit.

A bold arrangement of hardy ornamental outdoor trees and shrubs came from Mr. Russell, Richmond. The grouping in this instance was finely conceived, nothing stiff or formal being noticeable in the disposition of the different plants. The foliage was beautifully coloured, and there were contrasts and harmonies frequently very striking.

Japanese Maples, Ivies, Copper Beech, *Prunus Pissardi*, and others were seen at their best.

Japanese Maples were beautifully grouped by Messrs. W. Fromow and Sons, Sutton Court Nursery, Chiswick. The best of the newer sorts and a splendid collection of other proved varieties of merit were set up, and proved of considerable interest.

The clipped trees of Messrs. W. Cutbush and Sons—always a feature—were again in evidence on this occasion, some 200 specimens being displayed. Box and Yew were the two subjects requisitioned, and with them peacocks, rings, vases, dogs, chairs, serpents, pheasants, tables, and other designs were well done. This method of training trees and shrubs apparently appealed to many, judging from the interest evinced in the display.

A beautiful lot of *Araucaria excelsa glauca* from Messrs. James Carter and Co. was a feature of interest. The plants were small, but were wonderfully well grown.

Messrs. W. Fromow and Sons, Chiswick, set up a good group of Rhododendron. Lord Roberts, with a groundwork of hardy plants for effect. The new Cape Daisy, *Marguerite Queen Alexandra*, a pretty Anemone-flowered sort, is a plant of considerable value when used for cut flowers. There was a nice batch of this plant.

#### STOVE AND GREENHOUSE.

Messrs. James Veitch and Sons, Limited, Chelsea, set up a very bold and handsome group of miscellaneous foliage plants. Specimens of the



THE VEITCHIAN CUP.

(Won by Messrs. William Paul and Son.)

best Caladiums, as Mme. John Box, Roncador, Baron A. de Rothschild, Rose Laing, B. S. Williams, Sir Henry Irving, and Harry Lovatt were most conspicuous. Crotons in charming variety, *Nepenthes*, *Alcasias*, *Anthuriums*, *Marantas*, and many other choice plants combined to make a most attractive display.

A gorgeous show was made by a group of standard zonal *Pelargoniums* exhibited by Leopold de Rothschild, Esq., Ascott (gardener, Mr. J. Jennings). The plants were profusely flowered, each one carrying large trusses of bloom. This was quite a welcome feature in the large tent. The front of the group was finished with Palms and Ferns in variety.

Messrs. William Bull and Sons, King's Road, Chelsea, displayed an interesting group of foliage plants. Tree Ferns formed the background, with *Crotons*, *Dracenas*, *Aralias*, *Nepenthes*, *Pandanus*, Ferns, and many other plants in front.

The group from Messrs. William Cutbush and Sons, Highgate and Barnett Nurseries, was, as usual, arranged in one corner of the large tent. Great taste and skill were displayed in the disposition of the plants. The new Rose, Dorothy Perkins, was there, and also *Crimson Rambler*. *Verbenas Maiden's Blush*, *Princess of Wales*, and *Ellen Willmott* were very fine. Of Malmaison

Carnations there were many handsome specimens, *Mercia*, *Lord Rosebery*, *Calyppo*, and *Duchess of Westminster* among others being in evidence. *Liliums*, *Hydrangeas*, *Azaleas*, *Calla elliotiana*, with a background of Palms, &c., completed this fine group.

Messrs. Richard Smith and Co., Worcester, had a most attractive exhibit of well-flowered Clematis, with a background of *Crimson Rambler Rose*. *Fairy Queen*, *Sensation*, *Lady Caroline Neville*, *Excelsior*, *Grand Duchess*, and *Gloire de St. Julien* were conspicuous examples. *Nellie Moser*, with reddish markings, was also noteworthy. A fine example of *Polypodium smithianum* was arranged in front of the group, as was also a good plant of *Pteris tremula smithiana*. This was in every sense a capital display.

From M. L. J. Draps-Dom came good examples of *Croton Souvenir de Laeken* and a superb plant of *Dracena Victoria*.

Mr. William Icton, Putney, S.W., made a grand bank of retarded Lily of the Valley. The plants were well grown, and the spikes of blossom very good.

An interesting group of Cacti was arranged by M. Frantz de Laet, Napier Road, Kensington, W. *Pilocereus senilis*, *Cereus giganteus*, and an assortment of many other interesting forms of the quaint and curious Cacti were set up in the open.

Mr. A. F. Dutton, The Nurseries, Bexley Heath, showed a delightful exhibit of Tree Carnations, most attractively arranged in tall vases. Among the varieties were *Fair Maid*, pale pink; *Floriana*, rose-pink; *G. H. Crane*, scarlet; *Gov. Roosevelt*, dark crimson; *Harry Fenn*, crimson; *Norway*, white; *Queen Louise*, white; *Mrs. Thomas Lawson*, perhaps the loveliest of all, rich cerise-pink. All these Carnations had long stems, thus enabling them to be shown to the best advantage. They formed quite a charming display of these ever-popular flowers.

#### FLORAL COMMITTEE.—NEW PLANTS.

A first-class certificate was given to:

*Gloriosa rothschildiana*.—A remarkable addition to this small genus. The flowers are of a crimson-lake tint, the segments bordered with gold. Segments 3 inches long, contracted and involute at the base, where the colour is green merging into gold. The anthers are golden. Leaves 4 inches to 6 inches long, tapering, with tendrils at the end, and of clear Pea green colour. The richly coloured flowers span nearly 6 inches. A very beautiful and highly ornamental climber. From the Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Hill).

An award of merit was given to each of the following:

*Azalea mollis* × *sinensis* *Ellen Cuthbert*.—A good and distinct variety, with orange coloured flowers flamed with Indian red in the upper petals. A very free bloomer. From Messrs. R. and G. Cuthbert, Southgate.

*Lupinus polyphyllus roseus*.—A very pretty and distinct rose-pink variety of this useful perennial. The colour varies from pale to deep pink. It is said to come fairly true from seed. From Messrs. J. Cheal and Sons, Crawley.

*Begonia Lady Curzon*.—A double-flowered variety. The handsome, well-formed flowers are about 5 inches across, and of a deep salmon colour with orange shade. A very telling and shapely flower. From Messrs. Blackmore and Langdon, Bath.

*Dodecatheon Dame Blanche*.—In all probability this belongs to *D. Meadia*, but it is of bolder growth. The flowers are white, the segments having a dark base. From Messrs. Wallace and Co., Colchester.

*Campanula rupestris*.—A very interesting and charming alpine. The radical leaves are petiolate, roundly ovate, slightly crenate, hoary, and covered with tomentum. Flowering stems procumbent, or nearly so; leaves roundish, stems 6 inches to 8 inches long. The flowers are erect, pale bluish with violet stripes in the early stages internally, one to three appearing on pedicels 1 inch long from every leaf axil. An ideal rock plant in every way and a most profuse bloomer. From Messrs. William Cutbush and Sons, Highgate.

*Rose Perle de Neige*.—This is best described as a *Polyantha* type of flower with the rambler habit of growth. The flowers are pure white, prettily formed, and freely produced. From Messrs. William Paul and Son, Waltham Cross.

*Begonia Avalanche*.—A very fine double variety with flowers 6 inches across. The petals have a deeply undulated margin. The flower generally is of an imposing character. From Messrs. Blackmore and Langdon, Bath.

*Wahlenbergia (Edraianthus) scryphillifolia*.—A nearly prostrate alpine from Dalmatia with intense violet or royal purple erect bell-shaped flowers nearly 1 inch across. The plant belongs to the Campanula family, and is one of the finest rock plants extant. It is not a novelty in the strict sense, yet far too little known and grown at the present time. The plant was seen in many collections. From R. Farrer, Esq., Ingleborough, Lancaster.

*Pelargonium Lady Decies*.—A decorative variety, with palest pink blooms of fair size. A dark blotch is seen on each of the two upper petals. A free grower and an abundant bloomer. From Mr. Charles Turner, Slough.

*Begonia Mr. W. H. Edwards*.—A double-flowered variety of the finest form, the flowers white, suffused with palest pink. Very handsome and telling. From Messrs. T. S. Ware, Limited, Feltham. Award of merit.

*Pteris Binoti*.—This species was discovered in Brazil, and would appear to possess some affinity to *P. ludens* and *P. palmata*. It is the latter generally that the newcomer most resembles. The basal fronds are palmate, the upper fronds more decidedly fingered, and the lobes deeply incised and acutely pointed. The plants shown were about 1 foot high. From Messrs. E. G. Hill and Son, Edmonton.

*Lupinus polyphyllus* (strain).—A strain of bicolor, and in some instances nearly tricolor, forms of this plant. From Messrs. Barr and Sons, Covent Garden.

#### FRUIT AND VEGETABLE COMMITTEE.

No awards to new fruits or vegetables were made by this committee, and the exhibits were not numerous. Messrs. Rivers and Son of Sawbridge-worth exhibited a grand lot of Peach and Nectarine trees in pots, carrying highly-coloured fruits. The display consisted of about forty trees, and was a striking feature of the show. Of the Nectarines Cardinal (of which a basket of fruits was shown in addition to those on the trees) is a fine fruit of good colour, and said to be the earliest of all Nectarines. Peaches Duke of York and Duchess of Cornwall were included in this group; both are Peaches of recent introduction. The former is a highly-coloured fruit, of splendid flavour and excellent for forcing. Peach Duchess of Cornwall is primrose colour, striped and blotched with red. The flesh is juicy and melting, and has a smack of Nectarine flavour. Plum Curlew, plants carrying splendid crops of medium-sized fruits, attracted much attention. Messrs. Rivers' exhibit of fruit trees in pots at the Temple show is one that always commands attention. The trees are models of good culture, and serve to show how well fruit trees can be grown in pots.

S. Heilbut, Esq., The Lodge, Holyport, Maidenhead (gardener, Mr. Camp), exhibited Grapes, Cherries, and Strawberries in pots. The Vines were carrying good bunches. Two plants each of Black Hamburg, Foster's Seedling, and Gradiska (a white Grape similar to Foster's Seedling) were shown. Of Cherries, two plants each of Early Rivers' and Guigne d'Annonay, all carrying fine crops of tempting fruit, were set up. A number of plants of Strawberry Royal Sovereign had good crops of well-ripened fruit of good size.

Mr. T. R. Cuckney, Cobham Hall, Gardens, Gravesend, showed some splendid fruits of Strawberry Royal Sovereign in boxes, forty-eight fruits in each box, some of the finest we have seen this season.

Mr. C. Ritchings of Highlands Catel, Guernsey, had some good Melons. Among them were Silver King, a netted variety, somewhat similar to Hero of Lockinge; Best of All, a large yellow, smooth

skin; and Goldfinder, a pale-skinned variety. He also sent Tomatoes. Of these Brinn's Superlative, Winter Beauty, and Lawrenson's No. 3 were all good, smooth varieties.

From the Imperial Cold Storage Company, Tottenham, a collection of Apples, all in good condition, was exhibited.

Mr. G. Hobday of Romford showed his giant Rhubarb, pulled from the open ground, the stalks being of immense size.

Messrs. Sutton and Sons had a collection of Melons, among which Hero of Lockinge, which has long been one of the first favourites for market culture, was prominent.

Sir A. Henderson, Bart., M.P., Buscot Park, Faringdon, Berks (gardener, Mr. W. L. Bastin), showed a very fine collection of vegetables and Tomatoes. The Currant Tomatoes in pots carried long bunches of bright red fruits. Of other Tomatoes, Sutton's Princess of Wales, Magnum Bonum, and the yellow Golden Gage were good. There were several sorts of Peas, of which Duke of Albany, May Queen, and Early Giant were worthy of note. Of Beans, Sutton's Reliance and Tender and True were very good; of Cauliflowers, Purity and Magnum Bonum, though small, were good; and of Broccoli, Satisfaction and Latest of All were well shown. Of four sorts of Cabbage, Sutton's Early Market appeared the best; of Carrots, Sutton's Inimitable Forcing was a good short and Favourite an intermediate variety. Potatoes included good examples of Early Ashleaf, Sharp's Victor, and May Queen; Turnips included Sutton's Snowball and Early Milan. Of several sorts of Cucumbers, Sutton's Prize-winner was the best. Cabbage Lettuces, Radishes, Mushrooms, Rhubarb, &c., were all well shown.

Mr. S. Mortimer, Farnham, made a good display of Cucumbers and Tomatoes, having about eighteen dishes of the latter and eleven boxes of Cucumbers, of which Tender and True was one of the best, and Aristocrat, a new variety, looked very promising. Some growths of this showed it to be a wonderful cropper. Sutton's A I, Lord Roberts, Progress, and others were shown. Tomatoes Best of All, a large, round, smooth variety is evidently a good one; Peerless, Sutton's A I, Sutton's Satisfaction, and Winter Beauty were good fruits.

Messrs. Cannell and Sons, Swanley, had a grand exhibit, which included twenty-four varieties of Potatoes (new tubers) all in fine condition, Snow-drop and New Perfection being good white Kidneys; Mr. Breeze, a clean pink-skinned variety; Crimsen Beauty, red skinned; Early Purple, very dark; Factor, large tubers; Springfield, round white; King Edward and Reading Russet were good; in fact, the whole collection was remarkably fine for so early. Several sorts of Peas were shown. Duke of Norfolk, King Edward, and English Wonder were noted among the best. Cabbage Cannell's Defiance, evidently a fine early variety, and Tomato Cannell's Perfection, a round, smooth fruit, were noticeable. Cucumber Cannell's Favourite should make a good market sort. Carrots, Cauliflower, Turnips, Broad Beans, Scarlet Runners, and other Beans and Marrows were all well staged.

Mr. R. Stephenson, Burwell, Cambridgeshire, sent some very fine Asparagus.

Mr. Harwood of Colchester showed six bundles of fine quality Asparagus.

Mr. W. J. Godfrey, Exmouth, was also an exhibitor of excellent Asparagus.

From Lady Warwick's College, Studley Castle, Warwick, was sent an interesting collection of vegetables, which comprised early Potatoes, some fine heads of Late Queen Broccoli, Vegetable Marrows, good early Cabbage, Tomatoes, Radishes, &c., all grown by the girl students under the supervision of Miss Croke, the head gardener, who, assisted by some of her staff, staged the collection in excellent style.

Mr. J. F. Groves of Horn, Surrey, exhibited plants of Potato Eldorado, also tubers with shoots ready for taking off for propagating purposes.

#### MISCELLANEOUS.

Messrs. George Boyes and Co., Aylestone Nurseries, Leicester, showed a group of Tree Carnations

in several varieties, both plants in pots and cut flowers in vases. Among the varieties shown were Hon. A. Lyttelton, salmon; Lord Kitchener, dark crimson; William Robinson, scarlet; Alma, dark crimson; Edna Lyall, blush pink; Lady de Trafford, salmon-scarlet; A. G. Steel, scarlet; and Mark Twain, blush, splashed with red.

Messrs. Storrie and Storrie, Dundee, showed a very bright group of Auriculas, hardy Primulas, and Polyanthuses. Yellow in various shades was the prevailing colour, and many good varieties were on view. The exhibit, too, was attractively set up.

Messrs. Dobbie and Co., Rothesay, N.B., exhibited a most attractive display of Pansies and Violas. The back of the group consisted of sprays of Violas, and very beautiful they were, the flowers large, and of rich, distinct colouring. Single blooms of the fancy Pansies were arranged along the front.

Mr. Alfred Young, Elgin, N.B., showed a small rockery of alpine plants.

Sweet Peas were well shown by Mr. C. Aubrey Watts, 15, Leadenhall Street, E.C.

Messrs. Hogg and Robertson, Dublin, had a delightful group of Tulips, gorgeously-coloured flowers, that made a brilliant show. Darwin, Cottage, and Gesner varieties commingled in harmonious association, and the result was all that one could wish.

Messrs. Alex. Dickson and Sons, Newtownards, exhibited Tulips in great variety. The effect of this group was very striking. Rich and sombre-coloured flowers were in such proportions and so placed as to enable all to be seen at their best. We need not individualise, for once to commence would mean never to cease if justice were to be done.

Mr. R. Irwyn Lynch, curator of the Botanic Garden, Cambridge, exhibited a group of hybrid Gerberas, many of them of lovely shades of colour. These created a great deal of interest, as being a most noteworthy and successful attempt at hybridisation in a new direction. The flowers varied in size, some being 3 inches or 4 inches across, while others were barely 2 inches. Some of the most remarkable were Brilliant, large, vermilion; Mayflower, large, rosy buff; a large unnamed yellow; Evangeline, smaller, a lovely pink; Hiawatha, small, a beautiful soft rosy red; and cantabrigdensis, varying from white to rich pink. Mr. Lynch is to be heartily congratulated upon such a successful attempt at hybridising a genus that is at present very poorly represented in gardens. The parents of these hybrids are from South Africa. Jamesoni and viridifolia played a most important part in their production; in fact, these two were the parents of most of the hybrids shown.

Mr. Robert Sydenham, Tenby Street, Birmingham, had a delightful exhibit of Sweet Peas in all the best varieties. They were prettily arranged in vases, and made a most attractive display.

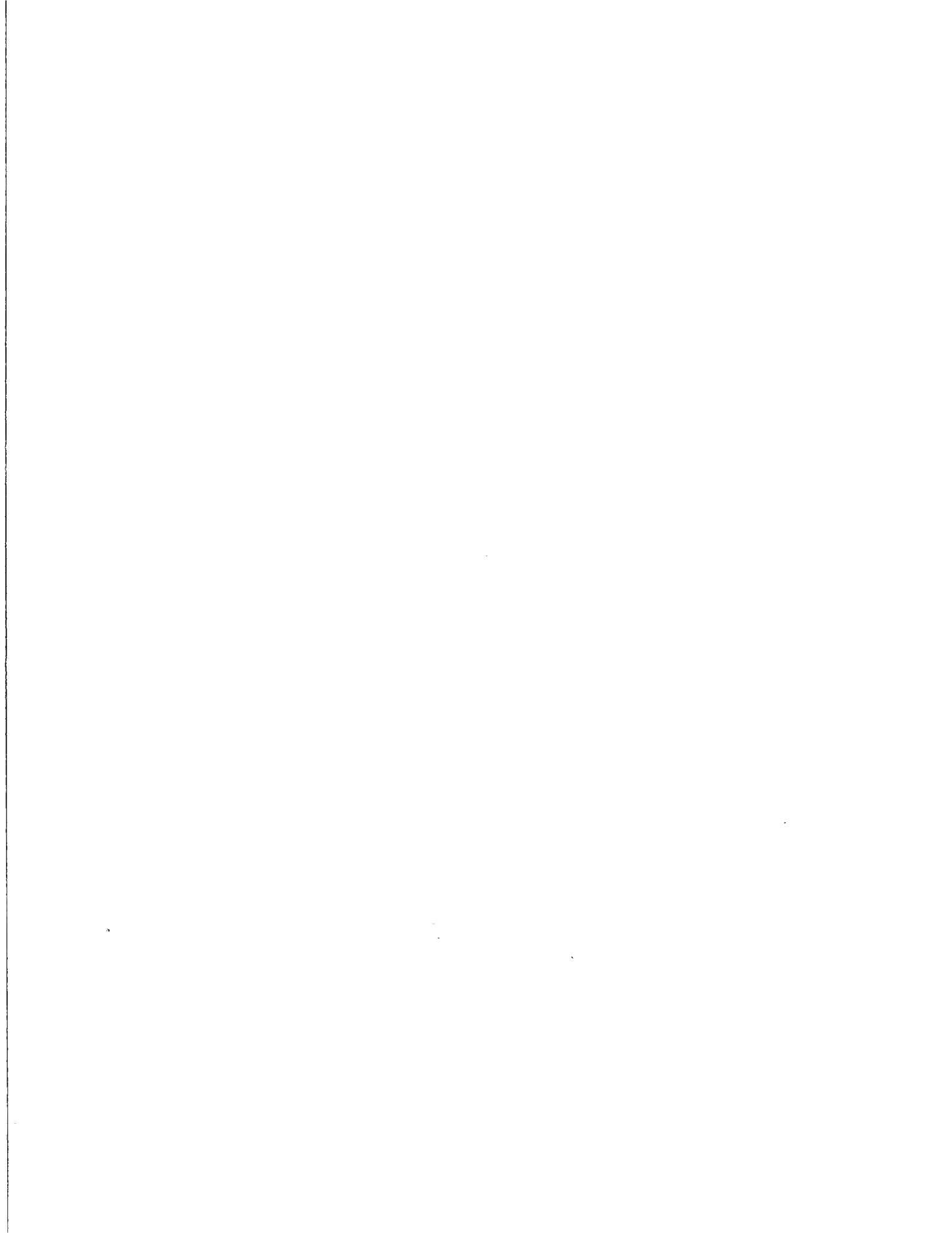
Messrs. Baker, Wolverhampton, showed Violas and Pansies in quantity, making a very attractive display. The Violas were very pretty, among them being Rose Noble, rich yellow; Mary Robertson, primrose; Seagull, white; Mrs. W. Waters, rich purple; and Colonel Plumer, pale purple. Fancy Pansies were largely shown. Greenery was tastefully arranged among the flowers, and a delightful display resulted.

Messrs. Jones and Sons, Shrewsbury, exhibited Sweet Peas in great variety as well as Spanish Irises, and a very pretty display resulted.

Messrs. Watkin and Simpson, Tavistock Street, Covent Garden, W.C., showed a very pretty group of hardy annual flowers, which comprised good strains of Mignonette, Collinsia, Schizanthus, Cornflower, &c.

**Obituary.**—We regret to hear of the death of Mr. William Kerr, the seed Potato specialist of Dumfries. Mr. Kerr died on Saturday last. He raised many excellent varieties of Potatoes, perhaps the best of them being Duchess of Cornwall, which beat Northern Star and other famous sorts in Mr. Williamson's Potato trials in Ireland.







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1804



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THE  
CENTENARY  
CELEBRATION,  
1904.



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WILLIAM MARSHALL



ALFRED H. PEARSON



GEORGE BENYARD, V.M.H.



JAMES HUDSON, V.M.H.



W. A. BILSLEY



# THE GARDEN

No. 1699.—Vol. LXV.

[JUNE 11, 1904.]

## THE BRITISH GARDENERS' ASSOCIATION.

**H**ELD in the Essex Hall on the 1st inst., the meeting was well attended, and resolved that the proposed association should become an accomplished fact. It is well to emphasise the point insisted upon by Dr. Masters, the chairman, that this association is not intended to be what is popularly known as a trades union. Far from desiring to promote antagonism, its aim will be to unite the common interests of employers and employed, and to recognise and help forward their mutual rights—trustworthy efficiency on the one hand, and on the other a just appreciation and adequate payment for work well done. Questions of wages, working hours, and other details of the kind naturally come within the scope of regulations having for their object the betterment of the gardener's position. Whatever there is to be said on these points in good horticultural establishments, whether private or commercial, at any rate, where an adequate staff of men is employed, there is not, as a rule, much room for complaint. In very many instances bothies—built with every modern arrangement for health and comfort—are provided for the accommodation of the employés, whose welfare is cared for with all kindness and consideration. The bad bothy system is now practically a fossil relic of antiquity.

There must always be rank and file in every profession. Some must remain, as it were, hewers of wood and drawers of water to their lives' end; nor need we flout at such because they possess greater strength of muscle than powers of mind. We could ill do without them in any walk of life. But it takes a man with both muscle and brains to rise to any responsible position, and the greater number of single-handed gardeners are called upon to exercise both. It might be a mistake to make hard and fast rules which would encourage men of this class to quarrel with their bread and butter; for it is an ominous fact that for one such situation advertised there are frequently fifty applicants. Two instances of this kind, which are by no means exaggerated, have come within our own knowledge during the last few weeks in different counties. To shut out the younger single-handed gardener, who is at the same time a "handy man," from the privileges of the association would be a pity, as thousands of capable men are occupying this position in the

smaller country houses and rectories throughout the land, with all honour to themselves and satisfaction to their employers. An agitation for higher wages than the £1 a week with a cottage, or its equivalent, which is the average rate for such posts, might be disastrous at the present juncture, when a reduction in expenditure is undoubtedly being made on all sides.

But we feel sure that there is room for much excellent work to be done in a quiet way by a National Gardeners' Association, if it advances soberly on right lines. One of its main objects should be to raise the status of the gardener in the upper ranks of the profession; and to that end such a co-operative society ought to be a very real help, by giving to the younger members that impetus which all of us need as a stimulus to the best efforts. Culture and self-improvement, and not merely a rise in salary, are, doubtless, the main factors in all social uplifting; and it cannot be too often or too strongly impressed upon young men that they are bound to be the architects of their own fortunes, for neither patron nor guild can bolster incompetence into an honourable position. But many an able man before now has not known where to turn to find a helping hand to real advancement in his calling; and herein lies one great advantage in being enrolled as a member of a powerful society. The establishment of a National Gardeners' Association, however, whilst it should ensure that the good man shall be in no danger of being left out in the cold, will also inevitably mean a sifting out of the chaff from the wheat.

Hitherto there has been no organised gardeners' society to which both employer and employed could apply to be put into mutual reliable communication; therefore both parties to a garden contract will surely be gainers by the new departure. Of late years educated men—and women—have taken up horticulture as a profession, and this fact in itself—though it may seem at first sight to tread unduly on the heels of competition—helps to raise the gardener's social status. As we have before pointed out in these pages, however, there is no occupation in which competent men in all grades of the craft are brought more closely or more pleasantly into contact with their employers, and the position of an upright, manly, and intelligent gardener, who respects himself and yet has the good sense not to expect impossibilities, will leave nothing to be

desired, for he will grow in time to be the trusted colleague and honoured friend of his employer.

## THE ROYAL BOTANIC SOCIETY.

WE quite thought the beautiful grounds of this society had been permanently given over to tea shops and fancy fairs, but we are agreeably mistaken. Through the efforts of the council, of Mr. Sowerby, the secretary; Mr. Hawes, superintendent of the gardens; and Mr. Gomer Waterer, secretary of the horticultural section, the exhibition which has been so largely advertised was reminiscent of the days when the grassy slopes and glades of these restful grounds were thronged with visitors intent, as the crowds at the Temple show, on profiting by the new plants and groups which filled, in the days gone by, one of the largest tents ever erected for a horticultural display. A show at the Botanic Gardens was an event in the London season, and we are pleased that so earnest an effort is being made to restore the grounds to the purpose for which they were intended. The exhibition which opened on Saturday evening with an inaugural dinner and closed to-day, will not, we hope, prove a financial failure—it certainly was not horticulturally. There was plenty to see—groups of Roses, hardy flowers, colonial produce, garden rollers and other appliances, which are noted in our report. During the week lectures have been given on various subjects, the most interesting being those by Mr. Somers Rivers on "Fruit Culture" and by Professor Fisher on "Forestry." There were, unfortunately, many side shows—pierrrots, palmistry, cinematographs, illuminated fêtes, and entertainments as foreign to serious horticulture as a music-hall performance. We were sorry to see this, feeling that the Royal Botanic Society, or a few in authority, were determined to remove the impression that the society is nothing more than a mixture of science, gardening, fairs, dog and cat shows, with an occasional dash of floral exhibition. We write this in no unfriendly spirit; but the great work of the Royal Horticultural Society must occur to mind when contemplating a flower exhibition in which so much that is distracting and not always amusing forces itself to the front. The society at Regent's Park must dispense with its pantaloons if it is to command the respect of all serious horticulturists, and it is hoped that the next exhibition on so ambitious a scale that takes place in these leafy grounds will emulate the instructive and beautiful shows that have been given in recent years by the Royal Horticultural Society. The promoters of this exhibition deserve encouragement in their efforts to place the scientific and gardening aspect of the society on so sound a basis.

The display of Rhododendrons by Messrs. John Waterer and Sons, of Bagshot, was superb. We have seldom seen bushes more densely flowered or represented in such great variety.

## THE EDITOR'S TABLE.

**W**E invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

### PRIMULA JAPONICA.

We have received from Mr. Crook, Forde Abbey Gardens, Chard, Somerset, spikes of a very handsome crimson variety of the Japanese Primrose, which is so useful for growing in boggy soil and in half shade. The varieties raised from this species are of many shades, one a pure white with orange eye, and there are pink and other colours, while the plants remain in beauty for several weeks. Mr. Crook writes: "These spikes are about 2½ feet long, and cut from plants that have been growing in the same position for about nine years." Mr. Crook also sends some excellently grown Lilies of the Valley, cut from plants growing amongst pyramid and bush Apple trees in the kitchen garden.

### RHODODENDRON KEYSII AND R. TRIFLORUM.

A boxful of these beautiful species from Messrs. Pennick and Co., Delgany Nurseries, Wicklow, is most welcome. *R. Keysii* comes from Bhotan, and has tubular flowers of red and yellow colouring, 1½ inches in length, and make a brave show when the bush is well flowered. Messrs. Pennick write that this Rhododendron has flowered exceptionally well this year, and this free flowering of tree and shrub is a general experience.

### FLOWERS FROM ARMAGH.

Mr. McWalters, The Mall, Armagh, sends a large bunch of the beautiful double Welsh Poppy (*Menconopsis cambrica* fl. pl.) perfectly double and rich in its yellow and red colourings. Also *Cheiranthus alpinus* and crimson Maple.

### ORCHIS PURPUREA AND FORTUNE'S YELLOW AND BANKSIAN ROSES.

Mr. F. R. Cuckney sends for our table *O. purpurea* and Fortune's Yellow Rose with the following notes. We suppress the address for the good reason our correspondent gives. Our wild flowers are too precious to indicate their whereabouts. "I am sending for your table a few spikes of *Orchis purpurea*. We may have wild flowers as beautiful, but I think none more so than this charming *Orchis*. My deep regret is that they, with many of our choicest gems, are becoming so scarce. Some, I am afraid, are on the verge of extinction. If you notice them in your interesting notes kindly give no district. One has to take every precaution to preserve them. The enclosed are our first Roses from outside. Fortune's Yellow comes from a south wall, the flowers are a fair colour, but not so delicate or so rich as when grown in a cool house. The yellow Banksian, unfortunately, is not often planted; it requires little pruning, and then only immediately after flowering. This is my practice. The sprays sent tell of its success."

### A CURIOUS DAISY FLOWER.

The Hon. John Mansfield, Sheringham, Norfolk, writes: "I enclose a double Daisy flower, which you

may think worth notice. As you will see a number of apparently perfect, but quite miniature flowers, each with its own stem, involucre, and system of florets, springs from inside the involucre of the main flower."

The abnormal Daisy blossom sent is very curious, and we presume it is from a wild plant from its appearance. We have never known uncultivated Daisies produce this kind of blossom before, but it is of the same nature as the variety of the common cultivated pink double Daisy (*Bellis perennis* var. *prolifera*), known as the Hen and Chicken Daisy, when the central flower or "hen" is of the normal type, but is surrounded by a number of smaller ones which are produced from the base of the involucre scales. In the specimen sent the central flower does not appear to be much larger than those which encircle it. It would be interesting if the plant be a wild one to see if it produces any more similar blossoms, either this season or next. It is not unlikely that the cultivated variety was originally descended from a wild parent.

### CALCEOLARIAS.

Messrs. James Veitch, King's Road, Chelsea, send flowers of their strain of *Calceolarias*, the colours clear and varied. There is also an absence of coarseness in the flower itself.

### IRIS GATESI.

Lady Ardilaun sends from St. Ann's, Clontarf, County Dublin, Ireland, a flower of the beautiful *I. Gatesi*, which is queen of the whole family. The plant has been in its present position at St. Ann's—a narrow south border—for five years, and has never failed to flower. This year the flowers are much larger and the stem longer than is usually the case. We measured the falls of this exquisite flower, they were nearly 6 inches in width and as much in length, a delicate study in grey and white.

### MALMAISON CARNATIONS AND SWEET PEAS.

A delightful contribution to our table comes from Mr. J. R. Batty, Shelton Castle Gardens; it consists of some finely-grown flowers of the Malmaison Carnation and a gathering of Sweet Peas in many colourings. We quite agree with the sender when he mentions that "flowers of Sweet Peas at this time of year are very acceptable for table decoration. We have about two dozen 9-inch pots of

them growing and flowering in a cold Peach house; they have proved a rare sight during the past three weeks." There is a freshness and sweetness about the flowers of the Sweet Pea at this season that even those in summer do not possess.

### TULIP GOLCONDA.

Mr. Hartland sends from Ard Cairn, Cork, flowers of a very fine Tulip, which he names *Golconda*. The colour is deep crimson, with golden base, and the segments are strong and stiff. A Tulip that would stand much buffeting from an unkind spring.

## ROYAL HORTICULTURAL SOCIETY.

### TEMPLE FLOWER SHOW—SUPPLEMENTARY AWARD LIST.

*Gold medal*.—Sir F. Wigan, Bart., for Orchids.

*Silver cups*.—Messrs. Barr and Sons, for pigmy trees and herbaceous plants, and Messrs. Cripps and Son, Tunbridge Wells.

*Silver Flora medals*.—Mr. R. C. Notcutt, Woodbridge, for herbaceous flowers, &c.; Messrs. Jones and Sons, Shrewsbury, for Sweet Peas, Irises, &c.; Messrs. B. R. Cant and Sons, Colchester, for Roses in pots; Messrs. B. S. Williams and Son, Holloway, for Rhododendrons, &c.; Mr. A. F. Dutton, Bexley Heath, for Tree Carnations; Messrs. E. Webb and Sons, Stourbridge, for Gloxinias, *Calceolarias*, &c.; Mr. T. Jannoch, Dersingham, for Lilies of the Valley, Lilacs, &c.; Messrs. B. R. Davis and Sons, Yeovil, for Begonias; Mr. John R. Box, West Wickham, for Begonias; Mr. Robert Sydeham, Birmingham, for Sweet Peas; Messrs. Reamsbottom and Co., Geashill, King's County, for Anemones; N. L. Cohen, Esq., Englefield Green, for *Calla elliptica*; Messrs. Hogg and Robertson, Dublin, for Tulips and Irises; Mr. John Robson, Altrincham, for Orchids; and Mr. W. Ictoo, Putney, for Lilies of the Valley and foliage plants.

*Silver Banksian medals*.—The Ranelagh Nurseries Company, Leamington Spa, for foliage plants and Crotons; Messrs. Storrie and Storrie, Dundee, for Auriculas and Streptocarpuses; Mr. Vincent Slade, Taunton, for Pelargoniums; Messrs. Boyes and Co., Leicester, for Carnations; Misses Hopkins, Knutsford, for alpine and rock plants; Messrs. Watkins and Simpson, Covent Garden, for collection of annuals in pots; Messrs. Kelway and Son,



THE ROSE GROUP FROM MESSRS. WILLIAM PAUL AND SON, WALTHAM CROSS, AT THE TEMPLE SHOW. THIS GROUP WON THE VEITCHIAN CUP.

Langport, for Pyrethrums; Messrs. Gilbert and Son, Dyke, Bourne, Lines, for Anemones; Messrs. W. and J. Brown, Stamford, for greenhouse plants; Messrs. R. Anker, Kensington, for Cacti; M. L. J. Draps-Dom, Brussels, for Begonias, foliage plants, &c.; and Mr. A. Ll. Gwillim, New Eltham, for Begonias.

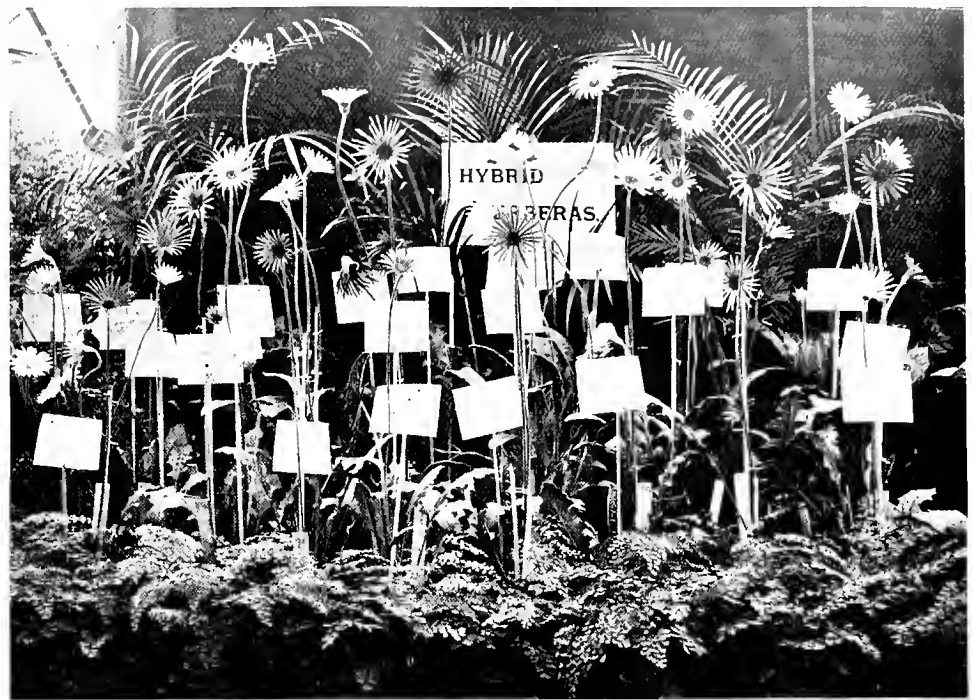
## THE FLOWER GARDEN.

### SEEDLING AURICULAS.

**S** EEDLINGS raised from selected strains of both show and alpine varieties which were sown in March can now be pricked off into boxes or pans. The seeds appeared to germinate very slowly, possibly because of the cold and wet character of the spring, but when transplanted from the seed-pans into suitable soil they make rapid progress as soon as established. Both in sowing seeds and transplanting the seedlings it is not well to use finely-sifted soil, as it is apt to become pasty and solid. I use a compost made up of good fibrous yellow loam, leaf-mould, a little well-decomposed manure, and silver sand, and make it roughly fine by rubbing it to pieces in my hands, thus retaining the fibre. At the bottom of the boxes I place a layer of half-decomposed manure, over this some of the roughest portions of the soil, then filling up with the compost, then adding a surfacing of the finest particles of the compost and a sprinkling of silver sand; a gentle spraying with water is given, and in two or three hours transplanting may be done. As I prefer a fairly firm soil I press all down to make it solid, as young seedling Auriculas appear to grow the fastest in a firm root-run. Auricula seeds invariably germinate somewhat irregularly, and some plants are larger and more vigorous than the others. These I keep together in one box, and place the smaller plants together in another. It does not necessarily follow that the most vigorous plants represent the best varieties when they bloom, as the reverse is often the case. If the plants are kept shaded for a few days until they form new roots they may then be fully exposed to the light and sun, care being taken that they do not at any time suffer from want of moisture. A soft summer shower greatly encourages growth, or, failing this, a gentle spraying overhead. In pricking off the seedlings care should be taken that sufficient space is left for development, by the end of the summer the plants have formed good masses of roots, and they can then be potted into small pots in which to bloom. Some will, no doubt, flower in the autumn, and if indifferent in quality they can be rejected. Seedling border varieties can be transferred to the open in autumn, having the bed in an open spot, and raising it a little above the ground level. In making up such a bed I place on the surface a dressing of ashes from the burnt rubbish heap, and as I plant place some of it about the roots, which appear to run freely in it. The worms are apt to cause some trouble during the winter by working round the plants, especially so in wet weather, and in doing so they thrust the soil away from the stems of the plants, leaving them partly bare. During favourable weather at the end of February or early in March it is well to go through the plants, pressing the soil firmly about the roots, and adding a surface dressing of fine compost. R. DEAN.

### PINKS.

The garden Pinks succeed the May Tulips, though they are by no means alone in their floral service. But the Pink is hardy, free-blooming, fragrant, and charming for cutting purposes, of pretty border varieties there are many, and the laced Pinks such as Mrs. Dark, Modesty, John Ball, Mrs. Pettifer, &c. These have a sturdy habit of growth, and throw up their flowers on stiff stems. As a matter of course the fine lacing on the petal edges will not be nearly so perfect as when cultivated by the florist in a prepared bed and shaded from the sun. Then of the border varieties the best are Albino,



THE INTERESTING HYBRID GERBERAS RAISED BY MR. IRWIN LYNCH, AND SHOWN BY HIM AT THE EXHIBITION IN THE TEMPLE GARDENS LAST WEEK.

white; Anna Boleyn, rosy purple; Eroest Lad-hams, bluish white, with a crimson centre, but much given to bursting its calyx; Mrs. Lakin, white; Paddington, pink, with red centre; and Samuel Barlow, crimson centre, with a white margin. The last named is a compact grower, and very free of bloom. There are other border varieties, but the foregoing may be accepted as representative of some of the best of them. There is no lack of new varieties, but opportunities of seeing them are rare, and a trial of the newer border Pinks might be made an interesting feature in 1905. Pinks can be propagated by means of pipings or by layers, but the former strike readily in a sandy soil under a handlight. I have seen cases on allotment gardens where working men put in Pink pipings under the shade of their Gooseberry trees and root them without difficulty. The Pink will always be a favourite garden plant, and it appears to be at home in almost any position. R. DEAN.

### THE COLOURING OF DAFFODILS AND SOIL INFLUENCE.

THE two articles in THE GARDEN of the 7th ult.—one by "A. H. P.," and the other by Mr. Goodwin—interested me greatly, as they touched on subjects that I have been trying to solve in my own garden, namely, whether Daffodils can be well grown in moist ground, and what makes flowers a good colour. Daffodils grow wild in the wet meadow land of the Pyrenees, and I shall never forget the sight of the golden flowers growing by the side of a stream in company with large bright violet Columbines. But in France and Spain, however wet the ground is in winter and spring, the streams almost run dry and the meadows get baked by the sun in summer and autumn, and, though I know by practice that near London Daffodils can be grown in an extremely wet place with success the first year, I have yet to prove that they will continue to do so. The end of my garden is wet nearly all the year round, partly through want of drainage when it was originally made, and partly, being very narrow, it is overshadowed summer and autumn by the forest trees in neighbouring gardens—those trees whose roots are the bane of suburban gardens. Facing east it only gets sunshine for a few hours in the morning. However, Ferns, some kinds of Roses, Orange Lilies, Lilies of the Valley, Iris, blue and white

Scillas, Polyantheses, Primroses, and many other moisture and shade-loving plants do splendidly there. Last autumn the ground was so wet that I waited until December 15 before planting some fresh Barri conspicuus in a bed cut in the lawn in front of the Polyantheses.

I was afraid to keep the bulbs out of the ground any longer, but the stiff loam was quite wet, and still is if I dig 1 foot deep. The Daffodils flowered and were large and rich in colour. They began flowering on April 19, and were only just fading on May 9. Against a background of green foliage and Polyantheses, with Forget-me-nots next to them, these beautiful flowers look down on a broad belt of mixed Fritillaries and the red-brown Pansy Meteor, a pleasing combination of colours. The Pansy will go on flowering for many more months, and tuberous Begonias will be planted on the top of the bulbs. In regard to colour, the flowers of Barri conspicuus in a south border opened early in the morning two days before those in the bed, just as rich in colour at first. The deep yellow could almost be seen to ebb away during a day of sunshine and dry wind. In this garden the blue of Larkspur, Cornflower, and Forget-me-not is much deeper and lasting in the sheltered spots. Perhaps it was fancy, but it seemed to me that of the Daffodils shown at the Drill Hall on April 19 the flowers that came from Ireland were more highly coloured than the English-grown ones, and I wondered if the humid atmosphere had anything to do with it.

In a dry part of France Primroses and Toad-flax are white instead of yellow, and the wild flowers in Devonshire, where the air is soft and mild, are brighter in colouring than those in Kent. But then, to prove the fallacy of this belief, I remember a wind-swept hill-top garden in Surrey, where, when flowers could be got to grow at all, they beat all those grown in the valley gardens in colour. Certainly pure air is one of the chief factors in making colour; certain ingredients in the soil are another. It is well known that charcoal has a brightening effect on red colours. For this reason a layer of charcoal used to be put at the bottom of pot Roses and Geraniums, iron filings to make Hydrangeas blue, and I remember reading years ago, possibly in a number of THE GARDEN, that some solution of copper when mixed with the soil deepened the colour of Daffodils.

W. SPURLING.

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

June 14.—Royal Horticultural Society's Drill Hall Meeting; Horticultural Club, House Dinner 6.30. Discussion opened by Sir John Llewelyn, Bart., on "Himalayan Rhododendrons."

June 15.—York Gala (three days).

June 28.—Royal Horticultural Society's Drill Hall Meeting.

July 6.—National Rose Society's Temple Show; Southampton (two days), Croydon, Hereford, and Hanley (two days) Horticultural Shows.

July 7.—Norwich Horticultural Show.

July 12.—Royal Horticultural Society's Holland House Show (two days).

**The Gardeners' Royal Benevolent Institution.**—The sixty-first anniversary festival dinner in aid of the funds will be held at the Whitehall Rooms, Hotel Metropole, on Tuesday, June 28, under the presidency of the treasurer, Harry J. Veitch, Esq.

**The National Rose Society.**—Mr. Mawley, hon. secretary, writes as follows: "I am sending you some reports, prospectuses, &c., with a view to help you to obtain for the society a few new members. Last year at the same time it was our modest ambition to raise the number of members to 1,000. This, owing in a great measure to the kind exertions of our local secretaries and others, we easily succeeded in doing. This year we have two additional attractions to offer new members. (1) Tickets for the finest Rose show ever held by the society, and consequently the largest and finest display of Roses ever seen in any part of the world. The Temple Rose shows of 1902 and 1903 were but sorry representations of the capabilities of the National Rose Society, but this year the season has up to the present time been so favourable, and the fixture promises to be so well timed, that an exceptionally grand show may reasonably be anticipated. (2) In addition to the other publications, a new pruning book. This will be issued to members in November next, and will meet a long felt want amongst amateur rosarians generally. It is being drawn up by a special committee of experts, and every care is being taken to make it in all respects the best and most practical work on pruning Roses yet published."

**University College, Reading.**—A gathering of great interest to horticulturists will take place at Reading on the 24th inst., when the Earl of Onslow, president of the Board of Agriculture, will open the new training gardens attached to this college. The ceremony will be accompanied by a reception by the president of the college, Mr. Alfred Palmer and Mrs. Palmer, on the college lawn. The gardens comprise the old Portland Road Nursery, so long possessed by Messrs. Sutton and Sons. There is peculiar satisfaction in knowing that land so long associated with first-class horticulture should be reserved as a horticultural experimental garden for an indefinite time. That everything done in these gardens is of first-class description is certain, and visitors to the official opening will be well repaid.

**Notes from Baden-Baden.**—I once got seed of *Papaver aculeatum* from Natal, and was astonished that this delicate looking plant, which never had known cold in its native habitat, could stand frost at all. Why should not *Lathyrus pubescens* stand the regular winters of England? As to crossing, or rather hybridising, I would recommend "A. D." to use the everlasting, perfectly hardy *L. Mulkak* as female parent, or *vice versa*. This latter will be presently in full flower, and has much the appearance of *latifolius*, only the flowers are somewhat larger, deeper in colour, and fragrant. Among many hundreds of *Tulipa Batalini* which went through my hands, all were of uniform colour, a mixture of sulphur and ochraceous yellow; but one bulb had a crimson flower of a wonderful soft tone. *Lilium giganteum yunnanense*, a very hardy variety, is now showing 18 flowers on one stem 8 feet high; they are larger and better coloured

than those of the type. *Pentstemon glaber alpinus* is very fine; the dense spikes are 1 foot to 2 feet high and the blooms are a bright glistening blue.—MAX LEICHTLIN, *Baden-Baden*.

**Some high-priced Orchids.**—At Messrs. Protheroe and Morris's rooms in Cheapside, an important sale of Orchids from the collection of Mr. Norman C. Cookson, Oakwood, Wylam-on-Tyne, was held last week. Some very high prices were realised, the amount received for the eighty-one lots being more than £5,000. *Odontoglossum crispum Cooksoniae*, a variety that has received the gold medal of the Royal Horticultural Society, fetched £672; *O. crispum Franz Mazreel*, £598 10s.; *O. c. mundyanum*, £456; *O. c. Grace Ruby*, £220 10s.; *O. c. grairianum*, £388 10s.; *O. cooksonianum*, £231; *O. c. ashworthianum*, £294; and *Cypripedium insigne Sanderæ* Oakwood variety made 250 guineas.

**Messrs. John Waterer's Rhododendrons at the Temple show.**—In our report of the great flower show held in the Temple Gardens last week we unfortunately inadvertently omitted to mention the group of Rhododendrons from Messrs. John Waterer and Sons, Limited, Bagshot. These made a striking and beautiful display; it is not too much to say that if one retained a vivid impression of any particular flowers among the many thousands shown Rhododendron Pink Pearl would certainly be one of them. It was the best of the many good things in Messrs. John Waterer's group; the large heads of rich pink blossoms made a charming display. There were many other varieties shown in the group, and among them Gomer Waterer, a very large, handsome flower, white, slightly blushed; Lady Cathcart, bright clear rose, with crimson spots; Sappho, white, with black spots; and Duke of Connaught, rosy crimson, with light centre.

**Dropmore, Maidenhead, in early June.**—There are few fairer gardens than Dropmore, near Maidenhead, when the great hushes of Azalea and Rhododendron are in full beauty. The flowers were fading when we went to Dropmore a few days ago, but there was sufficient colour to light up the sombre conifers and bring relief to the grassy ways and slopes which intersect this pleasant retreat. Seen from the root mound, the view stretches across the Thames Valley, a glade of Rhododendrons and Foxgloves is immediately below this leafy eyrie, and in the distance the stately Royal Castle, stern and grey in its setting of forest and park. Rhododendrons break in on the view at every turn. A leafy walk, then suddenly a fountain of purple, or as it were tongues of fire from a sunlit Azalea, opening to a grassy glade, where Mr. C. Page has planted the Himalayan species, which are now exercising the minds of lovers of tree and shrub. Here, sheltered from the wind, which is so harmful to their welfare, are *R. arboreum roseum*, *R. Thomsoni*, *R. Falconeri*, and many others which will probably grow with the same vigour that astonishes those who see the Himalayan Rhododendrons in the gardens of Ireland and the south of England. The old-world mixed borders are full of Irises, Lupins, Heucheras, and many early summer flowers, and soon the Rose walks and arches will be bowered over with blossom. We hope to describe Dropmore fully in a few weeks.

**A Rhododendron exhibition.**—Perhaps the most attractive feature of the horticultural exhibition being held in the Royal Botanic Gardens, Regent's Park, this week is the display of Rhododendrons from Messrs. John Waterer and Sons, Limited, Bagshot. These alone were well worth going to see. The plants are grouped in large beds on undulating ground, and as they are planted out this part of the Botanic Gardens is to all appearances a Rhododendron garden. Looking from the highest part of the ground one sees masses of Rhododendrons in many beautiful varieties, veritable banks of colour around the margin, while large beds occupy the centre. Walks intertwine between beds and borders, and enable one closely to examine the many beautiful sorts that go to make this unique display. Pink Pearl makes a lovely show in the centre of the dell, while all

around it dozens of other varieties in indescribable shades of colour make up a garden of flowers. This year most of the plants are in bloom at the same time, and the result is one of the best displays we remember to have seen. Other varieties worthy of special mention besides Pink Pearl are Gomer Waterer, white with blush tinge; Charlie Waterer, scarlet with light centre; Mum, a lovely white with lemon-coloured eye; Mrs. Fritton, very bright crimson with light centre; Lady Clementina Walsh, a light variety edged with pink, very beautiful; and Francis B. Hayes, white with black spots, quite distinct.

**Cytisus purpureus.**—Throughout the numerous Broom family the different tints represented in the flowers consist for the greater part of some shade of yellow or white, but in this we have a totally different colour, for, as indicated by the specific name, the flowers are purplish. It is of a low, somewhat spreading growth, the comparatively long arching shoots being, when in good condition, studded with Pea-shaped flowers throughout the greater part of their length. A bed of this carpeted with the still lower growing *C. Ardoini*, or the comparatively new *C. kewensis*, forms a delightful picture, white *C. purpureus* is also well suited for planting on rockwork. Apart from its other features it is more than interesting as having played a part in the production of the singular *C. Adami*, which has given rise to much controversy. This is said to have originated from a bud of *C. purpureus*, which was inserted into a plant of the *Laburnum*. A graft hybrid was the result, but it does not remain constant, hence the singular spectacle may be sometimes seen of a tree bearing three kinds of blossoms—first the ordinary *Laburnum*, next *C. purpureus*, borne in tufts, and lastly, *C. Adami*, with yellowish purple blossoms, being in colour about midway between the two.—T.

**The late Mr. William Kerr.**—Mr. Kerr was a native of Dumfriesshire, and from his boyhood, being spent on a farm, he early took an interest in agriculture and horticulture. He entered the employment of Messrs. Thomas Kennedy and Co., nurserymen and seedmen, Dumfries, rising to a responsible position under the firm. He afterwards entered into partnership with Mr. Milligan, who for some time had carried on a florist business in Castle Street, Dumfries, the partnership being carried on under the name of Milligan and Kerr. After the death of Mr. Milligan, Mr. R. P. Fotheringham, from Messrs. Drummond's of Stirling, was taken in as a partner, the designation being Kerr and Fotheringham. The firm afterwards removed to Whitesands, Dumfries, and established there a Corn Exchange. Mr. Kerr retired from the firm shortly afterwards and took up Potato growing, farming, and general nursery work. He raised a number of good Potatoes, some of which are well known at the present time; while *Violas* were among the plants to which he devoted a considerable amount of attention. Mr. Kerr was a keen exhibitor, especially with Potatoes, and he carried off many prizes for these tubers at the Crystal Palace and other leading shows. His gold and other medals were in themselves of an interesting character, and showed his success in these competitions. Mr. Kerr took at one time an active part in the promotion of several local movements, and acted for some time as secretary of the old South of Scotland Horticultural Society, with which, however, he had no connexion for some time before his death. During a collapse of the society he carried on annual shows on his own responsibility, band contests being held in connexion. These were not, however, profitable, and it was unfortunate that so many of Mr. Kerr's enterprises proved unremunerative to him. He was a devoted admirer of music, and rendered great services to the Dumfries and Maxwelltown Philharmonic Society. Of late years his public work was confined to acting as secretary of the South of Scotland Ploughing Tournament. Mr. Kerr is survived by Mrs. Kerr and several of a family. One of his sons, Mr. George W. Kerr, is manager at Messrs. Baker's, Old Hall Nurseries, Codsall; another, Mr. James Kerr, is a florist in Dumfries.—S. A.



**Saxifraga aretioides primulina.**—

Later in flowering than those of the *S. burseriana* group, the above plant is certainly one of the gems among the more miniature of the encrusted section of Saxifragas, and a scarce plant. It will probably long remain so, for the simple reason that it is of garden origin and of slow growth. Some years ago I flowered what may have been a unique specimen, and an illustration of it appeared in THE GARDEN. Unfortunately, a season or so later, after having grown the plant for some sixteen years without the least difficulty, the specimen was attacked by fungus, and I had some difficulty in saving even the outer portions. These fungoid attacks appear with remarkable suddenness, and are only seen when the mischief is done, and the rosettes quite dead or dying. Last year a large tuft of *S. cæsia* was ruined in the same way. This latter is more readily replaced, however, but the great fear is one does not know what is to suffer next. Does any lover of alpinæ know of a remedy, or, better still, a preventive measure for this dreaded fungus?—E. H. JENKINS.

**Onosma tauricum.**—This, more strictly, I suppose, called *O. echinoides*, may be regarded as among the choice alpinæ of the year. A good tuft covering a high rocky ledge, with its roots far away in loam and rocky *débris* or slate chippings, may be kept in good health for several years; indeed, even when the plant in winter suffers, there are usually a few breaks to put forth anew those growths that will flower a year later. The plant is not fastidious as to soil, but prefers a rather holding loam, with plenty of sand or its equivalent. Manure and very rich soils are quite unsuitable. Early June is the best time of the whole year for inserting cuttings of the species. The only good cuttings are those having a heel attached, and such as are of current growth. These may in many instances be found too short to stand erect when inserted in sand, and to assist them a short peg may be tied to each cutting, and so inserted that the heart growth is not buried. Sand, loam, and fine brick rubble in equal parts, a quite close handlight in a perfectly shaded spot in the open, and a month will suffice to root the cuttings. Older material for cuttings is by no means so good, and will produce more blanks than prizes. The knife should never be used in making the cutting, and avoid artificial heat.—E. H. JENKINS.

**Primula rosea.**—In the interesting and instructive notes by "S. G. R." on "Correct Planting," recently given in THE GARDEN, this fine species was noticed. Ostensibly a moisture-loving or semi-bog plant, it is not always so content when given the moisture it would appear so much to need. On the other hand and in other circumstances the plant flourishes amazingly when treated on the semi-bog plan or principle. Those of your readers whose experience of the latter treatment permits them to refer to examples of at least 15 inches high and plants as much through at 18 months old are justified in continuing giving this moisture, otherwise they are not; indeed, under the wet treatment I have seen plants but little more than 6 inches or 8 inches high at their flowering time. If any of your readers have this experience, I would suggest that a 12-inch deep bed of soil, placed above the bed of wet soil, would most likely produce in the same aspect plants nearly treble the size, and, of course, flowers in proportionate degree. It is simply another instance where certain well-known moisture-loving plants refuse to be happy in the very probably stagnant moisture. In a general way the plant attains its greatest vigour and freedom of flowering when in retentive loam and shade. On the other hand, some of the finest examples I have grown were in a deep, very sandy soil, with a high wall near and shelter from a belt of trees on north and east. Here it was that a large collection of double *Primroses* grew apace. All, indeed, save the double crimson were a success, and here it was when *Primula rosea* was first distributed that a bed of its seedlings was planted for trial. Cow manure was always freely used abundantly in the soil, and for the new *Primula*, which had a strong recommendation with it, a specially heavy dressing was dug in. Strong seedlings were put out early, and

when eighteen months old the leaf-tufts were 15 inches high and nearly as much through; the flowering also was very good. No one need wish for greater vigour or beauty than in this case, and with a little thought imitation is easy. Strong, freshly-established seedlings in pots render progress and ultimate success a simple thing.—E. H. JENKINS, *Hampton Hill*.

**The Royal Caledonian Horticultural Society.**—The Earl of Leven and Melville, the Lord High Commissioner to the General Assembly of the Church of Scotland, visited the spring show of the Royal Caledonian Horticultural Society in the Waverley Market, Edinburgh, on the afternoon of the opening day (May 25). His lordship, who was received by Mr. D. P. Laird (one of the vice-presidents), Mr. P. Murray Thomson, S.S.C. (secretary and treasurer), and several members of the council, made an inspection of the show, and expressed himself as highly pleased with the exhibits. The Earl of Leven and Melville was particularly pleased with the hardy herbaceous and alpine flowers, and generously intimated that he would give £30 to be competed for in prizes for hardy flowers at the international exhibition to be held by the society in the autumn of next year. Owing to the wet evenings the receipts at the spring show were about £39 less than last year's show.

**WOODS IN GERMANY.**

Alone the birds and me:  
 These woods in early spring  
 Are carpeted with green  
 And pale Anemone.  
 Around sweet perfumes show  
 Where Violets have been,  
 And through their leaves, all tender, pale,  
 Appear the Lilies of the Vale.  
 Hush! cuckoo, cease to sing,  
 Or you will break my heart;  
 From happy England now  
 I cannot bear to part.  
 I think of sunset glow,  
 Across those well-lov'd hills;  
 And that slim figure, neatly drest,  
 Ah! God, I need not say the rest!  
 The Cowslip, dropping gold,  
 A ghost of pleasure seems,  
 And Lilies that unfold  
 The figure of my dreams.  
 The vision that they bring  
 My heart with sadness fills—  
 Those promises already dead,  
 Those words that never can be said. M. C. D.

**Daffodil yellow-stripe disease.**—As it is now the season of Daffodil growth, it would be well if every grower would endeavour to decide what is the cause of the disease manifested by yellow stripes in the foliage, and sometimes yellow stripes on the flower-stalk, running on into white stripes in the yellow perianth. A vast number of causes have been suggested, so many and various that it is difficult to thrash anything probable out of the multitude of divergent opinions. It comes so mysteriously too. One year your stock of Daffodils may show broad deep green foliage standing up erect and strong; next year one or two varieties will have their foliage striped with yellow and the flower-stalks be bent and feeble, some possibly lying prone on the ground. No fungus disease can be found; it seems to be some essential debility affecting the constitution of the whole plant. At one time we had almost decided that it probably arose from poverty of soil, and then the next year a whole bed of princeps appears with "yellow-stripe," except that an average of every tenth bulb is quite healthy and strong, and as dark green, glaucous, and crisp as you could wish, and these scattered fairly regularly all over the bed, seemingly proving that it is not the soil. Here is another example: "I had last year one crown of King Alfred. I divided it, planting three offsets in a row, and they are all perfectly sound. But in the same row I planted some more from an outside source, and they are attacked. They came from a friend's garden, where last year they were in

excellent health, but where this year they are attacked. It seems as if the bulbs must have caught the complaint between dying down and being replanted, and not (as my own three bulbs seem to prove) after being planted." It is a most vexatious disease, because one can never be sure that one is not introducing it to a friend's garden even when giving him an apparently quite healthy bulb, which the previous season showed no trace of disease. However, we do not yet know whether it is infectious or not. Certain varieties, e.g., princeps, C. J. Backhouse, and Sir Watkin are very liable to it, and Horsfield slightly so. If all growers who are troubled with it this season would send us their experiences, coupled with exact conditions of planting, manuring, and nature of soil, we might be able to collate the evidence and make some deduction.—*Journal of the Royal Horticultural Society*.

**A scarlet Clematis.**—When *Clematis Viticella rubra grandiflora* was exhibited more than forty years ago it was regarded as the nearest approach to a crimson Clematis then obtained of the open flat-flowered section. Mme. 'E. Andre was considered a decided improvement as a red Clematis, but Ville de Lyon is now regarded as having pretensions to be included as a scarlet, while the blooms nearly approach those of the well-known Jackmanni in shape. Those who appreciate this colour in the Clematis will find its bright-coloured blossoms to their liking.—R. D.

**Tufted Pansy Swan.**—White sorts of recent introduction are almost as plentiful as those of a yellow colour. Of the former, however, there is a much greater variation in point of quality. In the present instance the flowers are borne in profusion on plants of excellent growth, and the flowers are snow-white. The latter are large and of good substance, and the rich orange-yellow eye, which is rayless, also adds to the beauty of the flower.—D. B. C.

**Hybrid Tea Roses as standards.**

The denunciation of the standard form of the Rose which is delivered from time to time appears to have little if any effect upon restricting its use. Standard Roses are still in great demand, and large plantations of them can be seen in many nurseries. Many of the Hybrid Teas make excellent standards. Of their hardihood there can be no doubt, and, unlike many of the Hybrid Perpetuals, they are almost mildew proof. The following do remarkably well as standards: Antoine Rivoire, cream and orange-yellow, an excellent Rose for all purposes; Camoens, of a charming shade of bright China rose, blooming very freely. This makes an excellent bedding Rose; Goldquelle, clear golden yellow, a charming variety; Gustave Regis, nankeen yellow, most attractive in the bud stage, a continuous bloomer; Killarney, in addition to its delicate pale pink flowers, it produces an attractive bronzy foliage, while the large blossoms are very handsome; Lady Battersea, cherry-crimson and orange, one of the best of decorative Roses; Liberty, bright crimson, blooming very freely, and especially in autumn; and Marjorie, white and salmon-pink, a free and continuous bloomer.—R. D.

**Show of Colonial-grown fruit.**—On December 13 and 14 next there will be a show specially of fruit grown in British Colonies, but with it will be several classes for home-grown, Colonial, and foreign preserved, bottled, or dried fruits, jams, &c. The schedule of prizes can be obtained at the Royal Horticultural Society's office, 117, Victoria Street, Westminster, by enclosing one penny stamp. Fellows' passes and transferable tickets will be admitted at 1 p.m. on the 13th, and at 10 a.m. on the 14th; the public from 2 p.m. to 7 p.m. on the 13th on payment of 2s. 6d.; after 7 p.m. 1s.; and at 10 a.m. on the 14th on payment of 1s. The show will remain open till 10 p.m. on both days. As the object of the exhibition is to prove what grand fruits can be had without going outside the Greater Britain, it is hoped the growers of fruits in the Colonies will all endeavour to send of their best. Fruit intended for this show can, if necessary, be consigned to the secretary, Royal Horticultural Hall, Vincent Square, London, S.W., when it will be stored in the vaults under the Hall

till December 12, and the society's officers will stage it. No fruit sent in this way can be repacked for return. All staging must be finished before 4 p.m. on Monday, December 12, as there will be a private Press view at 5 p.m. on that day. Exhibitors must clear their goods away before noon on December 15.

**Handsworth Horticultural Society.**—This society was founded in 1885, and may be said to have succeeded to the work of the old Handsworth and Lozells Floricultural Society, which was in operation more than fifty years ago, and which held several exhibitions each year. At that time Handsworth was a country suburb of Birmingham, and gardens abounded in which florists' flowers especially were grown with great success. Handsworth is now a great industrial community, with huge factories and works, and there are still many working men who take a pride in cultivating flowers, though under much less favourable conditions than their forefathers did. Handsworth has now a public park, known as Victoria Park, and in this the annual show is to be held on July 22 and 23 next. The schedule of prizes contains some 150 classes, many of them

from the Cape, the pleasing white-flowered shrub *Anopteria glandulosa*, *Aphlexis Woodii*, and the pretty *Platytheca galioides* were among the interesting things in flower. There were *Petunias*, an unusually good set of tuberous *Begonias* from a famous English raiser and just coming into bloom, a number of *Calceolarias* of an excellent strain and capitally grown, fine *Cinerarias*, *Pelargoniums* of several groups, and last, but not least, beautiful masses of *Schizanthus pinnatus* and a collection of *S. wisetonensis*. Elsewhere in the houses were a number of *Orchids* and other plants in bloom, but these notes may induce northern readers to visit more frequently their Scottish national establishment.—S. A.

**Fruit prospects in Scotland.**—So far as present appearances indicate the prospects of a good fruit season in Scotland are more favourable than for a long time. Apples in particular are smothered with blossom, and even such a shy Apple in many parts of the North as Peasgood's Nonsuch is blossoming with remarkable freedom. This is not in one district alone, but seems a general experience, as one gathered from a correspondent in touch with growers from all parts of the country at the Royal Caledonian Society's spring show. The Pears are not so regular, it would appear, and the accounts regarding these were somewhat conflicting. Plums promise well in many places, but in a few the reports are not so good. Gooseberries and Currants promise well, but in some places the caterpillar is troublesome, and the Black Currant mite is still continuing its ravages. Cherries have flowered very freely, and Strawberries are generally strong and give promise of doing well this year. As previously recorded in *THE GARDEN*, the area under fruit has largely increased, despite the unfortunate seasons experienced of late years.

**Wistarias as bushes.**—So accustomed are we to see the *Wistarias* grown as climbers that we scarcely realise the possibility of having them in bush form; yet they readily conform to this treatment, as may be seen at the present time at Kew. True, within the last few years they have been much more used than formerly for forcing, but for this method they are usually grown as small standards. Even the most vigorous climber of them all, *Wistaria sinensis*, can, however, be readily grown as a somewhat open spreading bush, and in this way the massive drooping clusters of blossoms present a totally distinct appearance from the general run of hardy shrubs. The best for the purpose is, however, that known as the Noda variety by the Japanese, which figures largely in many views of that distant land. Botanically, it is known as *Wistaria multijuga*, and its most notable difference from *W. sinensis* consists in the great length of the flower racemes. In this there is a much greater space between the flowers, which are also individually smaller than those of *W. sinensis*, but the effect of a specimen laden with these extraordinarily long racemes is, to say the least, startling. Apart from being grown as a bush, it is often trained by the Japanese to a horizontal trellis, and when covering a considerable space the effect of its myriads of flower clusters all hanging from one plane is essentially Japanese. There are different varieties of the two species above mentioned, but

what is regarded as the typical form of each is at least equal in beauty to any of the others. The white variety of *Wistaria sinensis* seldom flowers so freely as the ordinary kind, while the double flowered is not at all pleasing. A *Wistaria* rarely seen in gardens is the North American *W. frutescens*; the purplish flowers, in erect racemes, are produced after the others are over.—H. P.

**Fugosia hakeæfolia.**—This uncommon greenhouse shrub, now flowering at Kew, is by no means such a novelty as it was regarded a few years since, for it was first introduced from South Australia by the once prominent nursery firm of Messrs. Lucombe and Pince, of Exeter, in 1846. It is a member of the Mallow family, and is also known as *Hibiscus hakeæfolius*; but it differs from that genus in some well-marked botanical features. The *Fugosia* forms a rather upright growing shrub, clothed with long, narrow, fleshy, almost cylindrical-shaped leaves, which form a strange setting for the Hibiscus-like flowers. These are from 3 inches to 4 inches across, and in colour purplish lilac, with the central group of stamens of a darker tint. From its distinct appearance this *Fugosia* at once arrests attention. Since its introduction it appears to have almost dropped out of cultivation till unearthed by Mr. Goldring, at Bicton, in Devonshire, some few years ago, and from whence I believe a specimen was obtained for Kew. Its successful culture presents no difficulties, for cuttings strike root readily enough, and, given the protection of a greenhouse during the winter, the plants may be stood outside throughout the summer months.—H. P.

**Fabiana imbricata.**—In the southern part of Hampshire this shrub is common in cottage gardens. It succeeds admirably planted at the foot of a wall with a southern or an eastern exposure and allowed to grow loosely away from the wall. The plants are invariably covered with their pure white blossoms in summer. Any soil suits it equally, growing freely in that which is heavy and retentive as well as that of a sandy character. The finest plant I know is at the foot of a south wall having the additional protection of a glass verandah over the top. This plant has been smothered yearly with blossom the last twenty-five seasons. Propagation is easy if cuttings 6 inches long are slipped off with a heel at the end of August or early in September, and dibbled firmly in sandy soil in a cold frame and kept close and shaded for a time, the following April they are ready to go where required. Plants in the open shrubbery get killed with severe frost. I do not know of a single plant that has not succumbed to 15° of frost for a few nights continuously.—E. MOLYNEUX, *South Hants.*



ERIGERON TRIFIDUS IN THE ALPINE HOUSE AT KEW.

open to all, and the prizes are valuable enough to attract exhibitors from all parts of the country. The show, which is a very extensive one, is admirably worked. The committee is divided into several sub-committees, each of which undertake certain functions. The secretary is Mr. John Edwards, 24, Stafford Road, Handsworth.

**Plants in Edinburgh Botanic Gardens.**—In the centre house of the range at the Royal Botanic Gardens of Edinburgh an effort is made to maintain a display of flowers at all seasons, and on a recent visit a number of attractive plants were in flower. One of the most striking, comparatively quiet as is its colouring, was an old plant hardly ever seen now. This is *Lopezia lineata*, which makes one of the prettiest of all basket plants as seen at Edinburgh, and is much finer grown in this way than in a pot. A few groups of *Ericas*, such as *Cavendishi*, *ventricosa*, &c., were attractive. The showy *Arctotis aureola*, the pretty *Xanthesia rotundifolia*, the favourite *Boronia heterophylla*, with its pink flowers, *Eriostemon scabra*, with its white flowers tinged with pink, the pretty pink *Adenandra umbellata*

more used than formerly for forcing, but for this method they are usually grown as small standards. Even the most vigorous climber of them all, *Wistaria sinensis*, can, however, be readily grown as a somewhat open spreading bush, and in this way the massive drooping clusters of blossoms present a totally distinct appearance from the general run of hardy shrubs. The best for the purpose is, however, that known as the Noda variety by the Japanese, which figures largely in many views of that distant land. Botanically, it is known as *Wistaria multijuga*, and its most notable difference from *W. sinensis* consists in the great length of the flower racemes. In this there is a much greater space between the flowers, which are also individually smaller than those of *W. sinensis*, but the effect of a specimen laden with these extraordinarily long racemes is, to say the least, startling. Apart from being grown as a bush, it is often trained by the Japanese to a horizontal trellis, and when covering a considerable space the effect of its myriads of flower clusters all hanging from one plane is essentially Japanese. There are different varieties of the two species above mentioned, but

## NOTES ON HARDY PLANTS.

### ERIGERON TRIFIDUS.

**A** LARGE family the *Erigerons* form, many of which are valueless from a garden point of view, a few only being good border plants, while a limited number of alpine species are useful in the rock garden and alpine house. Belonging to the latter group is *E. trifidus*, a pretty tufted plant with distinct, pedately divided, slightly hairy leaves on stalks about 3 inches long. The white or pale lilac, Daisy-like flowers are borne singly on peduncles from 4 inches to 6 inches long, and are nearly 1 inch across. It is quite hardy, being a true alpine plant found on the Rocky Mountains from Northern Colorado to British Columbia. When grown outside the habit of the plant is more compact, but in pans which have been kept during the winter in a cold frame it gets rather taller, as shown in the illustration, suggesting the appearance of an *Anemone* by its flowers. It is certainly closely allied to *E. compositus*, and Gray, in his "Flora of North America," included it with two other forms under that species. It is, however, a stronger plant and gets much larger, so is quite distinct enough for garden purposes. Other recently introduced species are *E. flagellaris*, a free-growing spreading plant, which soon covers a considerable

space with a profusion of similar coloured flowers to the above. It grows on the banks of streams in the western states of North America. *E. divergens* is a diffusely branched and spreading plant also, with pubescent foliage and white or purple flowers, found growing on low plains and banks of rivers in the same region as the preceding one. The other Rocky Mountain species, *E. leiomerus*, which was introduced a few years ago, is a more compact-growing plant than the two above, and is well worth a place in the rock garden, where it will do in sandy soil. The leaves are bright green, and the violet flowers are borne on stems 2 inches or 3 inches high. W. IRVING.

**SEDUM TERNATUM.**

THE Stonecrops include many valuable plants for carpeting parts of the rock garden or old walls. *S. ternatum*, which is shown in the illustration growing in a pan in the alpine house—for which purpose it is very useful—lasts in flower for a long time, and is also admirably adapted for covering rockwork. It is a glabrous evergreen plant, with its spatulate leaves in whorls of three up the stem, and crowded into rosettes at the top. The white star-like flowers on loose cymes are produced in May and June. It is a native of Western North America, and usually found growing on the rocky banks of streams, but, although a moisture-loving plant, it succeeds well in open, rather sunny places in sandy loam. A companion to the above, and also a native of North-Western America, is *S. spathulifolium*, a handsome species forming a tuft of decumbent stems, with thick, glaucous, spatulate leaves and numerous large rich yellow flowers on stems nearly 6 inches high. It is a rock-loving plant, at home on rather dry ledges in the full sun, and is very effective when in flower. Without flowers it is worth growing for its distinct foliage alone. The flowering time begins in May and continues during the greater part of the summer months. W. I.

**GERANIUM RIVULARE.**

THIS useful Geranium belongs to the stronger-growing section of the Crane's-bill family, and comes into flower in the latter part of April before any of the other members of the genus. It is admirably adapted for the rock garden amongst equally strong-growing plants, producing a profusion of flowers during the month of May. Though an old garden plant it is seldom seen in cultivation, many plants inferior to it in beauty being more extensively grown. It is known also by the name of *G. aconitifolium*, on account of the resemblance of its palmately cut leaves to those of some species of *Aconitum*, and is usually found growing by the sides of mountain streams in the Dauphiny and Alps of North Italy and Switzerland. But, though preferring a rather moist position, it will succeed in a dry one and flower more freely, but will not grow so luxuriantly. It is usually about 2 feet high, and has white flowers 1 inch to 1½ inches across. W. IRVING.

**FRITILLARIA RECURVA.**

WHAT a pity it is that such a delightful hardy flower should be so capricious. It is, I think, the fairest member of a family the various species of which are distinguished by graceful growth and a quaint beauty hardly to be found in any other family of hardy spring-flowering bulbs. I must confess that my experience of *F. recurva* is of the sorrowful kind. Twice it refused to live after the first year, and then, remembering what a wonderful influence soil has on some hardy flowers, I tried a mixture of loam, leaf-soil, and fibrous peat. The second year the plants started into vigorous growth, and I thought I had come to the end of my troubles. Then came, however, one of those warm, moist June nights, when plants grow

rapidly and snails and slugs feed voraciously. Evidently a strong force of the enemy came, saw, and devoured my little treasures. As the season comes round I am always going to have another try at this charming little hardy flower, but I miss the right time for planting, and *Fritillarias* must be in the ground early in September or they do not gain sufficient strength the first season to enable them to get permanently established. As regards soil for this *Fritillary* it must, in any case, be of such a nature that the winter rains do not bring it into a close condition; a French authority says peat and leaf-soil, and lift every other year. Frequent lifting and replanting in ground that has been fallowed through the summer is, I know, good for many hardy bulbous flowers. Perhaps some readers of THE GARDEN who have successfully grown this charming hardy flower will record their experience. J. C.

**LYCHNIS LAGASCÆ.**

WITH me this is not a true perennial. Young plants seem to go through the winter very well, but those that have given a good show of bloom never afterwards look well, and, even if they survive the following winter, have a miserable appearance. They may bloom a little the second year, but the following winter sees the end of them. Like all the single forms of *Lychnis*, this one is easily raised from seeds, so that there is no difficulty in keeping up a stock of healthy plants. The best way is to sow as soon as the seeds are ripe; the greater portion will come up in about a month from sowing, but sometimes a good portion will remain till the following spring. This *Lychnis* is such a charming little thing that it is worth all the trouble of raising in this way. It carpets the ground with tender green leafage, seldom exceeding 4 inches in height when in bloom. J. C.

**CAMPANULA ABIETINA.**

ALTHOUGH this is of lowly growth it has a rather striking appearance. It is, in fact, so distinct that one might easily think that it belonged to an allied genus. It is to be classed among the very dwarf-habited section of the family, but the flower-stalks rise boldly above the foliage to a height of some inches, varying according to the strength of the plants and nature of the season. It grows

freely enough in ordinary garden soil, but likes a bit of good food, and on light soils is apt to suffer in hot, dry summers unless watered occasionally. J. C.

**SAXIFRAGA PYRAMIDALIS.**

MY plants are this year blooming with exceptional freedom. On quite a small space I counted thirty spikes of bloom. Most plant growers are acquainted with the value of this Saxifrage for pot culture, but many do not seem to know that it is equally valuable in the open air. It is, indeed, the aristocrat of the family, the large rosettes having an imposing appearance, and the tall, pyramidal spikes being larger in proportion to the size of the plant that produces them than is the case with any other dwarf-habited hardy flower I am acquainted with. Evidently wet summers are favourable not only to the growth, but also to the flowering of Saxifrages. In a general way the rosettes of *S. pyramidalis* with me require two years in the open air to come to flowering size; but this season's one year old crowns that have not come to large dimensions are throwing up well. The pyramidal Saxifrage is a fine open-air flower when in full enjoyment of health and vigour. Hitherto I have grown it at the foot of a low wall, only 6 inches above the ordinary ground level, but planted in such a manner that the rosettes can rest on stones placed among the plants. In this way this very ornamental kind can be grown quite well in the open, and will throw up spikes 2 feet in height and 1 foot or more across at the base, perfect pyramids of bloom. J. C.

*Byfleet.*

J. CORNHILL.

**SYMPHYANDRA WANNERI.**

THE genus to which the above ornamental biennial belongs consists of seven known species, natives of the mountainous districts of eastern countries from Transylvania to Armenia and the Caucasus. It forms the connecting link between the *Campanulas* and *Lobelias* in having the anthers cohering in a tube. The western representative of the genus, *S. Wanneri*, is found in Transylvania and Servia, and has been in cultivation about fifteen years. It is an erect-growing plant, reaching a height under favourable circumstances of 1 foot to 18 inches, with pale reddish brown stems. The violet-blue



SEDUM TERNATUM IN THE ALPINE HOUSE AT KEW.

flowers are pendulous, 1½ inches to 2 inches long, produced on a leafy branching panicle. Although quite hardy in light, sandy soil in a slightly shaded position, it requires raising from seed in a little heat or in a cold frame, and, as the plants often do not flower till they are two years old, it is necessary to make a sowing every spring to keep up the supply of flowering plants. As a pot plant it is very useful, flowering as it does about the middle or end of May. Other species belonging to the same genus in cultivation are *S. armena*, from Northern Persia and the Caucasus, a more slender, erect-growing biennial, with deeply-cut ovate leaves on long petioles, and a branching leafy panicle of smaller blue flowers in June. It was introduced in 1836. *S. Hofmanni*, also a biennial, is a native of Bosnia, where it is found growing on the margins of woods in rocky places. It is a striking plant, growing from 1 foot to 2 feet high, with hairy stems and leaves, and large white flowers. Once established, it reproduces itself freely from seed, growing well on damp, shady walls. *S. pendula* is a showy free-flowering perennial, with a large tuft of leaves, from which are produced numerous pendulous stems about 1 foot long, with leafy racemes of almost white or pale straw-coloured flowers; these are bell-shaped.

W. IRVING.

## CULTIVATION OF ALPINE PLANTS.

**M**ANY questions have been asked recently concerning the cultivation of alpine plants, and we cannot do better than reproduce the excellent paper read before the Royal Horticultural Society by the Rev. C. Wolley-Dod, on June 9, 1891. The ripe experience of so excellent a gardener, whose illness we deplore, will fully answer our correspondents. Although the lecture was given some years ago, it is as fresh as when it was first delivered.

The flora of the European Alps is the richest mountain flora in the world; but the term "alpine plants" is used to include many which are not found on the Alps—some which are not mountain plants at all. In this sense the word "alpine" is hard to define; but I intend to speak generally to-day of the cultivation of ornamental hardy plants of low stature, such as may be successfully grown amongst large stones, either facing a bank or elevated above the level of the ground. There are some favoured gardens where natural rockeries exist, or where the conditions of the soil with regard to quality or drainage are such that choice and delicate mountain plants may be grown on the ground-level in ordinary borders. Such gardens exist in several districts in England, and are common in Scotland and Wales; few rules are necessary there, where plants have only to be planted and kept clear of weeds in order to thrive. But most of us who wish to grow choice alpinists in our gardens have to make the best of conditions naturally unfavourable, and in doing this we can be helped by the experience of those who have made it their special study. We need not say much of climate and atmospheric

conditions, because they are beyond our control. It may be remarked that high elevation above the sea-level is a great advantage in the neighbourhood of towns, because the impurities in the air are more readily dispersed, and do not collect or settle as in lowland valleys. Good natural drainage is also a great advantage, because, although we can drain the spot in which our alpinists grow, and even our whole garden, still, if the soil of the district is wet and retentive, the local damp seems to affect mountain plants unfavourably. Local differences of climate caused by soil and evaporation are no doubt important factors in the growth of plants, but it would be waste of time to dwell upon the endless particulars which make it impossible that the conditions which prevail on the Alps can be imitated in the valley of the Thames. I

always in rapid motion and changing. Supposing that no part of a garden naturally gives the conditions in which alpinists will thrive, we must make these conditions by artificial means. Those who wish to grow them on flat borders on retentive wet soils, may do so on the ground-level by digging out the soil to a depth of 3 feet, and draining the bottom of the bed to the nearest outfall, and filling up to the surface with soil mixed with two-thirds of broken stone, either in small or large pieces. But in heavy soils, where large stones are easily obtained, still better beds for alpinists may be made by enclosing the space with large blocks to a height of 2 feet or 3 feet, and filling up as before directed. The sides of these stone blocks can be covered with many ornamental plants in addition to those which are grown on the raised surface. But the commonest way of cultivating alpinists is upon what are called rockeries, or loose rough stones laid together in different forms and methods. Of these I will speak more particularly, and then say something about the use of walls and frames for the growth of mountain plants.

### ROCK GARDEN FORMS.

The forms in which the rockery, usually so called, can be constructed may be divided into three: (1) The barrow-shaped rockery, (2) the facing rockery, and (3) the sunk rockery. The first may be raised anywhere; the other two depend partly upon the configuration of the ground. No wood or tree roots should be used to supplement any of them; they must be all stone. The kind of stone is seldom a matter of choice; everyone will use what is most handy. The rougher and more unshapely the blocks the better. The size should vary from 40lb. or 50lb. to 3cwt. or 4cwt. No mortar or cement for fixing them together must ever be employed; they must be firmly wedged and interlocked and depend upon one another, and not upon the soil between them, to keep them in their places. This rule is of the utmost importance; if it is neglected a long frost or an excessive rainfall may cause the whole structure to collapse.

Each successive part of the stone skeleton must be put together before the soil is added. This applies to all rockeries.

### THE BARROW-SHAPED ROCKERY.

The most convenient size for the barrow-shaped rockery is about 4 feet high and 6 feet or 7 feet through at the base. The length is immaterial. If the long sides face north-east and south-west it will afford perhaps the best variety of aspect; but the amount of sunshine each plant gets will depend on the arrangement of each stone as much as upon the main structure. There cannot be too many projections, and care must be taken to leave no channels between the stones by which the soil can be washed down to the base. Overhanging brows, beneath which plants can be inserted, are very useful; large surfaces of stone may here and there be left exposed, and irregularity of form is far better than symmetry. A formal



SYMPHYANDRA WANNERI AT KEW.

will therefore assume that the object of the amateur cultivator of alpinists is to bring together as many ornamental and hardy dwarf plants as he can, and make them flower and thrive in his garden. The degree of his success will depend partly on circumstances which he cannot control, but in a great measure on his own skill and perseverance.

The first necessity for growing choice alpinists is to secure perfect drainage for the soil in which they grow. This may seem strange to those who have seen them growing on the mountains, often apparently in perpetual wet; but there the soil is never waterlogged, or charged with stagnant moisture, but the wet is

arrangement of flat pockets or nests offends the eye without helping the cultivator, as the tastes of alpine as regards slope of surface and moisture at their roots are very various. As for the degree of slope from the base to the summit of the barrow, it will not be uniform. In some places there will be an irregular square yard of level on the top, bounded by large cross key-stones, for which the largest stones should be reserved. In other parts the sides will slope evenly to the ridge; or the upper half may be perpendicular, leaving only wide crevices to suit the taste of certain plants. If the blocks are very irregular in form, and their points of contact as few as possible, providing only for secure interlocking, there will be plenty of room for soil to nourish the plants. Ever-changing variety of stone surface, both above and below the soil, is the object to be aimed at, and any sort of symmetry must be avoided.

(To be continued.)

## TREES AND SHRUBS.

### MULCHING RHODODENDRONS.

**N**OTHING could be finer or more beautiful than the Rhododendrons at Framingham, Norfolk, just now, and, knowing the difficulties under which they are grown as regards soil, the owner is to be congratulated on the results achieved. The soil is anything but suitable for the cultivation of the Rhododendron, and the subsoil is an impenetrable clay. This has to be removed to the depth of 18 inches or 2 feet, and filled in with a compost of loam and leaf-soil. The beds are raised a little above the ordinary level, and the plants are now the pink of perfection. Immediately the flowering season is over all the seed-pods are removed, and the beds heavily mulched with farmyard manure, and to this mode of treatment Mr. Christie attributes his success.

T. B. FIELD.

### THE BEECH TREE PEST.

THE terrible *Cryptococcus fagi* continues to spread, as almost weekly consignments of it sent to us for identification prove, or possibly it is partly that people are beginning to take more notice of such things, as their minds become more educated to perceive the inherent beauty of our English woods and country side. A Fellow, who loves our country life and has on his own estate suffered severely from the pest, makes a new suggestion. Everyone by this time surely knows that the *Cryptococcus fagi* is an insect which lives in dense communities on the outside of the bark of Beech trees. (We have never seen it on the foliage.) Its first appearance is scarcely noticeable, there being only a few minute white spots on the trunk, something like small specimens of mealy bug, but later on it increases with astonishing rapidity. Individually the insect is very small and of a dirty dingy colour, requiring a magnifying glass to detect; but the communities are only too apparent, as the insects throw out from their bodies a mass of white waxy filaments somewhat like cotton wool, which entirely covers them all over, very much as what is called American blight does on Apple trees, except that, whereas the one occurs only in small patches of square inches at the most, the *Cryptococcus* may be found continually in communities of square feet, often in square yards, and not infrequently covering the whole tree from top to bottom, giving it the appearance of having been recently whitewashed. After a year or two the bark of the tree dries up and splits and flakes off in sheets, and then, of course, death soon ensues. On account of the thick covering of waxy substance under which they shield themselves the insects are very difficult indeed—nay, almost impossible—to reach by spraying unless the sprayer is phenomenally powerful and intrusive. Any

wash applied with an ordinary sprayer is simply thrown back by the waxy covering, and rolls off like water from a duck's back. Hitherto all we have been able to advise is to cut down and burn the bark of all hopelessly doomed trees, and to scrub others with a hard and penetrating brush by hand with kerosene emulsion, which will kill all the insects it comes in contact with. Another mixture is 1lb. soft soap, half a pint of paraffin to one gallon of hot water, mixing all well together, and apply with a stout penetrating brush, taking care to keep the wash well mixed while using. Another wash which we feel sure would be more valuable than either, if the sprayer is sufficiently powerful, is 1lb. of caustic soda and 1lb. of crude potash, dissolved in ten gallons of water, and applied to the trees in the form of a spray. This should be done in winter, while the trees are dormant, and the user ought to wear strong leather gloves while doing it, and take care the wind does not blow the spray back into his face. We doubt whether there is a sprayer of sufficiently penetrating power, and the scrubbing is, of course, a very slow and tedious process, and can only be applied in the case of a favourite tree here and there, young trees or trees only just beginning to be attacked. Happy the tree owner who has an eye to detect the commencement of such attacks as these!

Our correspondent's new suggestion is to pass a painter's blow-lamp rapidly over the surface of the affected trees. We should think it would certainly destroy the *Cryptococcus*, and, if done rapidly enough, would possibly not hurt the bark. At all events it is a novel plan, and one worth trying as a first experiment on some tree affected, which the owner would not much miss even if the cure proved fatal; or it might be tried on some tree hopelessly attacked, in which case it could only hasten the inevitable end by twelve months or so. All we urge is, let it be done carefully and rapidly, so that a reliable trial may be made.—*Journal of the Royal Horticultural Society.*

## THE NEW ZEALAND RATA.

### METROSIDEROS LUCIDA AND M. ROBUSTA.

**I**N his interesting article on "Rare Exotics in Ross-shire," which appeared in your issue of January 30 last, Mr. O. H. Mackenzie states that he possesses two species of *Metrosideros*, "one of which is the famous Rata of New Zealand." There are some eleven species of *Metrosideros* found in New Zealand, of which two are known as the Rata, or ironwood, namely, *M. lucida* and *M. robusta*. The former is abundant in the South Island, and the latter is pretty well confined to the North Island, though it is also met with in the northern parts of the South Island, while the South Island form is found in a few localities in the North. Mr. Mackenzie's specimen is probably *M. lucida*, and I see no reason why it should not prove hardy in many another part of Britain besides Ross-shire.

It is well worth growing, as I do not think there are many finer sights in the floral world than to see a hillside covered with bush of varied shades of green, in which are here and there interspersed a few large Ratas aglow with their crimson-scarlet blossoms so numerous as to almost entirely hide their foliage. The petals are inconspicuous, but the stamens are very numerous, and of a brilliant crimson, and, as the flowers grow in bunches at the ends of the twigs, which are close and numerous, the blaze of colour is magnificent. Unfortunately, such effects are not attained in a season or two.

The specimen in my garden I brought as a young plant from its native wilds in 1878 when it was a few inches high, and though it grew healthily it showed no signs of flower till

some seven or eight years ago. At first the flowers were sparse, but gradually became more numerous, and this year it was particularly fine, so that it may be said I have had to wait a quarter of a century for my results. Even now it is not more than 20 feet in height, if so much, and is like a large bush in form. In its native forests, in suitable situations, the Rata grows to a height of 60 feet, and has a trunk 2 feet or 3 feet in diameter. Large trees are even to be met with having a diameter of as much as 6 feet. Grown in a garden it does not develop a trunk, but has a large number of small stems, and the finest specimen in cultivation with which I am acquainted, and which is probably upwards of forty years old, resembles in form a large grain stack, but it is growing entirely in the open at some distance from any other trees. It does not grow naturally in this neighbourhood, but is met with some seventy miles further south, and is plentiful in Stewart Island and all along the west coast of this island.

Round the shores of Lake Wakatipu, a large lake on the eastern side of the Southern Alps, and in the neighbourhood of other of our inland lakes, stunted trees which flower freely are common growing amongst the rocks. As the tree ascends our mountain sides as high as 4,000 feet, and as it occurs in the Auckland Islands, which lie away out in the Southern Ocean, it has some claims to being considered hardy. What the exact amount of frost it will stand maybe I cannot tell, but it must be considerable. It should prove perfectly hardy in all the milder parts of England and the greater part of Ireland. I fear, however, that few growers will have sufficient patience to go in for its cultivation; still, its appearance without its flowers is pleasant and attractive, and the new growth in spring is often of a bright reddish brown colour, which makes the tree a striking object. At one time it was tolerably universally believed that the North Island Rata (*M. robusta*) began life as a climber, which as it gained strength gradually strangled the tree which in its younger years afforded it support. If any doubted the bushman would show a climbing Rata, and point to the remains of a tree of some other species embedded in the heart of some gigantic Rata which had been felled.

The true explanation is that there is another species bearing similar flowers (*M. florida*), which is a climber, and always remains so, whilst *M. robusta* is always a tree. But if a seed lodges in the fork of some other tree, which not infrequently happens, the young tree, when established in its aerial situation, sends down roots searching for greater means of subsistence than can be found in its lofty perch; and these roots, following the surface of the host downwards, at last reach the earth, when growth is increased, and eventually those aerial roots unite, and, forming the Rata trunk, are ungrateful enough to repay the kindness of the nurse of their infancy by compassing its death.

The frequency with which young Ratas are met with growing upon other trees suggests the idea that this epiphytic habit is designed to preserve the species in the dense forest. With a slow-growing tree like the Rata seedlings on the ground would be apt to be smothered; but in some lofty niche on another tree they have an airier situation and fewer competitors, these being probably a few epiphytic Ferns or an Orchid whose competition ceases when the Rata roots reach the ground. This, however, is only theory.

Dunedin, New Zealand. A. BATHGATT.

## THE LILIES.

(Continued from page 381.)

**LILIUM LOWI** (Baker).—See *L. bakerianum*.

**L. Marham**, a pretty hybrid Lily between *L. Martagon* or *Martagon album* and *Hansonii*, in which the graceful growth of the *Martagon* and the large, brightly coloured flowers of *Hansonii* have combined to make a very charming form. Stems, bulbs, and leaves as in a well-developed *Martagon*. Flowers twenty to thirty, lightly arranged in a long spike coloured light buff, shot with bronze and minutely dotted crimson, their surfaces glistening, and the fragrance is very sweet. Rare in cultivation. Flowers in July.

*Var. Ellen Willmott* is a selected form, with flowers as large as those of *Hansonii*, the stems taller and much stronger, and the colouring similar.

**CULTURE AND USES** as for *L. Martagon*, which see.

**L. maritimum** (Kellogg.), the Californian Maritime Lily.—A dainty species of the well-flowered set growing on the coast of California about San Francisco. It is difficult to grow in the open in Britain, but it thrives well in a roomy pan under decidedly damp treatment. Bulbs white, really a small, loosely built, scaly rhizome, the scales of which are two to three jointed and very brittle, the roots proceeding from all surfaces of the root stock. Stems very slender, 18 inches high, scarcely at all rooted at their bases. Leaves lance-shaped, broadest at the tips, rough on the margins, scattered above, and clustered or densely whorled below. Flowers generally solitary, although two and three are often produced, campanulate, the tips fully reflexing,  $1\frac{1}{2}$  inches across and the same in length, colour orange-red, spotted dark purple inside, flushed brown outside, not fragrant, horizontally poised on long, nodding foot-stalks. This Lily has a flower very much like that of the Californian *Fritillaria recurva*. Its nearest allies are *Grayi* and *Bolanderi*. Rare in cultivation. Flowers in July. It grows in low-lying, peaty meadows in its native habitat.

**CULTURE AND USES**.—The cultivation of this Lily is difficult in the open, and we recommend that it be grown in a frame. It delights in a root-run of peat, plenty of water in its growing season, and drier treatment during winter whilst at rest.

**L. Martagon** (L.), the European Turk's Cap Lily.—A familiar species, growing in all soils and situations, and very hardy. It enjoys an open place. Bulbs ovoid, much pointed, yellowish bronze, and generally larger than a hen's egg, the scales multitudinous and awl-shaped, the roots stout, deeply descending. Stems 3 feet to 5 feet high, somewhat slender, and very flexible, generally dotted purple, basal roots none. Leaves in three to four whorls, narrowly spoon-shaped, broadest below, those near the inflorescence mere bracts. Flowers ten to thirty, arranged on a nodding raceme, each under 2 inches across, the flower

is reflexed purple of various shades, and always spotted with livid purple, the scent very strong. Common in cultivation. Flowers in July—August. Widely known as the old purple *Martagon*, and scattered over a vast area of the northern Old World, especially in Central Europe.

*Var. album*.—A graceful variety, well known in English gardens. Bulbs maize yellow, shaped as in the type. Stems 4 feet to 5 feet high, pale green, very smooth, basal roots none. Leaves pale green, arranged in dainty whorls, smallest near the top of the stems. Flowers twenty or more in an elegant raceme, pure white, the inflorescences often quite as long as the stems that support them, and the anthers are always yellow. A Scotch form, much given to fasciation, has a congested in-

produce five to eight stems each, and bearing hundreds of flowers, the stems as high as the tallest man, and they made masses of roots from their bases—a very unusual condition.

*Var. Catani* (or *Cattaniae*), the black *Martagon*, has the bulbs, stems, and leaves of *dalmaticum*, and deep purple-maroon flowers, very glossy and quite unspotted. Common in cultivation. Flowers in August. Grows intermingled with *L. Martagon* in Dalmatia.

*Var. glabrum* (Spreng). See *album*.—We have seen several forms of *Martagon* in gardens with flowers ranging from faintest pink to rich claret, but not in sufficient quantity to warrant notice here. We have ourselves found many interesting colour forms in imported *L. Martagon*, and of these the pink forms especially appear to be worth separating.

**CULTURE AND USES**.—The true *Martagons* are the easiest Lilies to grow of the whole race. They are useful for the border, and appear to better effect amongst hardy plants than in beds, and one sees them at their best in small colonies. The old purple *Martagon* thrives well in grass in the wild garden, and it is useful for planting among shrubs. Soils for it should be light, and it prefers a sunny exposure and altogether poorer conditions than are required for its varieties. The variety *album* requires greater care. It is best in a slightly shaded place where the soil is deep, and it is necessary to well drain the subsoil. In clay and naturally heavy soils, grow it entirely in leaf-soil. *Dalmaticum* and its form *Catani* prefer stronger soil. These may be grown in damp places, such as would be quite unsuitable for the others. Early planting is of the utmost importance for the whole group. They have no stem roots that would be of service to them, and unless the basal roots are established before winter a poor flower spike is the result. All may be grown in pots if established in the previous August, otherwise they will not flower well till the second year.

(To be continued.)



XANTHOCERAS SORBIFOLIA IN THE MISSOURI BOTANIC GARDEN, ST. LOUIS.

## MISSOURI BOTANIC GARDEN NOTES.

MORE distinct species or varieties of plants are in flower and fruit at present than has been the case at any time this season. The large number of Orchids in flower is due to the great additions

to the collection during the past few months. The collection contains more than 1,000 species and varieties, and is being constantly added to. Recently a consignment containing 181 species was received from Messrs. Sander and Sons, St. Albans, England.

Without doubt the only house in America devoted entirely to the cultivation of Bromeliads is to be found here at the garden. *Aechmeas*, *Tillandsias*, *Bilbergias*, *Bromeliads*, &c., have been gathered together until the collection now numbers some 150 species. Dr. L. Wittmack, the eminent botanist from the University of Berlin, who is in charge of the German agricultural exhibit at the World's Fair, has given valuable assistance in the

flourescence without the grace of the true plant, and it grows much stronger. Another form, widely spread in Continental gardens, has pink dots on the inner surface. Fairly common in cultivation. Flowers in July.

*Var. dalmaticum* (the Dalmatian purple *Martagon*) has bronze-tinted bulbs of large size, dark brown stems 5 feet to 6 feet high, foliage very broad, whorled, often striped with brown, and with from twenty to forty wine-purple flowers more loosely arranged on the stems, and dotted in the lower half with dark maroon. The petals are quite shiny in appearance. This plant is the strongest growing form of all the true *Martagons*. We have seen old-established compound bulbs in rich loam

identification of a portion of the collection. During the past two years the bulbous plant section has been given special attention. A competent gardener has been placed in charge and the collection greatly increased. Among others are the Gladioli, which number 350 species and varieties, the Dahlias 200, and the Cannas, which include all available species, 200. Approximately, 1,600 species or varieties of all genera are represented in the collection of succulents.

The increase of these plants by seed propagation — a slow process, but more satisfactory in many respects — has received much attention during recent years.

There is a collection of Yuccas, many of which, such as *treculeana canaliculata*, send up immense panicles of flowers each season. An attempt to imitate Nature in the arrangement and planting of a Cactus house has proved quite satisfactory.

The Fern and Cycad house is one of the beauty spots of the garden, huge Tree Ferns, *Cibotium glaucum*, *Dicksonia antarctica*, *Alsophila australis*, *A. armata*, and others are grown in a large house similar to that for the Yuccas. Gradually the Ferns are being eliminated in one house to make way for Cycads, with which the entire house will be planted. A list of all the plants in the garden is made every five years to determine the loss or gain in plants during that period. Such an inspection was made in the autumn of 1903, and the result, while not as great as had been anticipated, showed that 11,357 species and varieties were then in cultivation. Of this number 5,684 woody and herbaceous plants were growing in the garden out of doors, and 5,673 tender plants were under glass.

St. Louis.

F. K. BALTHIS.

## A NEW HYBRID RACE OF IRISES.

THE advent of an entirely new hybrid race of Irises must be regarded by all hardy flower lovers and enthusiasts as of importance. But even the most ardent of hardy plantmen could not have anticipated the admiration that the little group of Onco-Regelia Irises excited that M. C. G. Van Tubergen, jun., brought from Holland to the Drill Hall on May 17 last. Never before, perhaps, has the floral committee of the Royal Horticultural Society been so entirely unanimous in its awards to novelties. The fact that seven awards (three first-class certificates and four

awards of merit) were given is perhaps the best proof of the exceeding importance of this new race. By combining the great beauty of Iris Korolkowi with Iris iberica for the most part, M. Tubergen has succeeded in producing a race that, while retaining all that is good of the permanent characteristics of the species, yet largely embraces not a little of the picturesque beauty, colouring, and remarkable veining of the Cushion Iris, and this with flowers of the largest size, as, e.g., *I. susiana*, *I. sofarana magnifica*, and others. It was indeed a happy thought that caused M. Tubergen thus to unite the beautiful and nearly evergreen *I. iberica* with *I. Korolkowi*, which is far more amenable to general cultivation. Generally the habit of growth in the new race is that of

*I. Korolkowi*, while the colouring and tracery of the veins of the other parent are clearly seen in many of the new comers. Already M. Tubergen has the experience of from six to eight years with the new hybrid kinds, and he reports that without exception the entire batch has proved, not merely hardy, but increases quite freely. So much, indeed, was obvious when it is remembered that, of some dozen or more kinds set up on the occasion named, not less than half-a-dozen spikes were seen of each. Here again there is evidence of the enduring qualities of this new set, and as further showing that the exhibit in question had not cleared the collection, I may say I have since received a further half-dozen sorts from M. Tubergen, all distinct from those at the Drill Hall meeting. The average height of the established plants, so far as known, is from 15 inches to 18 inches, and when it is stated that some of the best plants have this season carried eight or ten spikes, we have sufficient proof of the merit and garden value of one of the most beautiful types of hardy Irises. Not only were we struck by the extreme beauty of several kinds, but equally by the great size of the blossoms

and the novelty of colour. And, as though this were not enough, we have yet to record the welcome fact that each spike is two-flowered; the second flower of the cut spikes expanding quite well in water. This, then, is a more or less external view of the merits of this new break in the Iris family, and we feel sure that those readers of THE GARDEN who through long years have endeavoured to satisfy the obviously insatiable demands of the Cushion Irises will find in these Onco-Regelia kinds a more than worthy substitute. The new race proves just one thing more, viz., that the Iris genus has by no means reached its limitations, and we may look for more, not merely

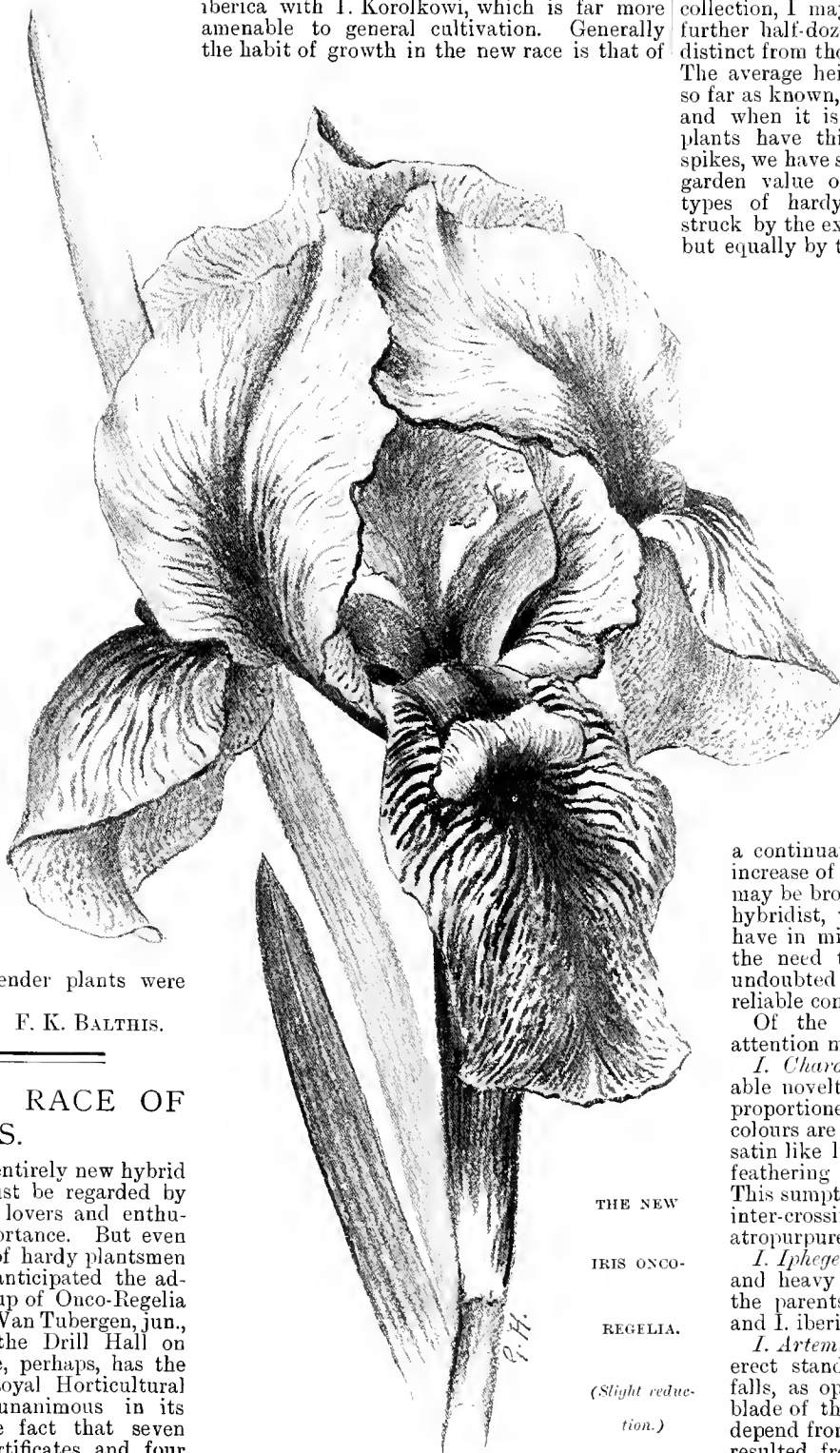
a continuance of the above kinds or an increase of varieties, but other races that may be brought into being by the careful hybridist, who will, we doubt not, ever have in mind the climate of Britain and the need that exists for new plants of undoubted merit, with a thoroughly reliable constitution.

Of the varieties that attracted my attention most I place

*I. Charon* first, as the most remarkable novelty in colour, and a bold, well proportioned flower withal. The chief colours are old gold and bronze, and with satin like lustre in the standards the gold feathering and bordering is well seen. This sumptuous kind was obtained by the inter-crossing of *Korolkowi venosa* and *atropurpurea*.

*I. Iphegenia*, with its claret-purple falls and heavy blotch, is also a noble flower, the parents being *I. Korolkowi concolor* and *I. iberica*.

*I. Artemus* has the distinction of quite erect standards and distinctly drooping falls, as opposed to such as arch at the blade of the fall. In this kind the falls depend from the claw, as it were. *Artemus* resulted from the crossing of *Korolkowi*



THE NEW

IRIS ONCO-

REGELIA.

(Slight reduction.)

violacea and Marie, the standards of rich purple and falls of dark violet, with black velvet blotch.

*I. Antigonæ* came from I. Korolkowi violacea and *I. iberica* Van Houttei, and in the silvery grey and lilac and intense veining the influence of the latter is obvious.

*I. Thaliæ*, while distinct from the above, is of the same parentage.

*I. Hera* is the result of crossing *I. Leichtlini* with *I. paradoxa*, and

*I. Hecate* has *I. Korolkowi* and *I. Lortetii* for its parents.

Of those received from Holland and as yet unnamed, I select No. 54 as the gem of the lot, with *I. Korolkowi leichtliniana* crossed with *I. paradoxa* for parents. The standards are ovate,  $1\frac{1}{2}$  inches wide at the blade portion,  $2\frac{1}{2}$  inches long, and wine red, with extremely delicate veining. Falls nearly horizontal, very stiff, an inch long and wide, roundly oval, the blackish maroon blotch extending to the short dense beard of the claw and merging to a more reddish hue at the tip of the blade. The sides of the blade have a conspicuous white ground, over which a thrice-forked veining of maroon only tends to make this fascinating flower the more charming. The flower is as unique in its way as Charon.

No. 2 is an extremely delicate flower, the groundwork of silvery grey, finely and copiously veined with reddish crimson. The veining of the standards is quite remarkable. The parents are *Korolkowi* (type) and *iberica* Van Houttei.

No. 18 is a flower of silvery rose, with red veins, the falls more heavily veined with crimson, and with crimson blotch at base. This is from *Korolkowi violacea* crossed with *iberica* Van Houttei.

These three are very distinct from those shown at the Drill Hall, and though unnamed at present, afford some opportunity for comparison by colour alone.

Thus it will be seen that quite an elaborate set of crosses has been made and duly registered. Equally apparent is the way in which the pretty *Iris Korolkowi* in some form or other has been freely used as seed parent, and this, in conjunction with *I. iberica* forms, has given a series of novelties of remarkable beauty.

Hampton Hill.

E. H. JENKINS.

## THE INDOOR GARDEN.

### NOTES ON FREESIAS.

WHOMEVER wishes to have a succession of these flowers from December onwards must soon make preparations for potting the first lot of bulbs. The earlier they are potted the longer will be the season of growth, and therefore better results may confidently be expected. Freesias are not difficult to grow provided you give them cool treatment, a sandy soil, and well-drained pots. Take care to keep the bulbs in their respective sizes, otherwise when the plants are fully grown the results will be somewhat disappointing, tall and short growths will intermingle and half the flowers will be hidden. If the same sized bulbs are placed together a much more uniform potful of plants will be obtained, and all the flowers will show to advantage. Provide plenty of drainage for the pots, for a great deal depends upon this; growth will never be satisfactory in soil that is partially water-logged. So far as my experience goes I have found that Freesias do not require much soil, therefore I recommend them to be grown in  $4\frac{1}{2}$ -inch pots instead of in 6-inch as is sometimes practised. Not only are they more useful for decoration in the

$4\frac{1}{2}$ -inch pots, as these are more easily handled than 6-inch pots, but I find that the plants grow better. It is necessary, however, to give them frequent supplies of manure water when growth is well advanced, and to continue doing so until the flowers open. This treatment much improves the colour of the foliage and the size of the blooms.

Keep the plants in a cold frame until there is danger of frost, when they must be moved to a house where the temperature is about 60°. Keep them near to the glass so that the leaves do not become tall and weak. Strong healthy foliage means good flowers, and every means should be taken to produce this. Until the bulbs have started into growth practically no water is necessary, and it must be given carefully until the soil is full of roots, then a good deal will be necessary if the plants are to give of their best. Whether Freesias are well staked or not makes a great difference to their appearance. Their stems are so slender that staking is absolutely necessary. The stakes must be thin, split bamboo canes I have generally used, and the matting, too, must be thin and twisted. Give as few ties as possible. Freesias are invaluable during the winter months, and no one who then needs flowers for decoration can afford to dispense with them. I have always found that the best results are obtained by potting early—the end of June or early July—keeping the plants cool, giving them a sandy soil and plenty of drainage, and frequent supplies of manure water when they are growing freely.

H. P. A.

### LIPPIA CITRIODORA.

THE Lemon Plant was formerly much grown for market. The plant, which attains a height of from 1.50 mètres to 2 mètres, is much esteemed for its Lemon-like perfume. The scarcely perceptible purplish white flowers are produced in small spikes; they, too, are perfumed, though not so strongly as the leaves. This plant bears several names—*Lippia citriodora*, *Verbena triphylla*, and *Aloysia citriodora*. No amateur used to be without it; this explains why it is still so often seen in older gardens. On account of its perfume people used to use it for window-boxes, as they did Musk and Basil; but everything changes, and the Lemon Plant is now rarely grown, yet it is easy to cultivate and of fairly rapid growth. Originally from Chili it does well in the Orange house or unheated greenhouse for the winter. During summer, beginning from May, it can be grown in the open air in a sunny and airy position, and then needs copious waterings. Propagation by cuttings of growing shoots is easy; they strike freely in sandy soil. As soon as they have rooted they are potted into small pots. To form bushy plants pinch the ends of the shoots; if, on the other hand, a stem is required, they are allowed to run up to the height desired, which may extend to 3 feet. This height attained, the stem is pinched off and growths trained so as to form a head of five or six branches. These, pinched again in their turn, will in a year form a well-shaped plant. In the meanwhile they will have been repotted into larger pots. Trimmed and again repotted into still larger pots the plants will be useful the second year, and also in the third year. The soil which best suits the Lemon Plant is a good loam, with the addition of some well-decayed manure and silver sand. If kept cool the Lemon Plant loses its leaves during the winter without taking any harm; in an intermediate temperature, on the contrary, it retains them, only losing the oldest.—*Le Jardin*.

### RECENT PLANT PORTRAITS.

THE June number of the *Botanical Magazine* contains portraits of

*Tupistra Clarkei*.—Native of Sikkim. This is a member of the *Aspidistra* family, and is by no means a new plant, as it first flowered at Kew in 1877, but apparently not again till 1903. It requires the temperature of a stove, and is more of botanical than horticultural interest.

*Bulbophyllum Weddellii*.—Native of Brazil. This is also known under the synonym of *Didactyle*

*Weddellii*. It is a curious Orchid, but of little horticultural beauty.

*Chamædorea pulchella*.—Native of Tropical America. This Palm was introduced by a Belgian nursery company in 1885, flowering at Kew in 1891, and again in 1903, the naked part of the stem having in the meanwhile increased from about 9 inches to 8 feet in height. Its flowers are yellow, but, though numerous, of insignificant size and little beauty.

*Impatiens Oliveri*.—Native of Tropical Africa. It is also known as *I. Thompsoni*. This is a most ornamental and beautiful Balsam, with large, flat, pink flowers with pure white centres. The flowers in a wild state are said to be white and scarcely more than  $1\frac{1}{2}$  inches across, but under cultivation they have greatly increased in size and beauty, and rival those of *I. grandiflora*, figured on plate 7826 of this work. As it blooms freely in a greenhouse, and is of vigorous habit of growth, it is likely to get into general cultivation before long.

*Lysimachia Henryi*.—Native of Western China. This is an ornamental plant with bunches of conspicuous deep yellow flowers. It bids fair to become as great a favourite as the Creeping Jenny (*L. Nummularia*), and it is an equally vigorous grower of more robust habit, though probably not so hardy. The flowers, too, are of a richer yellow. It was sent from Ichang, in China, by both Dr. Henry and Mr. E. H. Wilson to Messrs. Veitch.

W. E. GUMBLETON.

## THE ROSE GARDEN.

### ROSE WALTHAM RAMBLER.

AMONG the exhibits at the Temple show last week few were more generally admired than the many beautiful groups of Roses, and it is not too much to say that most of these owed a good deal of their charm to the inclusion of what, for the want of a better name, have come to be called garden or decorative Roses. Their graceful form and freedom of flowering have quickly made them popular favourites, and no Rose garden can now be considered complete without the inclusion of some of the newer rambling and other free-growing Roses. The introduction of these has to a great extent revolutionised Rose gardening, and added much to the picturesqueness and relieved the monotony of Rose gardens. It is hardly too much to say that the free use of some of these lovely free-growing Roses has been in a large measure responsible for the increased attractiveness of gardens, a feature that has been most marked within recent years. The dwarf-growing Hybrid Teas, Hybrid Perpetuals, and others of small stature have their own places in the rosery, but they gain a great deal by being associated with rambler-covered pillars, poles, or other simple arrangements.

Among the many beautiful Roses of free growth shown at the Temple show Messrs. William Paul's Waltham Rambler was much admired. There were some well-grown plants of it bearing a profusion of large panicles of single rosy pink flowers, the delicate yellow stamens standing out clearly in the centre. It is of very vigorous rambling growth and perfectly hardy, and is excellent for covering arches, buildings, and pergolas, also for running over old tree stumps, for rooteries, and for forming other picturesque features in the garden. Out of doors the plants bloom in the middle of summer (July), and the flowers, like those of Crimson Rambler and other multiflora varieties, last a long time in perfection, greatly excelling in this respect the single-flowered Roses which bloom in early summer, whose effect in the garden is so fugitive. Rose Waltham Rambler was raised from seed in the



Waltham Cross nurseries. It was shown in 1903 at the Temple show by Messrs. William Paul and Son, and then obtained an award of merit. A. H. P.

PROSPECTS FOR THE ROSES OF 1904.

SPEAKING generally, I am inclined to think that it is a good many years since Roses of all kinds promised so well as they do this year, certainly not for the last ten years; and this applies not only to those for exhibition, but also to those for the garden, and more particularly to that class known as summer-flowering or the June Roses. Their long boughs are literally laden with buds, and if we get no June frosts 1904 will be a Rose year that will long be remembered. The causes are not far to seek. Last year the early Roses were in some cases entirely absent. The severe frosts of May and June completely destroyed all flowers, notwithstanding the heavy rains of the year. All Rose wood last autumn ripened well, quite contrary to one's expectations; the enforced rest did the trees good. This year since the dormant buds burst they have experienced no serious check.

It appears to be the general opinion that Roses are and will be late; it, however, is not my own personal experience. Writing under date of May 26 I find I have in flower the following

CLIMBERS.

These, with one exception, are not on walls, but on fences and arches. Reine Olga de Wurtemberg, William Allen Richardson, Gloire de Dijon, Mme. Berard, Longworth Rambler, Ards Rover, Claire Jacquier, Aglaia, Mme. Alfred Carrière, Reine Marie Henriette, Carmine Pillar, and Sinica Anemone; dwarfs, Grace Darling, both the Cochets, Belle Lyonnaise, Mme. Eugène Resal, Blanc Double de Coubet (the first Rose to flower with me this year; its first bloom opened on May 15), La France, &c., while many others will be out before these lines are in print.

It is too early to write definitely as to the prospects of the year from an exhibition point of view, but on all hands there is a general feeling of contentment with the existing state of things amongst exhibitors that speaks volumes, and there is little doubt that visitors this year will see such a feast of Roses at the Temple on July 6 that will be well worth travelling (as many will travel) from Scotland, Ireland, and Wales. I will endeavour to write you somewhat more definitely as to the exhibition Roses a little later if I may trespass on your space. HERBERT E. MOLYNEUX.  
*Brantwood, Balham, S.W.*

WORK FOR JUNE.

THIS is a very busy month amongst the Roses, and the rosarian will begin to see the result of his labours during April and May. Those who have provided the Roses with good soil, deeply cultivated, judicious pruning, and manuring will soon reap their reward.

*Aphis* is beginning to get troublesome upon walls, and also on plants not in the best of health. One finds very little, if any, of this pest on plants growing in the open in a free and healthy condition. There is no doubt that paraffin is the best remedy for *aphis*, but it must be used with caution. A useful recipe is to dissolve one quart of soft soap

in two quarts of boiling water. Remove from the fire, and, while still boiling hot, add one pint of paraffin oil, and immediately churn the mixture with a syringe. In a few minutes a perfect emulsion will be made. For use dilute with ten times its volume of water. Where stimulants are required Peruvian guano or fish guano are excellent aids. A teaspoonful given to each plant once in fourteen days will soon show that it is appreciated by the plants. Of course, only strong, healthy plants will be stimulated. Sheep and cow manure with soot make an excellent liquid manure for Roses. To really strong plants in bud liberal doses may be applied, using about one gallon of the liquid to one gallon of water. Give each plant a good soaking after rain, or, if the ground be dry, give plain water first.

Use the hoe freely and frequently, and at each watering with liquid manure. The Dutch hoe is the most handy. Avoid treading on the soil as much as possible.

*Disbudding* must be done by all who intend to exhibit, and, even by those who do not, varieties that produce beautiful individual flowers should be disbudded. Quality of blossom is now so much

planted with young grafted plants. The soil should previously be well trenched. Do not fail to plant a number of Liberty and Mme. Abel Chatenay, two fine Roses for cutting.

*Young plants* of Tea Roses, if purchased now in 5-inch pots, make fine growth by the autumn for forcing next winter. They would need a shift at once into 6-inch and 8-inch pots.

*Tea Roses by low walls* will pay for extra attention just now, as their buds are developing fast. Make saucer-like cavities around each plant, and give liquid manure, in which soot is freely used, about every ten days. That grand Rose Comtesse de Nadaillac and many other gems may be grown best against walls, although they blossom rather too early for exhibition.

To preserve Tea Roses from injury by wind and rain paper up the blooms when quite dry, but leave the top open. These blooms should be shaded with the usual canvas shades. P.

ROSE SINICA ANEMONE.

I THINK this is one of the best of the single Roses. The colour is a soft pink, and the shining green leaves



ROSE WALTHAM RAMBLER.

sought after. It will not be advisable to disbud rashly, or we run the risk, by diverting the sap to one bud, of making that one coarse. Roses with flexible shoots, such as Marie Baumann, Earl of Dufferin, &c., should be supported with small sticks or their heavy blossoms will droop to the ground.

*Stocks of all kinds* look well this year. Hoe these frequently and encourage a good tilth; mere scratching is almost waste of time. Once obtain a good tilth, then the weeds are easily kept down by means of the Dutch or push hoe.

*Pests of all kinds* abound now, and it is only by diligent search once or twice a day that they can be kept in check. The mason bee is a very daring enemy, and, if uncaught, he will almost strip a plant of its leaves. Near by walls and gravel paths are his favourite nesting-places.

*Plants for forcing* next winter should now be reotted and kept under glass for a time. Put a little bone-dust into the ordinary compost, say, a 5-inch potful to a barrowload of the compost. If oyster shells are procurable, use these for crocks to pot Roses.

*Rose houses* that have been erected especially for the culture of this favourite flower should now be

stand out against the dark stems. Here in the Thames Valley it grows well. I planted three trees eighteen months ago in different aspects, and they are a success and full of flowers, which are quite 5 inches across, with very broad petals. It is almost an evergreen.

*Thames Valley, Berks.*

J. S.

ROSA SERICEA.

THIS pretty and interesting Rose has been the first to flower in the open in the Royal Botanic Gardens, Edinburgh, this year, and some plants in the herbaceous borders have been very pleasing with their charming creamy white flowers. It cannot, of course, be called a showy Rose, but it is a pleasing one, and well repays careful attention. The plants in the Edinburgh gardens are in bush form; the flowers are very pleasing and the leaves silky. It was introduced so long ago as 1822 from India. The species of *Rosa* are interesting, not only because they are frequently beautiful in themselves, but for the reason that they are the forerunners of the great groups we see in the summer garden at the present time. S. A.

## GARDENING OF THE WEEK.

## FRUIT GARDEN.

## LATE GRAPES.

**N**O time should be lost in thinning late Grapes as soon as they are set, every care being taken not to touch the bunches with either the head or hands. Thin large varieties freely and those that are to be kept during the winter. A light shade given to such varieties as Gros Colmar, Lady Downe's, Appley Towers, and Lady Hutt is beneficial to the fruit and vines. Keep a sharp look-out for red spider, and sponge the leaves on its first appearance. Pay attention to stopping laterals, tying down and regulating the shoots, always avoiding crowding the principal leaves. Do not overtax the vines by heavy cropping. Examine the borders regularly for water, as light soils require much more water than retentive ones. Leave a crack of air on the top and front lights at night, and ventilate early on bright mornings. Keep a night temperature of 70°, falling to 65° in the morning, rising to 85° with sun-heat during the day.

## POT VINES.

Young vines grown for fruiting next season should be stopped as soon as they reach 8 feet or 9 feet. Keep all laterals closely pinched back, and see that the main foliage is not injured in any way. Mulch and feed liberally as the vines increase in strength, close early in the afternoon, and thoroughly syringe all the foliage. Vines grown for planting out should be allowed more lateral growth. This will encourage root action.

## BANANAS.

Give plants in beds whose fruits are developing plenty of heat and atmospheric moisture, with liberal supplies of warm liquid manure and occasional sprinklings of some quick-acting fertilisers. Plants grown in tubs must be examined more often and not allowed to suffer for want of water. Tie up large bunches with strong cord, as they are liable suddenly to fall off just before changing colour.

## FRESHLY-GRAFTED TREES.

Grafts that have united are making free growth; remove the clay and examine the ties to see that they are not injuring the stock or scion, rebind those that require it more loosely, and support the grafts with stakes to prevent being damaged by wind. Remove young growths as soon as they appear below the grafts.

## BUSH FRUITS.

Keep weeds in check by the frequent use of the hoe. Mulch and apply liquid manure when available to old plantations. Black Currants will especially benefit by its application. Thin and regulate the shoots of Currants and Gooseberries, retaining sufficient young wood for extending. Examine the trees for red spider and caterpillars, and syringe the trees with soft soap, afterwards washing with clear water.

*Impney Gardens, Droitwich.*

F. JORDAN.

## KITCHEN GARDEN.

## GATHERING VEGETABLES.

THIS duty is, owing to shortness of labour or other causes, too often given to the apprentice or garden boy. Where it is possible it should be done by an experienced hand, one who knows how to do the work economically. All vegetables should be gathered in the morning, just sufficient for one day at a time. This ensures their being fresh and crisp, especially in the case of Cauliflower, Lettuce, Spinach, &c. The heaviest vegetables should, of course, be got first and put in the bottom of the basket, which should be large and strong, laying the lighter ones, such as Lettuce, Salads, Asparagus, &c., on the top. If they are to be sent by rail they must be packed crisp and fresh, and should not be exposed to wind or strong sun. Sprinkle them with cold water, and care should be taken not to pack them too tightly. Carrots, Onions, Asparagus,

French Beans, &c., should be tied into bundles and rolled into a Rhubarb or Cabbage leaf, so that all may arrive fresh and in good condition.

## MARROWS.

These should now be planted out as advised in a previous calendar. See that the plants are well hardened off, and give them a good watering after planting. Cover for a few days with hand-lights, and shade from strong sun till they begin to grow. Those growing in frames will now have made rapid progress, and if the first fruits are set the plants may be grown somewhat hardier.

## TOMATOES.

Those for planting out of doors should now be ready. Plant as advised on the warmest and sunniest part of the walls. Place a stake to each and give water after planting. Early plants indoors are now setting freely, and should receive careful attention, with watering, pinching, and frequent top-dressings. Give air at all times to this crop, as this is the best antidote against disease.

## CUCUMBERS.

Where frames are now being emptied of bedding and other plants, these may be utilised for Cucumbers, whether heated with hot water or not. Plant as advised at the top of the frame, one plant for each light being sufficient. Attention to syringing and watering and careful and frequent pinching will amply repay the trouble to the grower.

THOMAS HAY.

*Hopetown Gardens, South Queensferry, N.B.*

## FLOWER GARDEN.

## PINKS AND CARNATIONS.

IN early districts the Pinks are in full bloom, and many Carnations have just a touch of colour. These latter will greatly benefit from a sprinkling of any quick-acting artificial manure. If a portion of the bed or border is shaded with tiffany the flowering season will be greatly prolonged, and it will prevent the rains from damaging the flowers. The final tying should be done, taking care not to bunch the stalks or tie in the "stem-leaves." Pinks which are overhanging the walks will be much cleaner if the flowers are supported with some twiggy brushwood. While in flower the seedling Carnations should be looked over, weeding out the poor varieties and marking the desirable forms for layering. During dry weather water copiously.

## WEEDS AND WEEDING.

The hoe should be worked freely whenever possible to keep down weeds and aerate the soil. It is advisable to do all necessary hand weeding as soon after the rains as the state of the soil will permit, as the work can be done much more quickly and better while the soil is moist. Walks should be treated with weed-killer before the weeds become too prominent, taking care not to apply the weed-killer too near the grass verges or plants. In these places hand-weeding must be resorted to. A stiff, short-bladed knife will be found useful. Many of the earlier spring-flowering plants, such as the Fritillaries, are now ripening their foliage, and unless kept clear (the robust Crown Imperials can look after themselves in this respect) will be overgrown by their neighbours to the detriment of next year's display.

## CONIFERS.

The points of young growths contrast finely with the older foliage. The dwarf forms should receive attention, removing any gross branches and those which show signs of reverting to the type. Young trees frequently either fail to develop the leading bud or the shoot becomes broken by birds or wind. In such cases the best placed growth should be selected to form a leader, carefully tying it to a stick lashed to the main stem.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## INDOOR GARDEN.

## TREE CARNATIONS.

AT the present time great efforts are made to grow and flower these plants well during the

winter months with the least possible outlay, and at the same time to obtain the biggest return for the money expended. Planting them in beds arranged on benches is the popular method of culture on a large scale, involving, perhaps, the least amount of labour and space. By this method the greatest number and probably the best flowers are obtained. It matters nothing, however, whether the plants have to be grown and flowered in pots or be planted out in beds as stated. In either case they must by this time be strong for the purpose. Potting them finally into their flowering pots should be accomplished with despatch, and the same will apply to planting them out in beds. Eight-inch pots are sometimes used as the size in which to flower them, but in this matter it is better to be guided by the strength of the plants, as also the constitution of the variety or varieties that are grown, as generally 7-inch and 8-inch pots are large enough. It is not so much the size of the pots, the methods in potting, or even the nature of the compost in which the plants are placed, but good attention to detail in their culture afterwards that ensures the coveted success. It is necessary to be diligent in watering and admitting air, staking, or in other ways supporting their growth, as well as to keeping the plants free from filth of every kind. These conditions apply equally to both methods of culture, the only other attention necessary to those planted out being to stir up occasionally the surface soil of the beds to keep down weeds and admit fresh air to the soil.

## WORK IN GENERAL.

There is at this season so much work in every direction that requires to be done that even matters of great importance sometimes get overlooked. The preparing of plants of all kinds for decorative work during the winter is a matter to which attention must at once be given. An unlimited supply of the following are in many instances required, viz., Dracenas, Aralias, Pandanus, Aspidistras, Carex, Alocasias, Dieffenbachias, Acalyphas, Eulalias, Tradescantias, and Grasses. These all require to be propagated, potted, cleaned, and in every way prepared for the work they will shortly be called upon to do. Palms also require similar attention, and whilst these should be shaded well during sunny weather, they also should be syringed abundantly to sustain them in a healthy state, and by the careful and judicious use of soot water to their roots a dark green and healthy appearance will be imparted to their growth.

The weak, superfluous growths of creepers of every kind should be kept well thinned out, and those that are to remain be tied and trained in position. To the flowering kinds perhaps it is necessary to afford the best attention, for often a great deal of their real beauty is sacrificed in allowing the growth to become a tangled mass of shoots.

Plant Ficus repens to cover rockwork and bare spaces on walls occupying moist positions in green-houses and conservatories. It should not be clipped in close, but be allowed to ramble at will and assume a natural and picturesque appearance.

*Tranby Croft, Hull.*

J. P. LEADBETTER.

## BOOKS.

**A notable reprint of Parkinson's "Paradisus."**—Messrs. Methuen have indeed done well, not only to undertake a complete reprint of Parkinson's "Paradisus," but to have done it so admirably. The new title says "faithfully reprinted"; it is, indeed, faithfully reprinted, as is easy to perceive on setting the new by the side of the old, so that now this grand old book, including as it does some of the best treatises that have ever been written on practical gardening, is within the reach of all who love good books and good gardens. For the "Paradisus" is not an illustrated herbal only, wherein it compares favourably with the nearly contemporary well-known

\* "Paradisi in sole Paradisus terrestris." By John Parkinson. Faithfully reprinted from the edition of 1629. Methuen and Co., London, 1904.

herbal of Gerard. It is also a garden book with its own special literary charm. The earlier chapters, under the general heading "The Ordering of the Garden of Pleasure," deal first with the placing of the garden and the nature of soils and their improvement, the second chapter dealing with the actual shaping of the garden: "The frame or forme of a Garden of delight and pleasure, with the several varieties thereof." The third chapter



GOOSEBERRY SAW FLY.  
(Fly, grubs, and cocoon.)

is on edgings: "The many sorts of herbes and other things, wherewith the beds and parts of knots are bordered to set out the forme of them, with their commodities and discommodities." Chapter IV. is on exotic plants: "The nature and names of divers Out-landish flowers, that for their pride, beauty and earliness, are to be planted in Gardens for pleasure and delight." Chapter V. is of more homely garden plants: "The nature and names of those that are called usually English flowers." Chapters VI. and VII. treat of the planting of all these and their times of blooming. Chapter VIII. is dedicated to the Carnation, then called "Gilloflower," a prime favourite of the day, or, as the author says, "the chiefest flowers of account in all our English Gardens." Chapter IX., the last, touches on various horticultural subjects. Then comes the body of the book under the title "The Garden of Pleasant Flowers"; the first page (page 27) remarkably beautiful with its arabesque headpiece and enriched capital. Those who do not already know the book in its older forms will be surprised by the vigour and faithfulness of the bold woodcuts. The whole get-up of the book is excellent; it is printed on a good tough linen-rag paper closely resembling the old, with a type carefully cut in closest reproduction of the original, and a simple binding of unbleached linen back and blue-grey paper sides.

INSECT PESTS.

THE GOOSEBERRY AND CURRANT SAW FLY (NEMATUS RIBESII.)

GOOSEBERRY and Currant bushes suffer more from the attacks of this than of any other insect, and at times the leaves are literally stripped off by their grubs. The saw flies lay their eggs on the under sides of the leaves near the veins as soon as they begin to expand, and the grubs lose no time as soon as they are hatched in beginning to feed on the leaves. They are full grown in about three weeks, then bury themselves in the ground and become chrysalides, from which the second brood of saw flies emerge in about a fortnight, and the second brood of grubs may be found in July. These, in due course, become chrysalides in the soil, but remain in this condition until the spring, when the saw flies are developed. The grubs are often confused with the caterpillars of the magpie moth, but are, however, perfectly distinct, as pointed out in the

note on that insect. The methods of killing both insects are the same while they are feeding, namely, dusting with a mixture of lime and soot when the leaves are wet, or syringing with paraffin emulsion or quassia extract and soft soap. Many may be shaken down and then killed with the back of a spade.

The winter treatment, however, is quite different, for the saw fly grubs, when they are full grown, bury themselves in the soil, and each forms a papery cocoon round itself. Within this it becomes a chrysalis, from which the saw fly emerges in the spring. The best winter treatment, therefore, is to remove the soil to a depth of about 4 inches from under the bushes, and then burn it, or bury it not less than 1 foot below the surface, so that the flies will not be able to reach the open air when they leave the chrysalides. The earth also may be spread about near poultry, which will soon pick out all the cocoons. The saw flies measure about three-quarters of an inch across the wings, their bodies being yellow, with a black patch between the wings. Their heads are black. The grubs when full grown are rather more than three-quarters of an inch in length, of a greenish grey colour, covered with small raised black dots, from which grow fine black hairs; the cocoons are not quite half an inch in length, and are black and papery.

THE MAGPIE MOTH (ABRAXAS GROSSULARIATA).

THE caterpillars of this common moth are very destructive to the foliage of Gooseberry and Currant bushes, and to a certain extent to the flowering Currant, commonly known as Ribes and Euonymus. They are often confused with the grubs of the Gooseberry saw fly, and it is certainly curious that there should be a considerable similarity in their colouring, for both are of a pale colour with black spots. The caterpillars are, however, nearly as large again as the saw fly grubs, their spots are much larger in proportion, and they have only five pairs of legs, while the grubs have ten pairs. When full grown they bury themselves in the earth and become chrysalides, while the caterpillars form their chrysalides on the bushes. It is important to note these differences, as after an attack the winter treatment, to prevent a recurrence of the insects the following season, is quite different. As soon as the young leaves begin to appear in the spring, the caterpillars which have passed the winter in the shelter of crumpled leaves begin their work of destruction, and feed on the young leaves until they are full grown in May or June. Each caterpillar then spins a thin web-like cocoon on the stems or among the leaves, within which they become chrysalides. In the course of about a month the moths make their appearance, and lay their eggs near the midribs of the leaves. The caterpillars are soon hatched, and at once begin to feed on the leaves. They soon, however, spin some of them together, and in this shelter pass the winter or fall to the ground, hiding themselves under the fallen leaves, rubbish, or in some crack in the soil. In the winter all fallen dead leaves and rubbish should be removed from under the bushes and burnt, and any dead leaves which have not fallen with the others should be picked off and destroyed, as they often contain caterpillars. In the spring or summer, when the caterpillars are feeding on the leaves, they may be killed by dusting the bushes with a mixture of lime and soot when the foliage is wet, or spraying with quassia extract and soft soap or paraffin emulsion. These remedies should not be used too late in the season, or they will give the fruit an unpleasant flavour.

The moths fly very slowly, and may easily be caught in a butterfly net. They vary in colour from black to nearly white, and are usually creamy white, with black spots, as shown in the figure. The caterpillars, when full grown, are about 1½ inches in length, and of a pale buff colour with black spots, whilst the chrysalis is black with yellow bands.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

SEEDLING DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—If the advice offered to Mr. Gaunt by "Hortensis" (page 376) for the speedier increase of valuable Daffodils were efficacious it would make matters comfortably easy for all growers. His recipe is simple—viz., to retain every flower of a scarce variety, self-fertilise it, and sow the seed, nothing else being required but waiting. Unfortunately, the experience of nearly a quarter of a century in raising seedlings has shown me (1) that the varieties which can be depended upon to produce seed at all are in a quite small minority, (2) that no garden Narcissus, so far as I know, reproduces itself exactly from seed when self-fertilised.

G. H. ENGLEHEART.

APPLE LANE'S PRINCE ALBERT.

[TO THE EDITOR OF "THE GARDEN."]

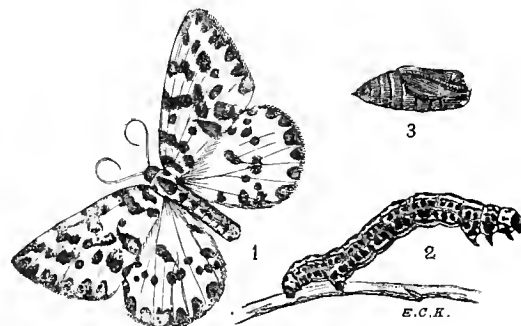
SIR,—I agree with all "A. H. P." says of this Apple (page 369). I know one very successful Apple grower who has a large stock growing as half-standard, a form of training to which it is especially adapted. This Apple is so free bearing that if there are Apples at all, Lane's Prince Albert is sure to have its share. Even when carrying a heavy crop it is surprising to what size the fruit will swell, especially if a little assistance is given in the shape of a mulching of half-decayed stable manure over a sprinkle of some approved fertiliser, such as Thomson's Vine Manure.

E. M.

FRUIT IN BRITAIN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The excellent leader in THE GARDEN of May 28 on "The Outlook for Fruit" gives much food for thought. We had in the past season room for some despondency. Fairest hopes and expectations were fatally cut down in a single week, and nothing could be done but to make the best of it and prepare as well as might be for another year. To-day, having now surely, as we may believe, passed the critical period, once more we are rejoicing in hope. But you have wisely sounded a warning note. It may seem to be the irony of fate, but from the earliest times too much has always been as much or even more of a curse than too little. I do not pretend to any great technical knowledge or experience, but, looking at the matter from an outsider's point of view, the question arises in one's mind; Why should a glut of fruit ever be permitted? Is there—I ask simply for information—any insurmountable difficulty in the way of thinning out crops of outdoor orchard



MAGPIE MOTH.

(1. Moth. 2. Caterpillar. 3. Chrysalis.)

fruit? Over and over again I have asked this question, and the answer has always been the same—Impossible. Now, impossible is a word which may be spelt with very different letters. There may be difficulties which for the present seem hard

to overcome: yet surely time and ingenuity, and, above all, a determined will, find a way out of most troubles.

Fifty years ago or thereabouts gloom overspread the Vine-growing districts of the world. The deadly scourge of phylloxera which had appeared, but had not before made itself dreaded, suddenly assumed portentous proportions and threatened the extinction of the Grape crops. Did the growers sit down and wail and wring their hands and leave the Vines to chance? The vineyards of the world to-day are the best answer to that futile question.

Why should not Apples and Pears be thinned with as much attention as bunches of Grapes under glass are thinned? As a matter of fact, in some Vine-growing countries certain portions of the vineyards are set apart and the bunches regularly thinned for the production of table fruit, which, of course, fetches a much higher price than that intended for the wine-press.

I should like to put on record a case in point which has happened this very last season. Some extensive orchards in Cape Colony early in the year showed promise of an extra heavy crop, so heavy, indeed, that it was suggested that thinning would be labour well spent; advice which was not listened to, on account of hands being none too plentiful. Nature, however, took the matter into her own keeping. About midway towards ripening a sudden storm of wind blew down literally tons of Apples and Pears, and the wreck seemed almost irreparable. But what has been the outcome of the apparent disaster? The yield of splendid fruit of all kinds has been unexampled, so that the season of 1904 has been a record one, both on account of output and quality. Apples and Pears weighing from 2lb. to 3lb. each have been the average, whilst much of the fruit has reached even a greater weight. Such an occurrence points its own lesson.

We may not be able in England to grow such fine samples of fruit. Perhaps it is not altogether desirable that we should; but we can produce at home as good and well-flavoured Apples and Pears as need be wished for, and judicious thinning, as we all know, is one most essential point of culture in obtaining them. Cherries and Plums present greater difficulties, possibly, in the way of thinning than Apples and Pears; but even with these the work is not beyond the bounds of possibility. We gather green Gooseberries, leaving sufficient to ripen for the mature crop, and so make profitable use of what are practically thinnings. Where extensive Nut coppices exist the young bunches used formerly to be thinned out—and may be still—for the good of the future crop, and were saleable for the dye which could be extracted from the green "hulls." There is no waste in Nature, and probably some economic use other than for the pig-tub might be found for green Apples and smaller unripe fruit. In any case, it is a question which may be worth asking once again of practical men, whether it is altogether impossible to thin out the superabundant settings of fruit on orchard trees, so as to ensure, as far as may be, a sufficient, yet not over abundant, market crop of even size and good quality?

The other point raised in your admirable article—of the convenient and quick distribution of perishable fruit crops at reasonable rates—is brought forward none too soon. Many and deep are the growls which we utter against the railway companies; but it is always their fault that small lots of perishable goods, involving much additional expense and trouble, are charged at prohibitive rates? The lack of co-operative organisation is at the bottom of a good deal of the injustice to home producers which is so often the theme of bitter complaints. The Englishman is not a gregarious animal; he prefers keeping himself to himself, and brooks no interference. Foreigners are sociable by nature and have no objection to combine, and so in many ways they get on more successfully than we do. For example, they collect their marketable produce from many contributors and send it in bulk to our shores, which enables our railway companies to transmit their goods at the lower rate, which gives so much offence to their British customers. In time we shall doubtless do the same as our neighbours across the silver streak; but how slow we are to learn!

Forewarned is forearmed. Is it impossible, with a prospective season of glut ahead, to see to it in time, so far as human foresight and energy can, that our Apples and Pears do not crowd themselves in miserable clusters of four or six together where there should be but one perfect fruit? And is it beyond the power of British capacity, in these days of motor conveyance, to contrive some plan of distributing produce to provincial and rural centres where fruit would find ready buyers at remunerative, if not fancy, prices, instead of flooding the big markets with an overstock of perishable goods? A glut in the market should be unknown in our midst, for surely it is a disgrace to the intelligence and the business capacity of men who profess to make their living by the produce of the land; whilst we need say nothing of the ingratitude which it proves, by wasteful want of care and forethought, towards the beneficent Providence that has granted an abundant and fruitful harvest. INDUSTRIA.

## ORCHIDS.

### NOTES ON ORCHIDS.

THE *Dictionnaire Iconographique des Orchidées* for May contains coloured plates of the following:—

*Stauropsis fasciata*.—A rare species, introduced in 1872, from where it is not exactly known. It is known to grow in Siam, and is cultivated at Singapore. Sepals and petals marone-brown, marked with transverse bands of pale yellow, lip white.

*Oncidium superbium*.—Native of New Grenada, where it grows at an altitude of 2,700 feet to 3,000 feet. First discovered by Purdie about 1843. Messrs. Veitch introduced this Orchid in 1871, and it flowered with them the following year for the first time.

*Lelio-Cattleya digbyano-Mossie var. splendens*.—In this variety the sepals are bright rose-purple, with deeper coloured lines; the large, handsome lip is yellow or greenish yellow, faintly tinged with red, and has a border of rose-purple. M. Peeters of Brussels raised this variety.

*Dendrobium Celogyne*.—This curious species, very different in appearance from all the other *Dendrobiums* generally grown, grows wild in the neighbourhood of Moulmein. It was introduced to Europe about 1871, but appears still to be very rare in cultivation. Messrs. Hugh Low and Co. exhibited it in London in 1894 and again in 1899, when an award of merit was given to it. The long, narrow, pointed sepals are yellowish green, and covered with violet-purple spots; the petals are of the same colour and almost of the same form, but rather shorter and narrower. The three-lobed lip is shorter than the sepals, deep violet purple.

*Cypripedium Memoria Fournieri*.—A very attractive flower, the result of a cross between *C. Exul* and *C. Boxalli* and intermediate between the two parents. The dorsal sepal is heavily marked with violet-purple upon a ground colour of green in the centre and white near the margin.

*Cattleya F. W. Wigan*.—A hybrid, obtained at Clare Lawn, East Sheen, between *C. schilleriana* and *C. dowiana aurea*, that bears a great resemblance to *C. Whitei*, whose parents are *C. schilleriana* and *C. Warneri*, the latter itself closely related to *C. dowiana*.

*Cattleya Rembrandt*.—A hybrid raised by M. Ch. Maron, Brunoy, between *C. labiata* and *C. elongata*. This hybrid has several characters intermediate—plainly intermediate—between the two parents, but it nevertheless much resembles *C. elongata*.

*Cattleya pittiana*.—A hybrid between *C. dowiana aurea* and *C. granulosa schofieldiana*, raised in the collection of Mr. H. T. Pitt, Stamford Hill, N., where it flowered for the first time in 1902. The flowers are very curious; they resemble *C. granulosa* in general form, shape of the lip, and largely in the tint of sepals and petals; but they are as large as those of *C. dowiana*, whose influence is also seen in the form of petals, the size and bright colouring of the lip.

*Cattleya Peetersii*.—*C. hardyana* and *C. labiata* are the parents of this hybrid, which flowered for the first time in 1902. In general form the flowers resemble those of *C. hardyana*, but their colour more recalls *C. labiata*. Raised by M. A. A. Peeters.

*Cattleya Imperator*.—This *Cattleya*, considered to be a natural hybrid between *C. labiata* and *C. granulosa*, was introduced in 1896 from Brazil. There is a certain resemblance to *C. Victoria Regina*, but the flowers are much larger and of brighter colouring.

*Cattleya Fabia var. rigeriana*.—*C. Fabia*, a hybrid between *C. labiata* and *C. dowiana*, was raised by Messrs. Veitch of Chelsea, and shown by them in 1894. The variety *vigeriana* is the result of an inverse cross, *C. dowiana aurea* × *C. labiata flammæa*.

*Cattleya Enid*.—Also a hybrid obtained by Messrs. Veitch between *C. Mossie* and *C. Warscewiczii*, showing well the characters of both parents.

*Cattleya Cogniauxii*.—M. Peeters of Brussels obtained this hybrid by crossing *C. guttata* with *C. labiata Peetersii*. It partakes more or less of the characters of both parents, though partaking more of *C. labiata*.

### WORK FOR THE WEEK.

#### BULBOPHYLLUM BARBIGERUM.

This quaint and fascinating Orchid, now passing out of flower, should be given a short rest by giving much less water. When the new growth starts away the supply must be gradually increased. The position afforded should be extremely hot and moist, such an one as a well-made propagating house would give, where it would also have the benefit derived from heavy shade during the bright part of the year. Potting is best done just when the new growths are visible in a compost of equal parts of fibrous peat and sphagnum, non-perforated shallow pans being the most suitable receptacles for them. Fill them half full with chopped rhizomes. I do not repot unless the compost is sour, but the surface material should be annually removed and fresh substituted for the new roots to take hold of. When the new growth is completed reduce the supply of water, simply giving enough to maintain the plants from shrivelling, and this course should be followed till the flower-spike is visible.

#### BULBOPHYLLUM LOBELI.

This is also worth room in every collection, and, being a much better flowerer, is more often met with. The necessary potting may be performed when the flowering season is over. The new growths are often produced at the same time as the flowers. Plants that have overgrown their pans should have the leading parts taken away and potted up separately. The back portion of the plant will soon produce new leads if left undisturbed, and the stock is thereby increased and kept young. The same compost is suitable, but the receptacles should be large enough to allow of two years' growth. The best plants are those made up of several good leads.

#### ONCIDIUM PAPILLO AND O. KRAMERIANUM.

These two beautiful Orchids are now starting into growth, and those that require repotting should be taken in hand. If this is not needed resurfacing will prove very beneficial, using the same compost as used for the *Bulbophyllum*. The hottest and shadiest position in the stove Orchid house meets their requirements. Freely syringe them during the growing season. All spikes on weakly plants should be removed as soon as they are visible.

#### WOODLICE.

These are among the most difficult insects to eradicate once they have obtained a hold. At this season, when so many Orchids are emitting new roots, they do great damage, consequently the new growths do not obtain the support they should have had, and a weaker and smaller growth is the result. Hollowed out Potatoes are good traps, looking over them the last thing at night and first thing in the morning. We have also found West's Woodlice

Poison a great help in keeping them down. When a plant is known to be full of them the best and safest cure is to immerse it gradually in a vessel of tepid water. This will drive them out, when they can be easily caught.

W. P. BOUND.

Gasston Park Gardens, Reigate.

## NOTES FROM THE MARKETS.

**SWEET PEAS.**—Many growers now have these under glass, and they are quite abundant. Some of the best bright colours and the best whites sell well, but those of undecided shades are less sought for; the cost of seed is not very great for the best new varieties, and it would pay all growers to note the most useful and grow only the finest. Among the whites Dorothy Eckford is decidedly the best, but Sadie Barpee is also very good and one of the most free flowering. Scarlet Gem is a great advance on all other scarlets. Coccinea is good and comes very early. In mauve, which is still a favourite colour, there seems nothing better than Lady Grisel Hamilton. Under glass this is excellent. Dorothy Tennant is a little deeper in colour. Miss Willmott is by far the finest deep pink, and Prima Donna blush pink of a pretty shade.

*Ivy-leaved Pelargonium for cut bloom.*—The pink Ivy-leaved Geranium is now more used than formerly, and one grower, Mr. Fisher, is sending in a very pretty mauve variety which sells readily. Mr. Fisher holds the entire stock of this, which is of his own raising, and he grows it extensively for cut bloom only.

*Pelargonium (show) Eucharis*, a pure white with just a faint pink on the upper petals, is a fine variety for cutting, as it makes long flower-stems. Growers who have tried it all speak in its favour.

*Pyrethrums.*—There is now a very large supply coming in; the single crimson and the pink are very good. These sell much better than the double varieties.

*Marguerite Coronation.*—Some growers are doing well with this, but it will never quite take the place of the old favourite. It is rather inclined to run up thin, and after a little shaking about the flowers do not stand up well, but it should be worth growing for cutting. The flowers are of the purest white, and the gilded florets in the centre do away with the yellow disc. The ordinary white Marguerites are as much appreciated as ever, and it is surprising what quantities go through the market. The young, clean-grown plants sell readily for window-boxes, and the larger bushy, well-flowered plants are used extensively for decorations.

A. HEMSLEY.

## SOCIETIES.

### ROYAL BOTANIC SOCIETY.

IN fine weather and amid delightful surroundings the grand horticultural exhibition organised by the Royal Botanic Society was held from June 6 to 11 in the grounds of the society, Regent's Park. Numerous special tents had been erected, and these contained groups of plants, flowers, and fruits very similar to those exhibited at the Temple show. The large conservatory also contained many displays of plants and flowers, while the corridor was devoted to Nature study exhibits and other objects of an educational nature. Out of doors groups of trees and shrubs were arranged, as well as exhibits of garden vases, greenhouses, lawn mowers, and other useful appliances. Several tents were filled with miscellaneous objects, such as boilers, heating apparatus, horticultural sundries, &c. The display of Rhododendrons by Messrs. John Waterer and Son, Limited, Bagshot (described elsewhere), formed one of the most attractive features of the exhibition.

On Saturday evening last Mr. C. Brinsley-Marlay presided at a dinner held in the club rooms. He was supported by Lord Redesdale, Sir Henry Truman Wood, Sir John Cockburn, and members of the exhibition committee. Altogether about fifty persons were present. Mr. Brinsley-Marlay said that the Royal Botanic Society intended to provide what was apparently unobtainable elsewhere, i.e., a general horticultural exhibition, at which everything that was of value in the garden might be gathered together. Lord Redesdale, in proposing the toast of "Success to the Exhibition and the Royal Botanic Society," said that to make the exhibition a success only fine weather and a good

attendance were necessary. As to the Royal Botanic Society, said Lord Redesdale, it was already a success; it possessed advantages such as no other society in the world at present had. It seemed to him that the present policy of the society should be continued.

### PLANTS AND FLOWERS.

Messrs. Richard Smith and Co., Worcester, exhibited a fine display of trained Clematis specimens. All were finely flowered, and made a brave show. Rose Crimson Rambler, Acers, and Eremuri added to the attractiveness of this group. Polypodium smithianum (new) and Clematis Enid (new), pale pink, with deeper pink veining, were included.

Messrs. T. Rivers and Son, Sawbridgeworth, exhibited a large group of fruit trees in pots, Peaches, Plums, and Nectarines chiefly. All were carrying excellent crops of fruit, but especially fine were Nectarines Cardinal and Early Rivers, Peaches Early York and Peregrine, and Plums Curlew and Golden Transparent Gage.

Messrs. William Paul and Son, Waltham Cross, Herts, had a delightful group of Roses in pots. They filled the central half of one tent, and proved a great attraction. Among them Waltham Rambler, Dorothy Perkins, and Crimson Rambler were very pretty, as well as a large number of Teas, Hybrid Teas, and Hybrid Perpetuals. Boadicea, Prince de Bulgarie, and Pharisæer were very beautiful among many others equally so.

Mr. Maurice Prichard, Christchurch, Hants, showed handsome bunches of Pyrethrums, Poppies, Irises, and other showy flowers.

Messrs. J. Laing and Sons, Forest Hill, S.E., exhibited a group of tuberous Begonias in many beautiful colours. Singles, doubles, and other forms were shown. Gloxinias and Streptocarpuses bordered the ends of the group.

Messrs. Hugh Low and Co., Enfield, N., exhibited a showy group of Orchids, composed chiefly of Cattleya Mossiae, Lælia purpurata, Odontoglossum crispum, and Dendrobium Bensoniae. Cattleya Mossiae Wagnerii, with white sepals and petals, bearing four flowers, was included.

Messrs. William Cutbush and Son, Highgate, N., showed a handsome group effectively arranged of Malmaison Carnations, blue Hydrangeas, Tree Carnations, yellow Callas, Lillium Henryi, &c. Messrs. Cutbush also showed Eremuri, Lilliums, Trollius, Pyrethrums, and other hardy flowers in variety.

Messrs. Barr and Sons, King Street, Covent Garden, exhibited a beautiful lot of hardy flowers that included Irises, Pyrethrums, Poppies, Lilliums, Heucheras, Delphiniums, hardy Orchids, Peonies, Gladioli, and many more, making a most effective display.

Mr. Amos Perry, Winchmore Hill, N., made a brilliant display with hardy flowers, such as Poppies, Pyrethrums, Irises, Saxifrages, Water Lilies, Peonies, Geums, and many other things—wonderful banks of colour.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, showed some beautiful tuberous Begonias, the doubles being especially fine.

Among the Roses from Mr. George Prince, Longworth, Berks, were Red Copper Briar and Single Yellow Briar, both very beautiful, Paul's Carmine Pillar, Marie van Houtte, Bardou Job, as well as many single blooms of Teas and Hybrid Teas.

Messrs. Watkins and Simpson, Tavistock Street, Covent Garden, W.C., had a very pretty group of hardy annual flowers in great variety.

Messrs. Dobbie and Co., Rothesay, N.E., showed a delightful lot of Aquilegias in many beautiful shades of colour, and showing well the great improvement in these flowers.

Messrs. John Peed and Son, West Norwood, S.E., showed blooms of Gloxinias and Streptocarpuses in rich colours. The Caladiums from this firm made an imposing exhibit, filling the end of one tent. The plants were well grown and boldly arranged, and many of the varieties were finely coloured. Messrs. Peed also showed a small group of tuberous Begonias.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a large group of Malmaison Carnations in numerous varieties, as well as Agapanthus umbellatus variegatus, Heaths, &c. Messrs. Low also exhibited Fig trees and Vines in pots.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, exhibited Cucumbers, Tomatoes, and Melons in several different varieties. Seed-bearing fruits of Cucumbers Progress and Improved Telegraph were included. Among the Tomatoes, Perfection, Winter Beauty, and Lister's Prolific were of attractive appearance and useful size.

Mr. W. J. Godfrey, Exmouth, Devon, exhibited a group of Oriental Poppies in several sorts. The same exhibitor made a bright show with fancy and zonal Pelargoniums in numerous pretty varieties.

Mr. George Reuthe, Keston, Kent, showed a group of hardy plants, among which we noticed Saracenia flava, S. californica, Pyrethrums, Irises, Orchises, Linnarias, &c.

A dinner table decorated with pink Malmaison and other Carnations by Messrs. Searcy, Tinsley and Co., Limited, 18, Sloane Street, was much admired.

Hardy flowers from Messrs. T. S. Ware, Limited, Feltham, made a good display, such as Irises, Poppies, Peonies, Eremuri, and many more being represented.

Messrs. James Carter and Co., High Holborn, exhibited Spiræa compacta multiflora, Verbenas, Gloxinias, Mignonne, and other popular garden flowers.

Messrs. H. Cannell and Sons, Swanley, Kent, set up a group of Cacti in many curious and interesting forms.

Messrs. W. and J. Brown, Stamford, Peterborough, showed a miscellaneous group of flowering plants, such as Carnations, Heliotrope, Pelargoniums, &c.

Specimens of New South Wales timber, wines, and fruits were exhibited by the New South Wales Government, 33 and 35, Eastcheap, E.C.

A collection of bottled fruits, agricultural products, wines, &c., was also exhibited by the Department of Agriculture, Victoria, Australia.

A collection of West Indian fruits, that comprised Pine-apples, Grape Fruits, Lemons, Oranges, Mangoes, Prickly

Pears, Limes, Yams, and Sapodillas, was exhibited by the West Indian section of the Royal Mail Steam Packet Company.

Apples from South Australia included the varieties Cleopatra, Rome Beauty, and Dunn's Seedling, the first mentioned being a very handsome pale yellow fruit, with bluish tinge. South Australian wines were also exhibited.

Messrs. J. Cheal and Sons, Crawley, exhibited a rocky planted with alpine, and also groups of hardy flowers, such as Peonies, Poppies, Lilliums, Lychnis, Irises, &c.

Messrs. Pollard Brothers, Wantage Road Nursery, Lee, S.E., showed bedding Pelargoniums.

### MISCELLANEOUS.

Garden vases were shown by Messrs. Liberty and Co., Regent Street, in many quaint and attractive forms.

Messrs. Charles P. Kinnell and Co., Southwark Street, S.E., showed boilers, piping, valves, grating, hose, and other details of horticultural engineering.

Messrs. Champion and Co., 115, City Road, E.C., showed their well known tubs for shrubs. These tubs are handsomely finished, and make ideal receptacles for large plants.

Messrs. J. T. Anderson and Son, Limited, Commercial Street, E.C., showed various horticultural sundries, such as pruning knives, scissors, gloves, silver sand, stakes, labels, raffia, &c.

The Pattison Patent Lawn Boats were shown by Mr. H. Pattison, 1, Farm Avenue, Streatham, S.W.

Fenlon's Patent Gas and Oil Boilers for conservatories, &c., were shown by Messrs. Fenlon and Co., Tudor Street, Whitefriars, E.C. Fenlon's "Unique" Radiator, with gas or oil as fuel, will heat a room 12 feet square with only one burner. It requires no flue and is odorless.

Messrs. Corry and Co., Limited, Shad Thames, S.E., exhibited a display of various horticultural and agricultural sundries, such as lawn sand, "Niquas" for destroying insect pests, artificial manures, vaporisers, &c.

Messrs. Tomlinson and Hayward, Limited, Lincoln, exhibited "Eureka" Weed Killer, "Eureka" Insecticide, summer shade, &c.

Messrs. James Keith and Blackman, Limited, 27, Farringdon Avenue, showed their Patent "E" Type Boiler. This type of boiler, with cleaning doors, and arranged with steel drum or dome on top, and return circulating pipe, forms an excellent small steam boiler for low pressure, with the water and steam line away from all cast iron work.

Junofloris, a preparation for preserving cut flowers in water, was shown by Junofloris Department, 95 and 96, High Holborn, W.C.

Mr. Richard Anker, Addison Road Nursery, Napier Road, Kensington, exhibited Cacti in small lots.

Wrought welded boilers for heating apparatus were shown by Messrs. Hartley and Sugden, Halifax.

Original Counter-current Sectional Boilers for greenhouses were shown by Messrs. White, Child, and Beney, Limited, 62 and 63, Queen Street, Cheapside, E.C.

Messrs. Messenger and Co., Limited, Loughborough, showed boilers and iron and glass plant protectors.

Mr. John Pinches, 3, Crown Buildings, Crown Street, Camberwell, S.E., showed labels, Acme Bloom Protector, horticultural wire work, &c.

Messrs. Green and Son, Southwark Street, S.E., exhibited lawn mowers of various sorts. Green's Patent "Silens Messor" Lawn Mowers, with improved solid link steel chains, are well known and widely used. These machines can have provision made for working them either with or without the front rollers, and also for having a loose cylinder cover fitted on, which would permit the grass to be delivered behind the machine when it is wanted to work without the grass box. The "Silens Messor" mowers possess the advantage of being self sharpening. The cutters are steel on each side; when they become dull or blunt by running one way round the cylinder can be reversed again and again, thus bringing the unused edge against the bottom blade. The machine will then cut equal to new.

Shanks' Patent Lawn Mowers were exhibited by Messrs. Alex. Shanks and Sons, Limited, Bush Lane House, Cannon Street, E.C. One of the features of Shanks' Lawn Mowers consists in their being fitted with steel axle springs, thus affording great ease to the gardener in working the machine, as well as a valuable protection to the machine itself. These springs, which are protected by patent and are peculiar to Shanks' mowers, have formed one of the most valuable improvements ever introduced to the lawn mower.

Stubb's Fuel Economisers were shown by the Efficient Lighting and Heating Company, 22, York Place, Portman Square, W. The economisers are made in two forms, viz., a waterway tray and a waterway tube. The tray can be fixed on any existing horizontal boiler, and the tube can be used wherever there is a space of 5 feet and upwards between the end of the boiler and the chimney flue. Users of hot-water boilers have long been aware of the great loss of heat which takes place under existing conditions. No matter how efficient the boiler may be, so long as it is covered by a brick arch there is a loss exceeding 25 per cent. of the heat generated by the fuel. This great waste can now be avoided by fixing on the top of the boiler the waterway tray in place of the brick arch, and then covering the tray with non-conducting material. But even after this is done some of the heat will escape up the chimney, and to save this a tube should be fixed in all cases where there is room, and then by dampering at the end of this tube, instead of 3 feet or 4 feet up the chimney flue, practically the whole of the heat generated is put to its intended purpose, that is, heating water.

Messrs. Wallace Brothers, 57, Gracechurch Street, E.C., showed the "Evertrusty" Star Machines for painting, lime washing, spraying, &c. These machines are the outcome of many years experience, and thorough and practical knowledge of every phase of the subject has been brought to bear upon their construction. By their use a general clean up can be accomplished, not only in far less time, but also much more thoroughly and satisfactorily, as all recesses, crevices, and obscure corners are reached, which is impossible with a brush. The machines are made by the aid of every modern

facility, under the most competent supervision, whereby cost of manufacture is minimised, and machines, thoroughly reliable and first class in every way, are turned out.

The Four Oaks Nursery and Garden Sundries Company, Sutton Coldfield, Birmingham, exhibited their tree pruners in various sizes, saws, bill hooks, &c., also the Erator Patent Rotary Manual Cultivator, recommended as a substitute for the hoe. The Undentable Syringes made by this firm were also shown. These syringes have received the approval of many eminent practical gardeners. They are very handsome in appearance, and special attention has been given to all details of construction and finish. They are guaranteed against any damage by indentation of the working barrel for a period of three years, and will wear many years longer than any syringe of ordinary construction. It is a well-known fact that even the best quality of syringe is irretrievably ruined by the slightest indentation of the barrel, and this contingency is effectually guarded against in the Four Oaks Undentable Syringes.

Mr. John Pinches, 3, Crown Buildings, Crown Street, Camberwell, S.E., showed the Acme Bloom Protector for protecting blooms of Roses, &c., as well as a quantity of labels in many forms.

Mr. J. Brice Bell, Porchester Road, Bonnrnemouth, exhibited Anti Halyca Powder, said to insure immunity against the Turnip fly, and to be a sure preventive against attacks of wireworm.

Messrs. Messenger and Co., Loughborough, had on view specimens of boilers, notably the "Quorn." These boilers are made in sections, and are therefore easily handled, and being made of cast iron are not liable to corrode like wrought iron boilers. They are also very economical in the consumption of fuel. To obtain the best results they recommend that the boiler be covered with a non-conducting material, and Messrs. Messenger supply a special composition for the purpose.

Bruce's Adjustable Flower Holders were shown by Mr. A. Hensley, 23, Knowles Hill Crescent, Lewisham, S.E. The flower-stems are placed through the two perforations in any position required, and if any short-stemmed flowers are required for the centre the desired effect is obtained by heightening or lowering the water tube attached to wire rod.

The Acme Chemical Company, Limited, Tonbridge, Kent, showed specimens of the "Acme" Weed Killer, also zinc labels in variety.

Beetlicute, said to be an infallible beetle, cockroach, and ant exterminator, was shown by Messrs. Valls and Co., 16, Coleman Street, E.C.

The Rosmarine Manufacturing Company, London, S.E., exhibited "Petal Dust," a floral disinfectant and a safeguard against the ravages of moths.

Price's Patent Candle Company, Limited, showed Gishurst Compound for preventing and destroying red spider, thrip, mealy bug, &c. Also Gishurstine and other preparations.

Mr. J. Williams, Oxford Road, Ealing, W., showed the Rural Flower Supporter for placing in glass or metal bowls.

Among the exhibits from Messrs. Merryweather and Sons, Long Acre, W.C., were the "Greenwich Gem" Double Cylinder Steam Fire Engine, of a capacity of 300 gallons per minute, for the protection of the show against fire; "Valiant" Light Portable Steam Pumping and Fire Engine, for country estates; New Patent Portable "Waterspout" Centrifugal Pump, driven by petrol motor, for drainage and irrigation; New Patent Rotary Lift and Force Pump, driven by petrol motor, for watering, spraying, filling tanks, &c.; New Patent Portable "Hatfield" High Speed Pump, driven by petrol motor, for fire extinction, watering, and country house water supply; Improved "India" Pump, for raising and forcing water by hand-power; working model of improved windmill, driving a pump to lift water from a well or stream, for estate use; "Universal," "Barrow," and "Tripod" Pumps, for water, sewage, liquid manure, &c.; New Patent Steam Hop Washing and Fruit Spraying Plant, including a light portable steam engine and boiler with movable piping, sprays, &c., shown in action; Patent Rotary Augmentor, for improving low pressure water supply in country houses; working model of hydraulic ram for water supply; and a selection of hand-pumps, hose-pipes, jets, sprays, and other garden watering apparatus.

Messrs. W. J. Bruce and Co., art publishers, 35, Surrey Street, Strand (agents for J. L. Goffart, Brussels), had some admirable coloured reproductions on view. The subjects were various; there were landscapes, portraits, and flower studies, the latter predominating and very beautiful.

In the educational section there were many exhibits from different schools of sketches (many coloured) of wild flowers, birds, and insects, as well as dried specimens of wild flowers, together with botanical descriptions.

Mr. Henry Irving, The Rowans, Horley, Surrey, exhibited some excellent photographs (20 inches by 16 inches) of trees, showing the same specimen in winter and summer. He also had photographs of tree-trunks, showing well the different sorts of bark.

#### EXHIBITS OUT OF DOORS.

Messrs. Barr and Sons, King Street, Covent Garden, W.C., had a most interesting exhibit of pigmy trees in a special tent. Some of these miniature plants were 150 years old, yet not more than 2 feet or 3 feet high; several Pines twenty-five years old were about 9 inches high. Acers, Oaks, Thujas, Yews, &c., were represented.

Messrs. John Laing and Sons, Forest Hill, S.E., exhibited a group of ornamental trees and shrubs arranged out of doors. Such things were included as Acers in variety, Frises, Prunus Pissardi, Oaks, Cupressus lawsoniana argentea, Wistaria, Purple Beech, Rose Crimson Rambler, &c., Variegated Euonymus and Enrya made an attractive margin.

Messrs. Richard Smith and Co., Worcester, exhibited a group of hardy shrubs that consisted largely of conifers and Japanese Maples.

Mr. John Unite, 291 and 293, Edgware Road, W., exhibited various kinds of garden tents and canopies, &c. The "Unite" Square Tent is of splendid quality. It is without a central pole, has wood framework, and is waterproof. Many sizes and forms of tents were displayed.

Mr. C. W. Riley, Herne Hill, S.E., showed an admirable lot of garden summer houses, tennis houses, garden seats, chairs, &c., all in rustic woodwork, and just the thing for the garden.

Messrs. Skinner, Board, and Co., Bristol, exhibited a greenhouse showing their patent wire tension system of structure. The chief features of this method are curved iron framed roof, ordinary flat glass, no putty, no drip, and glazed and repaired from inside. They are imperishable and portable, and a great saving in maintenance is effected by their use.

Messrs. James Crispin and Sons, Bristol, exhibited garden frames, hand lights, and a very handsome square greenhouse or conservatory, with lantern roof. Messrs. Crispin also exhibited radiators, largely in use for heating halls, corridors, &c.

Messrs. Pearce and Co., Holloway Road, N., showed a well-made greenhouse very suitable for amateurs. They also showed garden frames, rustic arches, garden seats, &c.

Messrs. Pulham and son, 71, Newmarket Street, Oxford Street, W., exhibited garden ornaments, such as vases, sundials, pillars, &c., in Pulhamite stone, a material that is most durable and suitable for the purpose. Messrs. Pulham also arranged a rockery constructed with Pulhamite stone, and planted with alpinines from their nursery at Elsenham, Essex.

Mr. W. Duncan Tucker, South Tottenham, exhibited greenhouses and garden frames, all of which showed the splendid work done by this firm.

The "Duro" Garden Sticks and Stakes in Ash were shown by the Duro Ash Garden Stake Company, Tower Mills, Berkhamstead. They are said to be unrivalled in durability and strength. They may be had in various sizes.

#### AWARDS.

*Special large gold medal.*—Messrs. John Waterer and Sons, for Rhododendrons.

*Gold medals.*—Messrs. William Paul and Sons, Waltham Cross, for Roses in pots; Messrs. Hugh Low and Co., Enfield, for Orchids, Carnations, &c.; Messrs. Thomas Rivers and Son, Sawbridgeworth, for fruit trees in pots; Messrs. John Laing and Sons, Forest Hill, S.E., for Begonias and choice hardy plants; Messrs. William Cutbush and Son, for Carnations, herbaceous and other plants; Searcy Tansley and Co., 18, Sloane Street, W., for decorated dinner table; Messrs. Doulton and Co., Limited, Lambeth, for terra-cotta and Doulton vase; Messrs. Ransomes, Sims, and Jefferies, Limited, Ipswich, for motor and other lawn mowers; Messrs. Liberty and Co., Regent Street, for pottery ware; Messrs. Merryweather and Sons, Limited, Hatfield (Greenwich Road, S.E.), for spraying and pumping and other machines; Mr. J. W. Riley, Herne Hill, S.E., for rustic summer houses, arches, vases, &c.; Mr. W. Duncan Tucker, South Tottenham, N., for conservatory, greenhouses, &c.; and Messrs. Charles P. Kinnell and Co., Southwark Street, for boilers and other heating apparatus.

*Large silver-gilt medals.*—Messrs. John Peed and Son, West Norwood, for Caladiums and Begonias; Messrs. Thomas Green and Son, Limited, Southwark Street, for motor and other lawn mowers, &c.; Mr. Amos Perry, Winchmore Hill, N., for hardy perennials, cut flowers, &c.; Messrs. Messenger and Co., Limited, Loughborough, for boilers, &c.; Messrs. Barr and Sons, King Street, Covent Garden, W.C., for herbaceous plants and pigmy trees; and Messrs. Pulham and Son, Newman Street, for rock work, vases, and sundials.

*Silver-gilt medals.*—Messrs. Blackmore and Langdon, for tuberous Begonias; Mr. S. Mortimer, Farnham, for Cucumbers and Tomatoes; Messrs. Richard Smith and Co., Worcester, for Clematis and hardy shrubs; Messrs. H. Cannell and Sons, Swanley, for Cacti; Mr. W. J. Godfrey, Exmouth, Devon, for new Pelargoniums and Poppies; Mr. G. Reuthe, Keston, Kent, for herbaceous and alpine plants; and Messrs. James Crispin and Sons, Bristol, for conservatory and frames.

*Large silver medals.*—Mr. Maurice Pritchard, Christchurch, Hants, for herbaceous plants; Messrs. T. S. Ware, Limited, Feltham, for alpinines and herbaceous plants; Messrs. J. Carter and Co., High Holborn, for Spiraeas, Gloxinias, Verbenas, &c.; Mr. John Unite, Edgware Road, for tents and garden furniture; Messrs. Alex. Shanks and Son, Limited, Arbroath, for

lawn mowers; Messrs. White, Child, and Boney, Queen Street, E.C., for boilers; and Mr. James Williams, Ealing, for house and table decorations.

*Silver medals.*—Messrs. Dobbie and Co., Rothesay, for Aquilegias; Messrs. W. and J. Brown, Stamford and Peterborough, for Verbenas and new Cactus Geraniums; Messrs. Watkins and Simpson, Tavistock Street, for hardy annuals in pots; Mr. George Prince, Longworth, Berks, for cut Roses; Messrs. Pearce and Co., Holloway, for greenhouse and frames; Messrs. Skinner, Board, and Co., Bristol, for wire tensi greenhouse; Messrs. Hartley and Sugden, Halifax, for boilers; Mr. John Pinches, Camberwell, for horticultural labels; The Four Oaks Nursery Company, for garden specialities; Messrs. Champion and Co., for Oak and Teak tubs; Messrs. Corry and Co., for insecticides, &c.; Messrs. James Keith and Blackman, Limited, Farringdon Avenue, E.C., for greenhouse boilers; Messrs. Wallace Brothers, Gracechurch Street, for spraying, white-washing, and lime-washing machines; Messrs. James T. Anderson and Sons, Limited, Commercial Street, E.C., for raffia, mats, &c.; and Messrs. Fenlon, Tudor Street, E.C., for gas-heating apparatus for amateurs.

*Bronze medals.*—Messrs. Pollard Brothers, Lee, for new zonal Pelargoniums; Mr. H. Pattison, Streatham, for lawn boots; and Mr. R. Anker, Napier Road, Kensington, for Cacti.

*First-class certificates* to Rhododendron F. Gomer Waterer, from Messrs. John Waterer; Sarracenia flava major, from Messrs. T. S. Ware, Limited; and Rose Waltham Rambler, from Messrs. William Paul and Son.

*Awards of merit* to Rose Pharasær, from Messrs. William Paul and Son; and to Iris Lorteti, from Mr. G. Reuthe.

*Botanical certificate* to Lentestemon Watsoni, from Messrs. T. S. Ware, Limited.

*Certificates of merit.*—Price's Patent Candle Company, for Gishurst Compound; Messrs. Tomkinson and Hayward, Limited, Lincoln, for "Eureka" Weed Killer; and The Acme Chemical Company, Limited, Tonbridge, for "Acme" preparations.

*Votes of thanks.*—Messrs. Valls and Co., Coleman Street, for Beetlicute; the Efficient Lighting and Heating Company, Park Road, N.W., for Stubbs' Patent Boiler; Messrs. Morton and Co., Liverpool, for conservatory lamps and torches; for "Junofloris," High Holborn; and to Mr. A. Hensley, for Sweet Peas in Bruce's Patent Displays.

#### COLONIAL SECTION.

*Large silver-gilt medal.*—The Agent-General for Victoria, for produce from the State of Victoria.

*Large silver medals.*—The Agent-General for South



ROSE MAMAN COCHET. (Exhibited at the Temple Show.)

Australia, for produce from South Australia; the West India Committee, for tropical fruit shown by the Royal Mail Steam Packet Company; the Commercial Agency of New South Wales, for produce from New South Wales; and the Agent-General for the Cape of Good Hope, for paintings of the flora and fauna of Cape Colony.

**MANCHESTER BOTANICAL AND HORTICULTURAL SOCIETY.**

THE horticulturists of Lancashire look upon the Whit Week function at the society's gardens, Old Trafford, as one of great importance and interest, and the present exhibition has fully upheld its reputation. This year the Manchester exhibition came before the Temple show, and possibly some falling off in the Orchid section was observed, but that was fully compensated by additions that were beautiful and new to the society. The entries numbered the same as last year, and, although the show house gave evidence of less material, the annex showed a distinct improvement, the groups being diversified and beautiful, and fully deserved a much larger share of patronage.

**COMPETITIVE.**

The best collection of Orchids in bloom, amateurs: Mr. H. Hollbrook, gardener to E. Ashworth, Esq., Wilmslow, secured the leading award for an interesting display which embraced most of the leading kinds. Especially good were Cattleya Skinnerii, C. Ashworthii, C. Mendelii Sandere, Lælio-Cattleya Phœbe, and many others; second, Mr. R. Nisbet, gardener to the Hon. W. A. Bass, Burton-on-Trent, for a telling display; third, Mr. W. T. Gould, gardener to Mrs. S. Wood, Glossop.

Collection of Orchids arranged for effect, nurserymen: Messrs. J. Cypher and Sons, Cheltenham, were to the fore with a charming display set up in the form of two half-circles rising from the ground. Lælia purpurata, L. tenebrosa, Cypripedium grande atratum, Cattleya Skinnerii, and Oncidium macranthum were a few of many telling forms.

For a collection of Odontoglossums, amateurs, E. Ashworth, Esq., was again in strong form with telling effect, O. Pescatorei and O. crispum Sir J. Goldsmid being excellent.

For ten stove and greenhouse plants in flower Messrs. J. Cypher were again to the fore with well-grown plants of Erica Cavendishii and depressa, Azalea Mrs. Turner, cedonulli, and Victoria, Hedaroma tulipifera and fuchsoides, Anthurium Scherzerianum, Bougainvillea Cypherii, and Clerodendron Balfourii. For six stove and greenhouse plants in bloom, amateurs, Thomas Harker, Esq., was first.

Group of miscellaneous plants, 150 feet, amateurs: Mr. James Smith, gardener to James Brown, Esq., was to the fore with a pleasing arrangement, in which Palms, Crotons, Caladiums, and W. A. Richardson Rose were most effective.

Group of 100 square feet, amateurs: Thomas Shawcross, Esq., Stretford, and Thomas Mulloy, gardener to Thomas Harker, Esq., Withington, were placed as named.

Group of not less than 300 square feet, nurserymen: Messrs. R. P. Ker and Sons, Liverpool, won with a very fine combination, having a good background of Bamboos and Palms, the dot plants being Hydrangeas and Crotons, with a groundwork of moss, Ferns, Caladiums, Amaryllis, &c. Messrs. Thomas Cripps and Sons, Tunbridge Wells, were competitors, but the judges wisely judged the exhibit on its own merits, and awarded it a special prize of £20, being of equal value to the first prize. This display took the form of Acers and many other choice varieties of deciduous trees, with a number of choice conifers. Amongst them were palmatum rubrifolium, p. dissectum ornatum, and japonicum lacinatum, all very telling. The plants were arranged on a bank, which made the display more effective.

Six foliage plants: First, Mr. Thomas Mulloy, gardener to Thomas Harker, Esq., with Palms and Ferns; second, Mr. A. R. Kelley, gardener to Mrs. F. M. Aitken, Fallowfield.

Collection of roses: James Brown, Esq., was well to the fore with large clean foliage and good blooms; second, Thomas Harker, Esq.

Six exotic Ferns: Thomas Harker, Esq., Mrs. F. M. Aitken, and Mr. J. Donovan, gardener to Major H. Cardwell, were the prize-winners.

Eight plants for dinner-table decoration: The winners proved to be Major H. Cardwell, Messrs. G. H. Gaddum, and T. Shawcross, Esq.

Twelve Cinerarias: Mr. J. Eston, gardener to Stanley Pearson, Esq., was to the fore with fine plants of stellata form; second, G. H. Gaddum, Esq.

Twelve Calceolarias: The first prize was well ahead, the winners being Stanley Pearson, Esq., Mr. E. W. Seal, gardener to E. Behrens, Esq., and J. Brown, Esq.

Twelve Gloxinias: Mr. E. Unsworth, gardener to E. F. Shephard, Esq., and Thomas Harker, Esq., were placed as named.

Thirty hardy herbaceous and alpine plants: Thomas Shawcross, Esq., was the leader.

Twelve varieties: Mr. T. H. Thorley, gardener to Dr. Pownall, Major H. Cardwell, and J. Holt, Esq., were placed in the order named.

For the best collection, not less than fifty varieties, nurserymen, arranged for effect: Mr. John Robson, Altrincham, won with a pleasing display of Auricula Queen Alexandra and Myosotis alpestris grandiflora; Messrs. Caldwell and Sons and Mr. John Derbyshire were second and third.

Ten hardy Ferns: First, Mr. J. Derbyshire, Hale.

Six hardy Ferns: Thomas Harker, Esq., was to the fore with good fresh plants; second, Major H. Cardwell.

Six Adiantums: First, Mr. H. Barber, gardener to C. Slater, Esq., with fresh plants, fragrantissimum being good; Messrs. Thomas Barker and E. Behrens were second and third.

Twelve Begonias in bloom: First, Major H. Caldwell.

Twelve pots of Pansies or Violas: The first and second were Mr. John Holt, Ashton-on-Mersey, and Mr. John Robson.

Six Coleus: Messrs. S. Pearson, J. Brown, and Major H. Cardwell were the winners.

Six Calceolarias: G. H. Gaddum won well; Major H. Cardwell and T. Shawcross, Esq., were second and third.

Specimen foliage plant: First, Thomas Shawcross, Esq., with Pandanus Veitchii; second, J. Brown, Esq.; third, E. Slater, Esq.

Stove plant in flower: First, Mr. H. Barton, gardener to C. Slater, Esq., with Ixora Williamsii.

Greenhouse foliage plant: First, E. O. Schneider, Esq., Whalley Range; Messrs. C. Slater and J. Brown were second and third.

Specimen Fern: Thomas Shawcross, Esq., Mrs. Aitken, and E. Behrens were the winners.

Dinner-table decoration: Mr. J. Nixon, gardener to Oswald Robinson, Esq., Alderly Edge, was deservedly placed in front with a light pleasing arrangement; second, Mr. H. D. Goulden, Manchester.

**NON-COMPETITIVE.**

As usual, these helped in a marked degree to the beauty of the show, and in many cases adding interest by introducing subjects not contained in the schedule.

Gold medals.—Messrs. John Cowan and Co., Gateacre, contributed an effective group of Orchids, including Odontoglossum vexillarium, O. v. cobbianum, Cattleya Skinnerii alba, C. schilleriana, Cypripedium callosum Sandere, and many others. Mr. A. J. A. Bruce, Chorlton-cum-Hardy, contributed a very fine display of Sarracenias, well grown and in considerable numbers. Messrs. A. Dickson and Sons, Newtownards, showed a brilliant table of May and Darwin Tulips with fine strong stems and large blooms, including Laurentia, Rev. H. H. D'Ombrain, Jaime d'Eufr, Rev. Harper Crewe, Hobbema, &c. Messrs. Smith and Co., Worcester, for a mixed collection, including well-flowered Clematis, Lilaes, Acers, Roses, and many other kinds.

Silver-gilt medal.—Messrs. J. Waterer and Son, Bagshot, contributed in the usual liberal manner a collection of well-flowered Rhododendrons, which included Pink Pearl, Cynthia, Kate Waterer, &c.

Silver medals.—These were given for many meritorious collections, including Mr. John Robson, Altrincham, for a pleasing collection of Orchids, including Odontoglossum in variety, Cattleya Skinnerii, Carnations, &c. Messrs. Clibran, Altrincham, had a well-grown lot of Calla Pentlandii, Palms, alpine plants, and the new art metal ware for decorations. Messrs. Dickson and Robinson, Manchester, staged a pleasing collection of May and Darwin Tulips. W. Duckworth, Esq., had a telling group of Orchids, including fine pieces of Oncidium marshallianum, Odontoglossums, &c.

Awards of merit.—E. Ashworth, Esq., for hybrid Dendrobiumobile macrophyllum and Eriopsis rutidobulbon; Mr. J. Cypher, for Vanda terebinthifera, Lælia purpurata Duchess, L. Imperor, and Odontoglossum crispum Clayii; Messrs. John Cowan and Co., for Odontoglossum crispum, a variety of charming colour.

As usual, the arrangements were ably carried out by Mr. P. Weathers, assisted by Mr. Paul.

**THE BRITISH GARDENERS' ASSOCIATION.**

THIS is referred to in the leading article this week, but the following sets forth its aims:

**PROSPECTUS.**

The objects for which this association is to be formed have already been made known in a pamphlet entitled "Plea for a Gardeners' Association," 10,000 copies of which have been distributed by post and otherwise to gardeners throughout the British Isles. These objects are therein stated to be: (1) To admit as members all who are professionally employed in any branch of horticulture, including private and public gardens, the nursery and seed trades, and market gardens; (2) to establish a register of gardeners, with a view to regulating and controlling the labour market for gardeners; (3) to regulate the wages of gardeners with due regard to the interests of both employer and employed; (4) to regulate the working hours of gardeners by fixing the limit of a day's work, beyond which all work done shall be counted as overtime and be paid for; (5) to co-operate for the promotion of the interests of the profession and the welfare of all who belong to it.

To organise the association so as to make it effective for all branches of the profession in every part of the country, it is proposed to elect an executive council, to appoint a paid secretary, and to rent an office in London where the secretary will conduct the business of the association and the executive council hold their meetings. It is also proposed to establish a branch in every large town, and wherever there are sufficient gardeners to form one. As, however, the executive council will require to be elected by the members of the association, the work of organisation will be conducted by a committee of selection, comprising those members of the provisional committee who are willing to serve, and twelve other gardeners to be elected at the meeting. These will co-operate with the secretary until 500 or more members have joined. The election of an executive council will then be proceeded with on the lines laid down in the rules for the general management of the association. To enable the committee of selection to commence operations and to secure the services of a secretary and an office the sum of £250 will be needed at once.

An appeal committee, consisting of the general secretary and of one member elected by the branches of each district will have power to dissolve the executive council. This provision is made to enable country members to have a voice in the general management. Legal advice will be needed, and this will be afforded by Mr. R. S. Garnett, solicitor, Clements' Inn, Strand, who has had experience in the promotion of similar associations, and to whom the provisional committee are indebted for help and advice in preparing this scheme.

**QUALIFICATION FOR MEMBERSHIP.**

(1) To be not less than 20 years of age; (2) if less than 23 years of age to have had at least 5 years' training in good private, public, or commercial establishments; (3) if more

than 23 years of age, to have had at least 7 consecutive years' professional experience; (4) to be able to produce satisfactory testimony as to general character. Candidates must obtain from the secretary a form of application, which when filled up should be returned to him. If the committee of selection are satisfied that the candidate is qualified for membership, they will instruct the secretary to forward him a certificate. The certificate will be renewed annually on receipt of subscription. The charge for registration and certificate will be 2s. 6d. and the annual subscription 2s. 6d. These two sums should be forwarded to the secretary, together with the form of application. Proof of membership will be the possession of the association's certificate for the current year.

NOTE.—These regulations are special to the period in which the committee of selection will be in office. Regulations for the election of members, &c., are included in the rules for the general management of the association.

**REGISTRATION.**

A register of members will be kept at the central office, and it will be the duty of the secretary to see that full particulars of every member are entered in a book to be called the general registration book, which will be open for inspection by members at a day's notice at all reasonable times. It will contain the name, age (date of birth), married or single, and present situation of every member.

The association will also keep a record of the professional experience of its members. It will thus be in a position to furnish reliable testimony as to the qualifications and character of applicants for situations. The association will also act as far as its resources will allow as an employment registry office, so that members desiring to change their situations or employers seeking to engage the services of a gardener may be assisted.

**WAGES.**

The association will endeavour by legitimate means to secure for every section of its members a fair rate of pay. It is generally admitted, even by employers, that the present scale of wages for gardeners is unsatisfactory. The difficulties in the way of improvement will not be easily removed, but they will have to be faced. The result of enquiry in seventy-five gardens all over the country in which skilled journeymen are employed shows that the average wages are 17s., with bothy, &c., and if the latter requisite is valued at 3s., the total weekly wages of a man who has been trained for at least five years in his profession are 20s. The appointed legislators of Great Britain have lately stipulated in Parliament that the lowest weekly wages to be paid for unskilled labour shall be 21s. The association hopes to effect an improvement by recommending the following scale of weekly wages for gardeners: (1) Journeyman, 18s. with bothy, &c., 21s. without; (2) Foreman in gardens and small nurseries and single-handed gardeners, 24s. with bothy or house, 27s. without; (3) Gardeners and departmental foremen in nurseries with less than five assistants, 30s. with house, 35s. without; (4) Gardeners and departmental foremen in nurseries with five or more assistants, 35s. with house, 40s. without. It should be clearly understood that these are minimum rates. Where the duties and responsibilities of the post would justify a higher rate the association will endeavour to obtain it.

**WORKING HOURS.**

The duties of a gardener often necessitate his working more hours per day than almost any other skilled operative; he has also often to perform duties late at night and on Sunday. Whilst the association will recognise that it is impossible to do away with long hours and extra duties, it will endeavour to secure for its members payment for all overtime. The result of enquiry in seventy-five gardens, public and private, in all parts of the country, is to show that it is usual to pay for overtime, that in many gardens Sunday work is paid for, but that in only a few is night duty treated as overtime and paid for. The association will endeavour to get employers to adopt the following arrangement:

**HOURS OF LABOUR.**

Summer period (9 months), 56 hours per week (maximum): 5 days of ten hours, 6 to 5.30, with 1½ hours for meals, and 1 day of 6 hours. Winter period (3 months), 43 hours per week (maximum). All other time worked, including night and Sunday duty, to be counted as overtime and paid for.

**GARDENER APPRENTICES.**

The association will take steps to control the intake of gardeners by refusing to recognise as suitable training for a youth employment in some menial position, or in a place where there is no gardening worthy of the name. It will rely upon the vigilance of its members to keep out young men who may be otherwise worthy, but who cannot honestly be called gardeners. The requisite five years' training must be in gardens of repute. The association will keep a registry of gardens, nurseries, and other establishments, training in which would constitute a claim to membership, in the belief that both parents and employers will find it advantageous to consult the association where apprentices are concerned.

**FOREIGN GARDENERS.**

Foreign gardeners, whether temporarily or permanently employed in this country, will be eligible for membership, provided they are qualified and agree to abide by the rules of the association.

Particulars as to the secretary, address of central office, &c., will be published in the gardening papers as soon as possible. Meanwhile all communications, donations, &c., may be addressed to Mr. W. Watson, Kew Road, Kew.

**The Gardeners' Association meeting.**—I observe in your report of the meeting of gardeners held in Essex Hall, London, on the 1st inst., that I am stated to have supported the amendment advising the adjournment of the

meeting. I did not do so, having expressly stated that I supported neither motion nor amendment. I was too little assured of the usefulness of such an association as is proposed to support either proposition. I simply pointed out that whilst in one part of the prospectus issued it was stated that "all" persons associated with horticulture would be eligible as members, also that all members must be registered, elsewhere it laid down limitations as to who might be registered. Also in two clauses, those relating to wages and hours of labour, the word "regulate" is used, and that word I showed meant compulsion or nothing. Practically, the word makes the society, as Mr. Herbert Burrows admitted, a trade union.—ALEX. DEAN.

**Japanese Garden in the Abbey Park, Leicester.**—A novel idea has been introduced into the Abbey Park, Leicester, by the making of a Japanese garden. A bank of mud dredged from the ornamental water was the only available spot. This north side of the mud bank has been terraced with rock to imitate Nature, as the Japanese try to copy and improve on natural surroundings. In all Japanese gardens there is usually a stream and bridge, and where this is not available they make a dry watercourse with pebbles. This has been done, and the bed of pebbles leads into a circular pond. At the entrance are two stone lamps, which are not so much used for lighting as to harmonise with surrounding vegetation. They use a great variety of stone lamps of different designs. Immediately behind is a red and black Shinto Torii, which is a boat-shaped crossbeam with two uprights of striking form, which harmonise well with the surrounding vegetation. These erections are a prominent feature of Japanese scenery, and are entrance gates to the temples and also at the entrance of a village and garden. At the further end is an older form of Torii, and in the centre of the path a square pergola or trellis poles covered with Roses, Wistarias, and other climbing plants. Scattered about are other stone lamps. On a jutting rock is a Mushroom-shaped lamp, and on the island close to the water is another one. The Japanese take great pains with their water margins. A large *Cycas revoluta*, *Cryptomerias*, *Pæonies*, *Bamboos*, *Maples*, *Retinosporas*, and a variety of Japanese plants have been planted, and when time has softened and toned down the garden and stone lamps it will be a great improvement.—THEODORE WALKER, F.R.G.S., Leicester. [Mr. Walker also sends several photographs, which, unfortunately, would not make good reproductions, and in a letter mentions that this garden will be formally opened on August Bank Holiday next, the occasion of the great show in the Abbey Park gardens. The garden was made by Mr. Walker, with the assistance of Mr. Burton, superintendent of the Leicester parks.—ED.]

**Rhododendron Ascot Brilliant.**—During a recent visit to Kew this *Rhododendron* was, from its brightness of colouring, very noticeable among the numerous varieties then in bloom. It is a hybrid raised by Mr. Waterer between the Himalayan R. Thomsoni and one of the garden varieties. Inheriting as it does the bright scarlet colour of R. Thomsoni, it also bears a good deal of resemblance to that species in the shape of the flower and loosely disposed cluster of bloom; but still there are many points of difference, more or less marked, prominent among them being the fact that it is somewhat later in flowering, and as a rule escapes the spring frosts which often mar the beauty, not only of R. Thomsoni, but of some of the other Himalayan kinds. It is certainly a desirable form, but I believe difficult to obtain from nurseries, except as small plants. Another hybrid claiming parentage from R. Thomsoni which has attracted much attention within the last few years is R. Shilsoni, raised by Mr. Shilson, of Tremough, in Cornwall, between this just-named species and R. barbatum. Both are bright-flowered kinds, so that the hybrid differs but little in colour, while in habit, leafage, and other particulars it is about midway between its parents. Another hybrid is Luscombei, the result of crossing R. Thomsoni with the Chinese R. Fortunei, while Francis Thiselton-Dyer is a good deal in the same way. Apart from Ascot Brilliant, the brightest tinted

form was Doncaster, later than the other in opening. It is a sturdy growing garden form, which is by Messrs. Veitch included in their list of the most select kinds.—T.

**Arisarum proboscideum.**—Among the comparatively few out-of-the-way hardy flowers exhibited at the Edinburgh spring show was the singular little *Arisarum proboscideum*, shown in the collection of Messrs. Stormonth and Son, Kirkbride, Cumberland. Few people seemed to know it, and many were struck by its singularity. It is seldom met with, and, in conversation with Mr. Stormonth, I was not surprised to learn that he and I had originally received it from the same source in England. No one can say that it is an attractive plant in the ordinary sense of the term, yet there is a peculiar attraction about it, and, curious as are its flowers with their long, tail-like terminations, they are pretty in their rather sombre colouring of purple-brown and green; this is greatly relieved by the white at the base of the spathe. The leaves surmount the flowers, and the latter can only be seen by drawing aside the leafy screen. The whole height is about 6 inches. *Arisarum proboscideum*, also called *Arum proboscideum*, is quite hardy, and grows best with me in shade and in light soil. It is a native of Italy.—S. ARNOTT.

**Wistaria sinensis.**—Appropriately enough, a house called Wistaria, leading to Thameside, Chiswick, has been quite wreathed with the large bluish lilac racemes of this fine, hardy climber. Chiswick is specially associated with the Wistaria, for Robert Fortune, when in the service of the Royal Horticultural Society as collector, in 1818, sent it home from China with many other fine subjects, identified with his fruitful journeyings, having as their result the enrichment of our gardens.—Quo.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—F. A. Sturge.—The Scilla is *S. nutans rosea*; the Pulemonium, P. Richardsoni; the Saxifraga, S. Sternbergii; and the Tulip, a variety of *Tulipa gesneriana*.—J. E. H.—*Cytisus Adamsi*.—C. E. F. Hayward.—*Salix nigricans* var. "Trees and Shrubs for English Gardens," by Mr. E. T. Cook, will answer your purpose; it can be obtained from THE GARDEN office.—J. W. Pearce.—*Cardiospermum Halicacabum*.—H. D. R.—A, *Berberis vulgaris*; B, *Spiraea Van Houttei*; C, specimen not complete enough for identification; D, *Cubæssa lawsoniana*.

**Diseased Carnation (RANGEMOOR).**—The primary cause of the unhealthiness of the Carnation plant you sent was the decay of the stem just below the surface of the soil. More than half the stem for about three-quarters of an inch was quite rotten. What caused the decay is more than I can tell. I could not find any fungus or insect to account for it. The condition of the leaves I believe is what the Americans call "stigmomosa." It need to be known as "bacteriosis," but it is now supposed to be caused or induced by the punctures of some insect such as aphides or thrips, but if the stem had been all right the leaves probably would not have suffered.—G. S. S.

**Insects on Roses (C. C. WILLIAMSON).**—The insects attacking the foliage of your Rose bushes are the clay-coloured weevil (*Otiurhynchus picipes*). You might shake the bushes over an open umbrella when the insects are feeding, or, before it is dark, lay a white sheet under the bushes, and then, when they are feeding, throw a bright light suddenly on them, when they will probably fall; if they do not, give the bushes a jarring shake, which will bring them down, and as they will lie, feigning to be dead, for a minute or so, they may easily be collected. Place some small bundles of Hay or Straw among the shoots or round the stems, so as to give the weevils a handy shelter to hide in during the day, and examine these traps every morning.—G. S. S.

**Heliotrope leaves dropping off (H. ROGERS).** Overwatering is undoubtedly the cause of your Heliotrope losing its leaves, for by watering daily the soil must be simply reduced to a state of mud, such as might suit Rushes,

Sedges, or similar plants, but it is certain to prove fatal to a Heliotrope. No gardening operation is more frequently mismanaged than that of watering, the tendency in nearly every case being to keep the plants too wet. Of course, we can give you no hard and fast line as to the watering of your Heliotrope, as so many items have to be taken into consideration, such as the size of the pot, whether the soil is full of roots or otherwise, the amount of shading (if any) during sunshine, and the position of the house in which it is growing all play a part in the matter, but, above all this, stands the state of the outside air, which has been extremely variable of late. So much does this influence the watering of plants that in a greenhouse we have under our observation many of the plants have lately gone three or four days without water, yet a short time since with a bright sun and drying wind it was absolutely necessary to water them every day. The object of watering is to keep the soil in as fairly an even state of moisture as possible, hence after watering it must be allowed to get moderately dry before any more is given. These instructions, combined with close observation, should enable you to have more success not only with your Heliotrope, but with other plants. Heliotropes can be readily struck from cuttings treated as recommended for the Hibiscus, and with attention it should flower throughout the summer in your greenhouse.

**The gardening vocation (S. K. THOMAS).**—Whilst your desire to enter the gardening profession is an admirable one, you will start very heavily handicapped in being twenty years of age and through your time so far being devoted to a very different profession. You are still further handicapped in seeking under these disadvantages to enter a vocation that is now overcrowded with really well-trained capable men, and any position such as you name invariably finds from 100 to 200 applicants from men having great practical experience. Botanical studies may help to a scientific knowledge of plants, but a knowledge of botany is to the average gardener rather an accomplishment than a necessity. To become proficient in the manual or practical side of gardening it is needful to start low down in garden work early in life, as all our best men have had to do, taking in quite elementary operations and gradually working up to the most advanced ones. During some fifteen to eighteen years so spent the wages are poor, and the pay of even the highest positions ranges only from £100 to £150 per annum with a house to live in. To manage a nursery or to superintend a public garden you would need fully twenty years of hard grinding in similar establishments on very low pay, and the chances of getting such a post after all is one in a thousand. As to starting a nursery on your own account certain failure and loss must result unless you have wide cultural, managing, and trading experience. If bent on that way of getting a livelihood you had best start with an acre of ground and a few glass houses, growing chiefly for market sale, and thus feel your way gradually. For such a purpose £100 to £150 would go a long way, but even then you should know how to most profitably expend that small outlay. Books, we fear, would help you very little. There is no knowledge so far as gardening is concerned like that acquired by practical work and experience. Your wisest course will be to select whichever branch or section of gardening you prefer, then to get engaged as an ordinary worker in some establishment or garden in that section, and thus have a few years experience. With a good education and intelligence you might acquire useful knowledge rapidly. You will see from this long reply to your various queries that gardening to a novice entering the vocation late in life holds out no special attractions. Its work is relatively poorly paid and its ranks are now overcrowded.

**Stopping Vine laterals (H. D. R.).**—The pinching of the points of the Grape-bearing shoots on Vines is not so much a matter of mathematical exactness as to understanding the conditions of the Vine at about the usual time stopping is done. If the laterals are stout and carrying good leaves pinching may take place so soon as a couple of leaves beyond the bunch formed on each shoot are well developed. If, on the other hand, the shoots are rather small and leafage the same, although carrying a bunch, it is wiser to allow a week or ten days more growth to take place before stopping the shoots. One of the chief reasons for stopping shoots by pinching is to keep the growths within bounds, or otherwise they soon crowd each other and exclude light from leaves and bunches. Another reason is that pinching is supposed to throw more of the Vine's strength into the bunch, although that point is by no means satisfactorily proved, as leader shoots on young Vines allowed to extend to any length have often carried some of the finest bunches. It is possible that your present gardener holds that in previous years your Vine shoots have been stopped too early, and thus have weakened the Vines, and hopes by allowing more time for the laterals to develop before pinching to restore strength in that way. The greater the leaf surface on a Vine the greater the root action, and when a Vine has been hard pinched and overcropped in previous years, it is good policy to allow the laterals to make free growth and pinch off all bunches for a year, as that is very potent to restore strength, although the sacrifice of a season's crop seems great. We may, however, point out to your gardener that whilst stopping by pinching may be delayed a little, it is bad policy to allow the wood of the laterals to become hard before stopping, as that necessitates the use of the knife, and in such case it is injurious to the Vine, and causes great waste of strength.

### GARDENING APPOINTMENT.

MR. W. MOORES, who was for some time under Mr. Capp in the fruit houses at Toddington Manor Gardens, Wincobcombe, has been appointed head gardener to W. F. Paul, Esq., Orwell Lodge, Ipswich, and takes over his duties on the 11th inst.

\*\* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.



# THE GARDEN

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[JUNE 18, 1904.]

## PROVINCIAL FLOWER SHOWS.

THERE can be little doubt that the flower shows which for generations have been held in different centres throughout the country, have had much to do with the increased love for gardens and gardening which has been so marked during the last few years. Metropolitan plant and flower exhibitions have much improved so far as the quality of the displays is concerned, and it is satisfactory to know that those responsible for the management of provincial exhibitions have also progressed with the demands of the times. Some of the large provincial shows leave nothing to be desired, for there one may see not only extensive displays of the better-known plants and flowers, but many noteworthy plants of recent introduction. Some have even made such progress as to grant certificates and awards of merit of their own, and these shows are to be commended, as they tend to encourage the production of new plants. Would it not be possible for the Royal Horticultural Society to send a deputation to provincial flower shows more frequently than is now the case? It would probably stimulate competition, and at the same time would bring the parent society into closer touch with local organisations.

Some provincial horticultural shows have one or more characteristic features that are not to be found in such excellence elsewhere, not even at metropolitan exhibitions. For instance, where can one see such splendid specimen plants of Fancy and Zonal Pelargoniums as at York, whose famous three days' gala was held this week? If one wishes to see the finest Grapes that Britain can produce, or the most tastefully-arranged table of the best dessert fruits, then it is imperative to go to the great Shrewsbury Floral Fête. Other instances might be given, for the increased number of provincial flower shows, as well as the greatly improved quality of those already established, has caused many of them to specialise in a certain class of plants. One has only to think of the exhibitions at Wolverhampton, Leicester, Birmingham, Hanley, Southampton, Edinburgh, Belfast, Dublin, etc., to bring to mind really fine displays of summer and autumn flowers.

But apart from their educational value, their influence in fostering a love for the culture of plants and flowers, as distinguished from an admiration for them when grown,

some of the provincial flower show societies are doing an admirable work in assisting local charitable institutions, and in other ways benefiting their respective towns. We know of no object more worthy of support than these societies which devote their surplus funds to such good purpose. May they long continue to thrive.

The York Gala, which opened on Wednesday last, may be said to inaugurate the season of provincial flower shows, and we take this opportunity of bringing them to the notice of our country readers who may care to give their patronage, or, perhaps, active co-operation.

## THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

### ANEMONES FROM LINCOLNSHIRE.

Messrs. Gilbert and Son, Anemone Nurseries, Dyke, Bourne, Lincolnshire, send flowers of Anemone blooms from plants which have been in beauty since the last week in March. They will continue so for another month, and although the flowers are not quite so fine in size the colour is very rich. All the Anemones are varieties of *A. coronaria*, and in the gathering sent to us were The Bride, single white, single blue, the beautiful double St. Brigid, Gilbert's Scarlet, a brilliant single flower of intense colouring; Queen of Roses, a double form, and the well-known King of Scarlets, which is the most intense of all, the flowers are quite double and almost painfully bright. This has been exhibited on more than one occasion, and always attracts attention, the colour being so intense and rich.

### MALMAISON CARNATIONS AND SWEET PEAS.

In THE GARDEN of last week, page 404, there is a note about the beautiful Malmaison Carnations and Sweet Peas from Mr. J. R. Batty; the full address should be Skelton Castle Gardens, Skelton-in-Cleveland, Yorks.

### PAPAVER ORIENTALE LADY ROSCOE.

Mr. R. C. Notcutt, The Nursery, Woodbridge, sends flowers of one of the most beautiful of all the varieties of Oriental Poppy, namely, Lady Roscoe. The flower has the boldness and dashing beauty of the type, but the colour is a clear shining salmon-

rose, pure, fresh, and uncommon. We shall make a group of this near the white Lupine; the association will be pleasing. It was given an award of merit by the Royal Horticultural Society last year.

### MINIATURE PANSIES.

Mr. Crane sends flowers of seedling miniature Pansies of delicate shades of blue, and as sweet scented as the Violet Princess of Wales. These little Pansies have a great charm; they are pretty to look at when cut, and the plants are tufts of growths, almost hidden with blossom in the full flowering time. For the rock garden especially this race may be commended.

### ROSE FORTUNE'S YELLOW.

"R." sends a beautiful gathering of Rose Fortune's Yellow from a tree more than twenty-five years old, growing on a wall 12 feet high, which it has overtopped. We should much like further information as to the aspect and cultural details.

### THE DOUBLE PURPLE ROCKET.

We are glad to be reminded of the sweetness and fine colour of the double purple Rocket by a bunch of it from Mr. Beckett, The Gardens, Aldenham House, Elstree. Mr. Beckett says it is a fine border plant, and its colouring is very rich, a true purple, pure and fresh. It is a pity such a good garden flower as this should be so scarce.

### CYPRIPEDIUM CANDIDUM.

Mr. Gillam sends from The Gardens, Naworth Castle, Carlisle, flowers of this beautiful Lady Slipper. He writes on June 1 as follows: "Cypripedium candidum is looking very charming at the present time in these gardens. I consider this species well worth more extensive cultivation than it receives at present, as it is quite as good as the exotic Orchids over which so much care is taken. It thrives well in a damp soil and shaded position, but I find that a mixture of peat, loam, and sand suits it best."

### CLIMBING ROSE MRS. W. J. GRANT.

A flower of this comes from Mr. Goodwin, The Elms, Kidderminster; the stem is very long and sturdy and the flower of large size. A handsome climbing Rose, free and showy.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Water Lily House.

ARISTOLOCHIA CYMBIFERA, Clerodendron speciosum, Dioscorea brasiliensis, Eranthemum tuberculatum, Nymphaeas in variety, and Pontaderia cordata.

#### Orchid Houses.

Acineta Barkeri, *Erises crassifolium*, *A. houlettiana*, *Anguloa Ruckeri*, *Bulbophyllum inflatum*, *B. Lobbii*, *B. Lobbii* var. *siamense*, *Ceologyne asperata*, *Cypripedium* (various species and varieties), *Dendrobium Calceolaria*, *Diplocentrum congestum*, *Disa langleyensis*, *Epidendrum Hartii*, *Eulophia euglossa*, *E. Ledienii*, *Lycaste*

Deppei, Masdevallia Carderi, M. Chimæra var. Rozlei, M. civilis, M. macrura, M. muscosa, M. peristeria, M. reichenbachiana, Maxillaria luteoalba, Microstylis congesta, Oncidium Hookeri, O. lanceanum, O. leucochilum, Ornithidium bicolor, Ornithocephalus grandiflorus, Platyclinis cornuta, P. filiformis, P. latifolia, Promenæa xanthina, and Theodora gomezoides.

#### Borders round Orchid Houses.

Abelia floribunda, Alstroemeria Ligti, Bomarea Salsilla, Spikelia formosissima, and Watsonia meriana var. O'Brieni.

#### T Range.

Allamanda grandiflora, Aphelandra squarrosa var. Louise, Chirita hamosa, Crossandra undulata, Gloriosa superba, Kalanchoe flammula, Kniphofia rufa, Littonia modesta, Notonia trachycarpa, Oxalis Ortgiesii, Passiflora raddiana, Pavetta caffra, Peperomia resedifolia, Scutellaria violacea, and Taccarinum Warmingii.

#### Alpine House.

— Achillea holosericea, A. obscura, Ajuga genevensis, Anthemis Biebersteiniana, Aquilegia pyrenaica, Arnica alpina, A. montana, Aster subcœruleus, Calceolaria plantaginea, C. polyrrhiza, Campanula portenschlagiana, C. cotyledon amœnus, Cypripedium humile, Inula montana, Lewisia rediviva, Liliun tenuifolium, Orchis sancta, Phlox ovata, Phyteuma lobelioideum, P. Scheuchzeri var. Charmelii, Potentilla delphinensis, Saxifraga mutata, S. Hosti × Aizoon, Silene alpestris, and Tanacetum radicans.

#### Arboretum.

Numerous trees and shrubs are in flower, of which species of Deutzia, Philadelphus, Genieta, and Rosa are the most conspicuous. Rambling Roses are now very fine in various places.

#### Rock Garden.

Aster diplostephioides, Bulbinella Hookeri, Calceolaria polyrrhiza, Cypripedium spectabile, Dianthus cœsius, D. callizonus, D. neglectus, Erigeron philadelphicus, Gentiana lutea, Geranium subcaulescens, Hemerocallis Dumortierii, H. flava, Hieracium villosum, Houstonia serpyllifolia, Linaria pallida, Melittis melissophyllum var. alba, Saxifraga in variety, Scutellaria altissima, Spiraea decumbens, Thalictrum tuberosum, and other things.

#### Herbaceous Borders.

Herbaceous plants are now flowering in large numbers, the following being very conspicuous: Aquilegias, Dianthus, Delphiniums, Erodiums, Hieraciums, Veronicas, Geraniums, Thalictrums, &c., in variety, also Crambe cordifolia, C. maritima, C. orientalis, C. pinnatifida, Scilla peruviana, Papaver pilosum, and other plants.

## HIGHNAM COURT AND ITS GARDENS.

THE garden which we illustrate is that of Highnam Court, a fine estate lying some two miles north of Gloucester. The grounds cover about fifty-six acres, and are well laid out, and diversified with fine timber, and in particular by many noble Yews and other coniferous trees. The Court is the seat of Sir Charles Hubert Hastings Parry, J.P., D.C.L., Mus.Doc., whose father, the late Mr. Thomas Gambier Parry, greatly beautified the place, and built and endowed at his own charge the splendid neighbouring church of the Holy Innocents, and with his own hand painted the frescoes, including the "Doom," the "Expulsion from Paradise," and the "Annunciation," and other subjects, which are such a remarkable feature of the edifice.

The district is that of the Dean Forest, and many fine trees are the remains of that ancient greenwood. Our picture well illustrates the stately and formal character of the grounds, and it may be added that, at the distance of about a mile from the house, in an elevated

situation, is a "pinetum," possessing one of the best collections of hardy coniferous trees in England, and including several rare Japanese varieties. This delightful cultivated area extends over several acres.

Highnam Court itself was erected after the Civil War, probably during the possession of William Cooke, who had been a colonel on the Parliamentary side, but was received into favour by Charles II. It is a plain edifice, said to be from the designs of Carter, a pupil of Inigo Jones, and surveyor of works to Cromwell. The old house at Highnam had become a ruin under the battering of the war. The Abbot of Gloucester had imparked the place in 1315, and had had a house there, which came at the Dissolution to the family of Arnold. Passing then through many hands, it passed to the Cooke family, and in the Civil War was garrisoned at times by both parties. The most memorable transaction was the siege of the place, and the capture there of a very large body of Welsh Royalists under Lord Herbert who had posted themselves in the mansion. The citizens of Gloucester cherished a kind of racial hatred against the Welsh, and their presence so near to the city was thought intolerable. Sir William Waller, at the head of a strong body of Parliamentary troops, advanced, therefore, rapidly from Wiltshire, instructing Colonel Massey to have horse and foot before Highnam, and to keep the Welshmen fully occupied. Heavy ordnance was brought up, and fire was opened upon the place. Meanwhile, flat-bottomed boats, which had been carried from London in waggons, sufficed for the passage of Waller's men at Framilode, six miles below Gloucester. Reaching the further side of the Severn, the vigorous Parliamentary leader then struck north, and established himself between the Welshmen and their line of retreat. They attempted to break through, but suffered heavy loss, and were compelled to surrender. In this tremendous struggle, however, Highnam House had suffered most grievously, and thus it was that the services of Carter were called for by Colonel William Cooke. This brief account of a very dramatic incident may serve to add a little interest to our picture of the Highnam Gardens.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

June 24.—Opening of College Gardens, Reading.  
June 28.—Royal Horticultural Society's Drill Hall Meeting.  
July 6.—National Rose Society's Temple Show; Southampton (two days), Croydon, Hereford, and Hanley (two days) Horticultural Shows.  
July 7.—Norwich Horticultural Show.  
July 12.—Royal Horticultural Society's Holland House Show (two days).

**Horticultural Club.**—A delightful evening was spent at the Hotel Windsor on Tuesday last. A paper was read by Sir John Lewelyn, Bart., upon "Himalayan Rhododendrons." Among those present were Sir George Watt, Mr. F. W. Moore of Glasnevin, Mr. Watson, curator of Kew Gardens, and Mr. Tutchet of Hong Kong. A full report will appear next week.

**Rhododendron Ascot Brilliant.**—A correspondent reminds us that this Rhododendron was raised by the late John Standish, and not by Mr. Waterer, as stated in THE GARDEN of last week (page 422).

**Parton House Gardens, Kirkcudbrightshire.**—Through the kindness of Mr. George Rigby Murray, of Parton House, Kirkcudbrightshire, who advertised in the local newspapers an invitation to the public to stroll through the

grounds and gardens on the 11th and 12th inst., to see the Rhododendrons and other flowering shrubs and trees, a large number of people took advantage of Mr. Murray's permission and visited the gardens. They were delighted with what they saw, Mr. McGeehan, the gardener, having everything in splendid order, while the Rhododendrons, Laburnums, Brooms, Thorns, and many flowers were in full beauty. Mr. Murray's generous permission was highly appreciated by the many from miles around who visited the gardens.—S. A.

**Dundee Horticultural Association.** The usual monthly meeting of the Dundee Horticultural Association was held in the Technical Institute, Dundee, on the evening of Tuesday, the 7th inst. There was a good attendance, and the subject of the paper for the evening was one of great interest to horticulturists. The title was "Enemies of the Horticulturist," and the subject was very ably dealt with from a scientific and practical point of view by the author, Dr. Robertson, of Errol, N.B. The discussion was also interesting.

**Xanthoceras sorbifolia.**—With me this plant does not flower at all freely. More sunlight and exposure seems necessary than what my plant receives. I lately saw a well-flowered example in the Aldenham Gardens, where, Mr. Beckett says, the plant has become well established, and flowers very well yearly.—E. M.

**Wistarias as bushes.**—Growing on the lawn here is a fine tree of the Wistaria. The growth is annually confined to spur and flower formation, no long growths being made at all. The tree is certainly not less than forty years old. It was originally traioed over a doorway-entrance to the kitchen garden, and in course of alteration here twenty-five years ago, the walls and door were taken away, thus leaving the Wistaria quite unsupported. I am told by a gentleman who has travelled through Japan that this plant is similar to those commonly met with there in the form of growth and training. Certainly, no more beautiful way of growing this flowering shrub could be realised than as a specimen upon grass; the green base serves to display the flowers thoroughly, while no matter which side the tree is seen from a mass of flowers is presented. The flowering annually is all that could be desired.—E. MOLYNEUX, Swanmore Park, Hants.

**The double Arabis.**—Whilst all who see this fine hardy spring flower when in full bloom are delighted with it and long to grow it, yet they often find when they do get it that it fails to flower satisfactorily. The reason, no doubt, is the too common practice of planting it in rather good soil, in which it is induced to grow luxuriantly and to make big leafage. The result is that bloom is far from being abundant. I have nowhere seen this Arabis blooming so abundantly as it did at Wisley last April. There, planted as a wide edging to an informal border, it ran out on to the sandy walk, and was literally a mass of snowy whiteness. When at Wisley on the 11th inst. I took special notice of the appearance of these clumps, and found them looking rather brown, as though somewhat starved. Yet it seemed to be just such conditions of growth as conduces to the production of great bloom. Those growers who so far have been disappointed with their plants should try an ample mixture of sand and lime rubbish.—A. D.

**Hybrid Gerberas.**—One of the most interesting, and at the same time one of the most beautiful, exhibits at the recent Temple show was the charming group of hybrid Gerberas so faithfully portrayed in THE GARDEN of the 11th inst. (page 405). True, we had heard of them before, but few, if any, who had not previously seen them were prepared to find such a striking proof of Mr. Lynch's skill in hybridising and successfully cultivating these South African Composites, for they are by no means always met with in a flourishing state. The silver cup awarded them was worthily bestowed, for when one looks at the humble way in which some of our popular classes of garden plants commenced (tuberous Begonias for instance), the great range of colour, and in a lesser degree of shape, obtained within such a comparatively short time is quite surprising. With all of them so beautiful it is a difficult matter to make

a selection, but the following struck me as among the best: Sir Michael, soft yellow, a large, perfectly formed flower; Brilliant, equally fine, and of a bright vermilion tint; King Arthur, rosy salmon; May Queen, pink; Hiawatha, scarlet; Mayflower, rich pink; and a white or nearly white form, grouped, I believe, under the head of *G. cantabrigensis*. Concerning the typical *G. Jamesoni*, it may be noted that it was first discovered by a Mr. R. Jameson, after whom it is named, at Barberton, in the Transvaal, previous to 1887, in which year it flowered for the first time in this country, but it remained quite a rare plant for years after this.—H. P.

**Mr. and Mrs. Albert Stevens's water-colour drawings.**—Mr. and Mrs.

Stevens are exhibiting at the present time a series of water-colour sketches at the Doré Gallery, Bond Street, for the most part of brilliant flower subjects, including many beautiful garden scenes. It is to be regretted that the pictures are hung so closely together, as the vivid colouring that, Mrs. Stevens more especially, delights in, and is so successful with, is to a great extent spoilt by their exceedingly close proximity to each other. However, notwithstanding this drawback, many call for special attention, notably "Lilies" (No. 15), a picture in which blue and white predominate with striking effect, white Lilies and brilliant blue Delphiniums lining a pathway and stretching away

into a long vista of blue and white, gradually merging into grey. No. 7 is another good picture of Delphiniums, whilst in "Hollyhocks" (No. 6) Hollyhocks are shown very happily against the background of a white house. Much more subdued in tone than any of these, and delicately pretty, is Mrs. Stevens's "A Garden in Paris" (No. 10). The Deanery Gardens, Sonning, form the subject of many of the most successful pictures of both Mr. and Mrs. Stevens, one of the most interesting being No. 64, while another, bearing merely the title of "In a Garden at Sonning" (No. 13), is exceedingly good with its brilliant colouring to the fore and delicate background. The exhibition should be visited by those in particular who care for flowers and gardens.

**Lælio - Cattleya Laura Gilbert**

(*Lælio-Cattleya Martinetti* × *Lælia elegans*).—A new and distinct hybrid has just flowered in the collection of Mr. R. H. Measures at The Woodlands, Streatham. In general shape the flowers are not unlike those of *Cattleya Mendelii*, except that the labellum is much more elongated and more beautiful, the border more heavily fluted, and the whole flower of much greater substance. The sepals are thick and waxlike, as though carved, ivory white, flushed, with a light bronze rose tint, derived, no doubt, from the *tenebrosa* influence. The petals are beautifully pencilled and flushed with soft lilac-rose, deepest on the centre and apices,

much as in heavily feathered forms of *Cattleya Trianae backhousiana*, though the contrast of colours is not so intense, while on the sepals a tinge of bronze is apparent, just sufficiently strong to add to the beauty of the flowers. The lip is finely coloured. The heavily gophered margin is of a lighter shade than the frontal area, which is of a rich crimson-maroon, plush-like in effect, deepest centrally, extending in a well-defined band to beneath the apex of the column, whence from the base of the column it is met by short crimson radiating lines, between which and the front lobe are two lemon yellow blotches, clearly defined, and most conspicuous near the median, shading from thence into soft white, which occupies the remainder of the inner surfaces and the whole of the outer. This charming hybrid is both new and distinct, being derived from the magnificent *Turneri* type of *elegans* which have their home at The Woodlands, and which are unequalled for beauty, variety, and quantity. In this hybrid we have *Lælia purpurata* and *Cattleya Leopoldi* in the seed parent, *Cattleya Mossie* and *Lælia tenebrosa* in the male parent, both parents being hybrids, and in this direction lie some of the greatest possibilities of obtaining new *Lælio-Cattleyas* of marked distinctness and beauty.—

ARGUTUS.

**Government Fruit Enquiry Committee.**—The Departmental Committee appointed by Lord Onslow to enquire into and repor



IN THE GARDENS OF HIGHNAM COURT.

upon the fruit industry of Great Britain held sittings on the 1st, 2nd, and 3rd inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Monro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). The following witnesses gave evidence: Mr. Thomas Pringle, fruit merchant, Newcastle-on-Tyne; Mr. William Craze, fruit merchant, Liverpool; Mr. E. G. Wheler, president of the Land Agents' Society; Mr. Thomas Blackwell and Mr. Cbivers, jam manufacturers; Mr. Cecil Warburton, zoologist to the Royal Agricultural Society of England; and Mr. H. T. Bulmer, cider manufacturer, Hereford.

**What is Nature study?**—It is by no means easy to give a definition of Nature study. There may be almost as many ideas of what is meant by Nature study as there are teachers teaching it or students studying it. Each teacher or student will have his own idea of what he means by the title, and perhaps any attempt to define the scope or to limit the meaning of Nature study might be a mistake. It is not the scientific study of any one subject, as botany, entomology, and geology; it is not the systematic study of a science; it is rather a method of study than a subject. It is a natural method, informal and unsystematic, and its essential feature is the cultivation of the powers of observation and the power of drawing correct conclusions from what is observed. By such a method the eye is trained to see and the mind to comprehend the every-day things of life just as they come to hand, without reference to the systematic order or relationships of the objects.—E. CHAS. HORRELL, F.L.S., in *Field Studies in Natural History*.

**Protecting Strawberry bloom.**—As the writer who advocated protecting the blossom for an early lot of fruits, I had no intention of advocating it for a large area, and my note, if I mistake not, only referred to sheltered borders, to preserve the earliest flowers. I did not intend to advise such means as "H. A. P." suggests. To do so would have been unwise. I well remember the occasion "H. A. P." refers to, some years ago, when many acres of Strawberries in the Thames Valley were badly injured by frost, and I may add, though I protect a long run of narrow border in front of fruit houses, I do not find it necessary to cover. We grow more than one acre of plants in the open, but these are later varieties, which rarely fail. I admire the simple method adopted by "H. A. P.," but even then there is a certain amount of labour in covering and uncovering, and care is required to remove masses of litter from plants in flower. In the note referred to (page 386) it is not mentioned that I stated the protector is most valuable, as, being in position, the fruits are readily covered. This at the time named is a saving of time. We require Strawberries as early as possible to follow the forced ones, and we get our earliest in the way mentioned.—G. WYTHES.

**Caterpillars on Gooseberry Bushes.**—In many gardens in this locality the above pest is most troublesome this season, and in a few instances the amateur or smaller grower is in despair, not knowing the best remedies to adopt to check its ravages. It is almost useless to merely give lime or soot under the trees, as, though excellent in its way, it is only a half measure. The caterpillar continues to spread, and in the end the trees are entirely stripped of their foliage, with the result that the buds for next season are weakened and the crop much reduced. There is no doubt that Hellebore powder is one of the best and most simple remedies. It is quickly applied and is not costly. Place the powder in a fluff or dredger, and lightly dust it over the trees early in the day when the foliage is damp. The caterpillar falls, and if a little is sprinkled over the surface soil any that drop never come up again. The objection to Hellebore powder is that it must not remain on the fruit, so that when used at all freely the trees should be syringed over with clear water. This does good in other ways, as it distributes the powder. There are

other means of destroying the pests, but it must be remembered that whatever is used must not affect the fruits. I have used quassia to advantage, but this is not a safe remedy, as, when used at all strongly, the fruit is unpalatable. Recently I tried a small quantity of soluble petroleum, half a pint to three gallons of water. This was efficient, but care is needful in its use, as too much petroleum is harmful. In no case should raw spirit be used. The old remedy of soap-suds is not bad if used in quantity sufficient to kill the pest, or at least to dislodge it, and if this is done and a good portion of freshly slaked lime and soot spread on the ground afterwards much good will result. I do not like using dry lime or soot on the trees. When this is dusted on the bushes it adheres to the fruit and is most objectionable. The pest is almost as troublesome on Red and White Currants. The same remedies are applicable, but much may be done in the winter to get rid of the pest, as it winters in the surface soil, and if this is removed much of the grub is destroyed if the soil is burnt. Even with the greatest care a few are left, which increase so rapidly that it is well to dress the land with fresh lime and new soil or manure to assist root growth.—G. WYTHES.

#### THE SHEPHERD'S SUNDAY SONG.

THIS is the Lord's own day,  
I stand alone on grassy hill,  
A church bell echoes through the still  
Calm air from far away.

I kneel upon the ground.  
O sweet and sacred mystery!  
As if an unseen company  
Of angels stood around!

In reverence I pray.  
The sky is clear and blue and bright  
As though 'twould open to my sight.  
This is the Lord's own day.

—(Umland).

SYDNEY HESSELRIGGE.

**Phenological Observations for 1903.**—Mr. Edward Mawley, Fellow of the Royal Meteorological Society, has issued in booklet form his "Report on the Phenological Observations for 1903," published in the Quarterly Journal of the Royal Meteorological Society (April). We make the following extracts: The winter of 1902-3 proved everywhere warm, and more particularly was this the case in February, when the departures from the average in mean temperature ranged from +3°·2 in the south of Ireland and the north of Scotland to +5°·2 in the midland and north-eastern counties of England. The rainfall was exceptionally heavy in Scotland, above the average in Ireland and the north-west of England, but in all the other English districts less than a seasonable quantity of rain was deposited. Throughout the greater part of the British Isles there was a marked deficiency of bright sunshine. The spring, taken as a whole, was of about average temperature, March being the warm, and April the cold month of the season. In all districts the fall of rain was in excess of the mean, while scanty records of sunshine were equally general. Altogether this was a wet and gloomy season. In each of the three summer months the weather continued cold. In July, however, the mean temperature was in most districts only slightly below the average. This was another wet season, the rainfall being unusually heavy in all parts of the country. It was also another cloudy season, but there was not quite such a striking deficiency in the sunshine records as in those for the winter and spring. The autumn was more or less warm throughout, October being the most unseasonably warm month of the three. In all parts of the United Kingdom the fall of rain was in excess of the average, and especially was this the case in October, when the departure from the mean ranged between +1·5 inches in the south of Ireland and +4·7 inches in the west of Scotland.

**Fruit and vegetable farming.**—The Royal Agricultural Society announce the issue of two new illustrated pamphlets on these subjects, entitled "Practical Hints on Fruit Farming," by Mr. Charles Whitehead of Barming House, Maid-

stone; and "Practical Hints on Vegetable Farming," by Mr. James Udale of the Worcester County Experimental Gardens at Droitwich. Mr. Whitehead's pamphlet deals with methods of preservation and distribution, new orchards and plantations, the renovation of old orchards, and the cultivation of the principal fruits for market purposes. He also gives valuable information as to pruning, grafting, budding, picking, grading, packing, &c., together with a description of injurious insects and the methods of destroying them. Mr. Udale gives practical details for the cultivation on a farming scale of all the principal vegetables, those for convenience of reference being described in alphabetical order. The insect and other pests which injure vegetables and the approximate remedies are also described. Both pamphlets are published for the society by Mr. Murray at the price of 1s. each, but members may obtain copies at half price from the society's offices at 13, Hanover Square, or at the Agricultural Education Exhibition to be held in connexion with the society's show at Park Royal, Willesden, N.W., from the 21st to the 25th inst.

**The earliest Peas in 1904.**—This season our earliest Pea gathered from the open border is Veitch's Chelsea Gem, and, though a little later than four years ago, it is full early, as the season is not an early one. It is only fair to state that the pods referred to were taken from plants sown under glass the first week in December, grown from the start in cold frames, and planted out early in March. At the same time Sutton's May Queen and Bountiful were sown, and this season May Queen is just a trifle later. This is accounted for by the growth being much larger, the pods also, and the plants were rather badly cut by frost soon after planting. Bountiful, one of the hardiest and heaviest cropping of the early varieties, was planted in the open, so that in earliness it is not fair to make comparisons, but it is about a week later in the position noted, and is bearing very heavy crops. The earliest varieties sown in the open ground, and not sheltered in any way other than by mounding up and early staking, compare favourably with seed grown under glass for three months; indeed, the question may be asked: Why take all the trouble of glass or pot culture for such results when the plants from the open border are only a short time behind? The answer is that the gain of ten days to the large vegetable grower who needs as much variety as possible is important, and in seasons less favourable than the present there has been a difference of eighteen to twenty-one days, and the results were well worth the labour expended. This year the results in open borders are quite the reverse of pot-sown plants on a south border. Our earliest Pea is Sutton's May Queen. The seed was sown early in February, and the pods were ready by June 8, or a little under four months from the date of sowing. When its splendid cropping qualities, size, and Marrow flavour are taken into account, it will be seen what a valuable variety this is for earliest supplies. May Queen, owing to its size, is better than the small early white round Peas that were grown so largely a few years ago; the pods are well filled, and are produced very freely. Chelsea Gem, sown at the same time, is about three days later. This variety yields well, and is of excellent quality. It continues to crop well for some time, and is much grown for its earliness. Many can grow this who have heavy land, where the Marrows would fail to germinate if sown at the date noted above. The newer Acme is an excellent early variety, but I have not sown this under glass this season, so that I can only note its value in the open. On a south border it promises well, and is not much later than those named; it appears to be a larger or improved type of Chelsea Gem, with longer pods and a more vigorous haulm. Gradus follows those named above. This is not ready yet, but is most valuable, even when a few days later, owing to its flavour. This season some of our second early Peas are much dwarfier in growth than usual. This refers more to the dwarfier section. In some cases they are only half their height. Most of the earlier sorts, such as Sutton's Ideal, Early Giant, and Duchess of York are doing well this season.—G. WYTHES.

**The Moonlight Broom seedlings not true.**—Mrs. Robb, Golden Field, Liphook, writes: "Seeing the notice by 'W.' on the Moonlight Broom (by which name I christened it when sending a piece to the herbarium at Kew), I may say that, unfortunately, it does not come true from seed. One gets a few plants true out of many seedlings. Just now I have a good-sized stretch of it near a purple-leaved Nut, which sets it off well."

**National Amateur Gardeners' Association.**—The annual conversation will take place at Winchester House, Old Broad Street, E.C., on Tuesday evening, July 5, at seven o'clock. There is every prospect of the exhibition being considerably larger than formerly. As in previous years, a liberal supply of fruit will be served to all present. A musical programme, under the direction of Mr. G. M. Gross, is in course of preparation. The price of tickets will be 1s. 6d. each, and can be got from the hon. secretary, Mr. R. Cordwell, 35, Medusa Road, Catford, S.E.

**Narcissus triandrus albus.**—It may be of interest to some readers to hear that in a wet climate like this *Narcissus triandrus albus* seems to enjoy a soil composed of about two parts of lime, old mortar, and stones to one part or less of ordinary light soil, the bed being slightly raised. I have tried this *Narcissus* in two or three places—in shallow soil on a ledge of the natural rock, where it has nearly disappeared; in a limestone bed, where, under a covering of creeping plants, it has also not done well; mixed with *Cyclamineus* in a small stony bed which is drenched with water by a small spring near it whenever there is heavy rain, in which position it lives and flowers, but does not flourish; and finally in the bed I described above, where a dozen bulbs were planted two years ago. This year the twelve bulbs have thrown up fourteen flowering stems, six of these bearing one flower, four bearing two flowers, three bearing three flowers, and one stem with four flowers. This, I think, is good flowering. I imagine the bulbs like the baking they must get in the dry border with no growth over them.—A. M., *Amble-side*.

**Tufted Pansy Rose Noble.**—Since the introduction of Mr. George McLeod's rayless orange-yellow Tufted Pansy (*Viola* A. J. Rowberry many changes have taken place among the yellow sorts. We now have quite a list of rich yellow rayless varieties of varying merit, and in many instances it is quite easy to trace the parentage to the original A. J. Rowberry before referred to. There were one or two rayless yellows previously, but owing to their weakly growth and other failings little has been heard of them since. The variety under notice is one of the richest in colour of all. It might almost be described as orange, and most effective it is when planted in colonies in the border. The flowers are large and circular, the lower petal being cupped in the early summer. The flowers have plenty of substance, and each of the latter are borne on stout, erect foot-stalks. It is a good self-coloured flower and rayless, and if only its habit was rather less vigorous than it is there would be nothing to complain of. I first saw it in bloom in Mr. William Sydenham's garden at Tamworth in the spring of 1903, and was fortunate in procuring plants at once.—D. B. C.

**Rehmannia angulata.**—This plant, which is a native of Central China, has been recently introduced by Messrs. James Veitch and Sons. It is of erect growth, and attains a height of from 2 feet to 2½ feet, producing solitary flowers in the axils of the leaves. The flowers are drooping, two-lipped, and rose-purple in colour, with a yellow throat deeply spotted or blotched with purple. *Rehmannia* belongs to the same family as the Foxglove, to which the flowers of this species might be roughly compared. This plant is seen to the best advantage when grown in a cold greenhouse. Like the Foxglove, it continues to produce fresh flowers at the apex as the older ones fade. No plant is more easily cultivated, it seeds freely, and better results are obtained by treating it as an annual rather than by growing on the old plants. The Royal Horticultural Society

have shown their approval of the *Rehmannia* by giving it an award of merit. At the recent Temple show there was an effective group of it with a groundwork of *Lobelia tenuior*.—H. S.

**Potato plants from cuttings.**—The staging by one adventurous exhibitor of about fifty plants in 5-inch pots and of varying heights of the famous Eldorado Potato at the Temple show must have proved a severe temptation to some visitors who have heard or read of the marvellous prices paid for tubers of this new variety. Yet the mere staging of so many plants under such conditions rather tends to show that the prices asked for such plants have been intended to be prohibitory rather than commercial. No one would dream of looking for two guineas' worth of produce from a single plant next autumn. The plants did not look very robust, such as the tops of some other varieties show, but that may have been due to the artificial way in which they had been grown. It is hoped that the practice of propagating Potatoes from stock in this way under glass and in warmth will be severely tested as to results in relation to constitution and cropping during the present season.—A. D.

**The National Potato Society.**—Potato fanciers will be much interested to learn that not only has Sir J. T. D. Llewelyn, Bart., of Penllergare, Swansea, accepted the position of president of this new society, but has also kindly consented to give a ten guinea cup as a prize in one of the classes. Sir John has had a famous Potato worthily named after him. We are pleased to learn that arrangements have been made for the holding of an exhibition of Potatoes by the society at the Crystal Palace during the second week in October, and that the trade are giving to the show tangible support. It is also most probable that a conference relating to Potatoes will be held on one or both days of the show, as those gatherings seem to be essential features in relation to an exhibition now.—D.

**Tufted Pansy Ethereal.**—This is a beautiful Tufted Pansy, raised by the late Dr. Charles Stuart, Chirnside, N.B. A year before his death Dr. Stuart sent me a few of his novelties for trial, and among the more promising of them was the variety under notice. During the first year, probably owing to the position in which it was planted, it did not succeed. The second year in a better position the plants did much better, and at the present time, three years after first acquiring stock, they are in full beauty. The flowers are of medium size and almost circular. The colour may be described as a very pleasing shade of lavender, with the faintest tinge of blue. There is a small white blotch in the centre, in which the yellow rayless eye is set. The flowers also are sweet-scented. The plant is of tufted habit, and it flowers persistently and profusely. Groups of twenty to fifty plants in the hardy border should be very striking and handsome. As a plant for the rock garden it is excellent, the tufts quickly developing.—D. B. CRANE.

**Hardy plants at the Temple show.** If anyone had the least doubt of the great popularity of hardy plants, that must surely have been removed at the recent exhibition. Apart from the great wealth of flowers there was a general improvement in the arrangement, and in one instance the special award for good arrangement was given to a grouping of hardy plants. It could hardly have been otherwise, and the group from Messrs. Wallace and Co., Colchester, deserved high praise. The collection of bunches only, often tightly arranged in small-necked bottles, conveys no lesson. A mass of cut spikes of *Heuchera sanguinea* is brilliant enough, but a third of the blossoms would be far more effective and more natural if on the growing plant and grouped in a colony to show its value in the garden. What is true of this is true of other *Heucheras* that have even greater elegance. If we desired to pursue the subject further mention could be made of *Columbines*, of *Thalictrums*, and other things. The growing plant colonised in a group is the best safeguard against overcrowding, which is the most common error to-day. What we noted with pleasure was the almost entire absence of lifted

plants as compared with former years, when the Oriental Poppy with drooping flowers was far too evident, even on the first day. As regards the subjects displayed, their name is legion, and the abundance of the alpine, the hardy perennials (so-called), and the bulbous things prevents special mention to any extent. In hardy flowering plants the absolute novelty was limited, and we recall two, viz., *Campanula rupestris* and *Silene palestina*, with *Thalictrum pubescens* as a great rarity. The former has the habit of flowering almost of the *Edraianthus*, but the slightly wiry stems are distinct. The downy leaves recall *Campanula balchiniana*, and the erect flowers are bluish, with violet stripe internally in the early stages. We regard it as an ideal plant for the rock garden. The *Silene* is a great gain; we may see this plant again. Good and choice alpine were plentiful, and we select *Ramondia pyrenaica alba*, *Daphne rupestris*, *Ourisia coccinea*, *Haberlea rhodopensis*, *Primula farinosa*, *Onosma echioides*, *Gentiana verna*, *Iris gracilipes*, a species having the low stature of *I. cristata* and flowers of a miniature *I. tectorum*. It is a most interesting kind. Lilies and Spanish Irises were in great force. *Eremuri* were plentiful. Lady's Slipper Orchids (*Cypripediums*) were beautiful everywhere, and quite worthily represented generally. Some new shades of Poppies—"Liberty Poppies," as we heard them called—created quite a feast of colour. One Poppy, *Distinction*, is of crushed strawberry, with a dark blotch. Mrs. Marsh and Black Knight were very fine and distinct. An excellent variety of *Phlox canadensis* is Perry's improved form, and a worthy garden plant. *Incarvillea Delavayi* was conspicuous and good in colour, and we noted a solitary plant with a solitary flower of the rarer *I. grandiflora*, in which the colour was very rich.—E. H. JENKINS, *Hampton Hill*.

## CULTIVATION OF ALPINE PLANTS.

(Continued from page 411.)

### FACING ROCKERY.

THE second form, or facing rockery, is dependent upon the natural shape of ground-surface. Wherever there is a steep bank facing south or east it may be utilised for the growth of alpine. The stones, as before advised, should be large and unshapely, and be buried to two-thirds of their bulk, and form a very uneven surface, all being interlocked from top to bottom as described. Rockeries of this form are less liable to suffer from drought; if the surface covered is large, access to all parts should be provided by convenient stepping-stones, because, although every stone in the structure ought to be capable of bearing the weight of a heavy man without danger of displacement, it is better not to have to tread upon the plants.

### THE SUNK ROCKERY.

This is perhaps the best of all, but entails rather more labour in construction. Where subsoil drainage is perfect, a sunk walk may be made, not less than 10 feet or 12 feet wide, with sloping sides. The sides may be faced with stones, as described in the second form of rockery, and all or part of the excavated soil may be made into a raised mound, continuing the slopes of the excavated banks above the ground-level, and thus combining the facing rockery and the barrow-rockery. If the outer line of this portion above the ground be varied by small bays, every possible aspect and slope may be provided to suit the taste of every plant. However, unless drainage is perfect, a sunk walk, rising to the ground-level at each end, would not be feasible. But a broad walk, excavated into the side of a hill, and sloping all one way, could be adapted to a structure

nearly similar to that described, or the ground may be dug out in the form of an amphitheatre, to suit the taste or circumstances. But whatever the form of rockery adopted, let the situation be away from the influence of trees, beyond suspicion of the reach of their roots below, or their drip, or even their shade, above. Trees which only shelter from high winds are so far serviceable, and so are walls and high banks. There are few alpiners for which a storm-swept surface is good, but trees are objectionable where they lessen light, which is an important element in the welfare of most mountain plants. The shade and shelter afforded by the stones and form of the structure itself are the best kind of shade and shelter.

#### SOIL.

We now come to the subject of soil, which is very important, though I attach less importance to it than others do who have written on the subject. I hold that where atmospheric and mechanical conditions are favourable, the chemical combination of the soil is of secondary consideration. It is true that in Nature we find that the flora of a limestone mountain differs in many particulars from that of a granite mountain, and on the same mountain some plants will thrive in heavy retentive soil, whilst others will be found exclusively in peat or sand. But for one who is beginning to cultivate alpiners to have to divide them into lime-lovers and lime-haters, lovers of sand and lovers of stiff soil, is an unnecessary aggravation of difficulties. So large a proportion of ornamental plants is contented with the soil which most cultivators provide for all alike—even though in Nature they seem to have predilections—that where an amateur has only one rockery it would be too perplexing to study the partiality of every plant and to remember every spot where lime-lovers or their opposites had been growing. While saying this, I confess that I have some rockeries where both soil and rock are adapted exclusively for lime plants; others from which lime is kept away, and where both soil and rock are granitic; but the great majority of plants thrive equally well on both. I know few better collections of alpine plants than one

which I recently saw at Guildford, growing on a bank of almost pure chalk. I cannot say that I noticed any inveterate lime-haters there; but conditions of drainage and atmosphere were the chief cause of success. With regard to soil, then, we must take care that it does not retain stagnant moisture, and yet it must not dry up too readily. Plants must be able to penetrate it easily with their roots, the lengths of some of which must be seen to be believed. Good loam, with a little humus in the form of leaf-mould or peat, and half or three-quarters of the bulk composed of stone riddings from the nearest stone quarry, and varying in size from that of Rapeseed to that of horse Beans, make up a soil with which most alpiners are quite contented. The red alluvial clay of Cheshire, burnt hard in a kiln, and broken up or riddled to the above size, is an excellent material, mixed with a little soil and a little hard stone. Where you are convinced that lime is useful, it may be added as pure lime, not planting in it till thoroughly slaked by mixture with the soil. Rough surface-dressing is a thing in which all alpiners delight, as it keeps the top of the soil sweet and moist and prevents their leaves being fouled. Use for this purpose the same riddled stone as described above, which is better than gravel, as round pebbles are easily washed off the slope by rain or in watering.

#### PLANTING ROCKERIES.

Having now constructed our rockeries, we must next furnish them, and it must not be forgotten that they are to be furnished with alpiners. It is better not to be in a hurry to see the stones covered. It would be easy to cover them with growth in a single season, but it would be demoralising to the cultivator. We must not degrade choice alpiners by putting them to keep company with Periwinkles, Woodruff, large St. John's Wort, dead Nettles, Creeping Jenny, fast-running Sedums, and Saxifrages, which do duty for alpiners on raised structures of roots or stones in the shady, neglected corners of many a garden. Some of these things are very pretty, and desirable in their way; but growing these cannot be called the cultivation of alpine plants, and such

subjects as I have mentioned must be carefully kept off the alpine rockery. Indeed, there are some plants, of which *Coronilla varia* is one, which, when once established amongst large stones, cannot be eradicated by any means short of pulling the whole structure to pieces. Any plant which runs under a large stone and reappears on the other side should be treated with caution. As a rule, nothing should be planted which cannot be easily and entirely eradicated in a few minutes. If a rockery is large, there is no reason for limiting the area to be assigned to each plant, especially to such as are ornamental when in flower and not unsightly at other seasons. If different rockeries, or separate parts of the same, can be assigned to rapid growers and to dwarf compact plants, it will be an advantage. There are many subjects which belong to the class of alpiners which require to be displayed in a broad and high mass to do them full justice. Such things should make a train from the top of the rockery quite to the ground; *Aubrietias*, for example, and *Veronica prostrata* should look like purple or blue cataracts; others should be unlimited in breadth, like the dwarf, mossy *Phloxes* and the brilliantly coloured *Helianthemums*. Such things do not like being cropped round to limit their growth, and if there is not enough room for them they had better be omitted from the rockery, though in stiff and cold soils they will not thrive in the mixed border. Whatever is grown, the small and delicate gems of the collection must run no danger of being smothered by overwhelming neighbours, and this requires both careful arrangement and constant watching.

(To be continued.)

## THE FLOWER GARDEN.

### THE CLEMATIS.

**A** POPULAR spring and summer-flowering plant the Clematis will always be. The great beauty as well as the freedom of bloom of the spring-flowering varieties was abundantly illustrated by the two splendid groups put up by Messrs. Jackman and Son of Woking and Messrs. R. Smith and Co. of Worcester at the Temple show. That of the former had the greatest variety, that of the latter the largest specimens; but both were of a very interesting and instructive character. The range of colours—many of them of the most delicate beauty, the shape of the blossoms, and the many decorative uses to which the Clematis can be put will always make it a great favourite in the garden. The production of plants of the Clematis is really a great industry. Plants of named varieties are propagated by grafting on to the roots of a common sort, generally of *C. Vitalba*, the well-known Traveller's Joy, and sometimes on those of *C. Flammula*. The seeds are gathered, dried, and sown. Seeds of *C. Vitalba* can be gathered in plenty on the road-sides where they abound; they are laid out on mats to dry, are then rubbed out, and sown in pots in spring. They soon germinate, and in a year the roots are strong enough to be grafted. Grafting is deftly done by one accustomed to the work, and usually in the month of March the grafted roots are then potted, placed in a brisk bottom-heat, adhesion ensues—though, of course, there are some failures, and by the month of June it is possible to have plants 4 feet in length and fit for sale. Those who do not trouble to sow seeds can purchase those of *C. Vitalba*, *C. Flammula*, and others from the German seedsmen, some of whom make a point of harvesting them for English cultivators.

It is a matter for regret that in some nursery-men's catalogues the spring-flowering and summer-flowering varieties are mixed up together, because there is considerable distinction between them in



A FIELD OF SHASTA DAISIES IN THE GROUNDS OF MR. LUTHER BURBANK, CALIFORNIA.

their method of flowering. The spring-flowering varieties bloom upon the ripened wood of the previous year, consequently they need to be pruned in a manner which will secure bloom; therefore the old wood which had bloomed the previous season should be cut away in autumn, leaving the shoots made by the plant in the summer following the bloom. It is these which produce bloom. Some of the choicest varieties of the spring-flowering section are found in Fairy Queen, a prominent variety at the Temple show, pale flesh, with pink bars; King Edward VII., puce violet, with a bar of crimson down the centre of each petal; Marcel Moser, mauve-violet, with red bars; Nellie Moser, pink, with flames of carmine, very charming; Queen Alexandra, a pale lavender and lilac-purple, with a silvery white streak along each petal; and Viticella Ville de Lyon, which is considered the nearest approach to a red Clematis, colour claret-rose.

To the foregoing can be added the following double varieties: Countess of Lovelace, bluish lilac, bearing handsome, full double flowers; Duchess of Edinburgh, white, fully double; Lucie Lemoine, also white, yet quite distinct; and Venus Victrix, delicate lavender-blue, a beautiful variety. With these there may be included Beauty of Worcester, bluish violet, with prominent white stamens, and which produces both single and double blossoms. Into the group of spring and early summer-flowering varieties come also the new hybrids of *C. coccinea*, such as Countess of Onslow, bright violet-purple, with a broad band of scarlet down each petal; Duchess of Albany, bright pink, flushed with lilac; Duchess of York, pale blush-pink; and Grace Darling, bright rosy carmine, all excellent climbers.

The summer and autumn-flowering varieties, which include the lanuginosa section, flower on the young wood of the current year, and so may be pruned back close in autumn if necessary. A few of the finest are Jackmani alba, pure white; Jackmani superba, dark violet-purple, extra fine; Mr. Gladstone, pale lavender, very fine; Mrs. Hope, satiny mauve, with bars of a darker tint; Sensation, rich satiny mauve; and William Kennett, deep lavender, a very fine variety, and one of the latest to bloom.

It should be remembered that Clematises are gross feeders, and when planted plenty of good manure should be worked into the soil deep down, so that the roots may find their way to it. They require plenty of water in hot, dry weather, and a good mulch of manure in summer is of great service. It is a common practice to plant Clematises against the walls of new buildings, and too frequently in unsuitable soil. The new bricks absorb a great deal of the moisture from the surface-soil, and the plants suffer in consequence. For want of proper knowledge some are wrongly pruned, and it is not to be wondered at that there are failures. When signs of debility show themselves it is well to remove a good deal of the unsuitable soil and replace it with a good compost, at the same time taking care not to disturb the roots too much in doing so. R. D.

### THE SHASTA DAISIES.

WHEN one thinks of the number of Marguerites of various kinds that are available for our gardens, one wonders if there is still room for more. Yet it is evident that many of the new flowers raised from *Chrysanthemum maximum* are valuable plants. The forms with lacinated petals are very ornamental and much more graceful than the old stiff ones. The new Shasta Daisies, which so far do not appear to have become very popular in this country, are said to have originated through the intercrossing of the European *Chrysanthemum leucanthemum* and an American species. The resulting hybrids were again crossed with the Japanese *C. nipponicum*, and selection has been



GERANIUM RIVULARE IN THE ROCK GARDEN AT KEW.

assiduously practised. Mr. Luther Burbank's Shasta Daisies certainly remind one somewhat of the graceful *C. nipponicum*, and they have not the stiffness that we are apt to associate with *C. maximum*. The Shasta Daisy has quickly become popular in America. T.

found growing by the sides of mountain streams in the Dauphiny and Alps of North Italy and Switzerland. But, though preferring a rather moist position, it will succeed in a dry one and flower more freely, but will not grow so luxuriantly. It is usually about 2 feet high, and has white flowers 1 inch to 1½ inches across. W. I.

## NOTES ON HARDY PLANTS

### IRIS OBTUSIFOLIA.

**A**LTHOUGH the members of this ornamental genus in cultivation are very numerous and embrace a wide range of form and colour, an addition to their number is always welcome. *I. obtusifolia* was discovered in the year 1895 in the province of Mazanderan, on the south of the Caspian Sea. Its finder, the late Lieutenant-Colonel Wells, describes it as growing beside streams at an elevation of 7,000 feet above sea level. Living plants were received at the Royal Gardens from him in 1897, and were grown in a cool house, where it flowered in April, 1899. It was figured in the *Botanical Magazine*, t. 7701, and Mr. Baker, in describing it as a new species, says that it is allied to *I. lutescens* and *I. Staeliae*, but differs from them both by its laxly arranged, broad obtuse leaves, and by other less obvious botanical differences. The sulphur yellow flowers are borne on stems 12 inches to 18 inches high. After flowering inside it was planted at the foot of a south wall, where, although it grows naturally in moist situations, it rapidly increased, and has flowered freely every spring since. It will probably prove hardy in the open border. W. IRVING.

### GERANIUM RIVULARE.

THIS useful *Geranium* belongs to the stronger-growing section of the Crane's-bill family, and comes into flower in the latter part of April before any of the other members of the genus. It is admirably adapted for the rock garden amongst equally strong-growing plants, producing a profusion of flowers during the month of May. Though an old garden plant it is seldom seen in cultivation, many plants inferior to it in beauty being more extensively grown. It is known also by the name of *G. aconitifolium*, on account of the resemblance of its palmately cut leaves to those of some species of *Aconitum*, and is usually

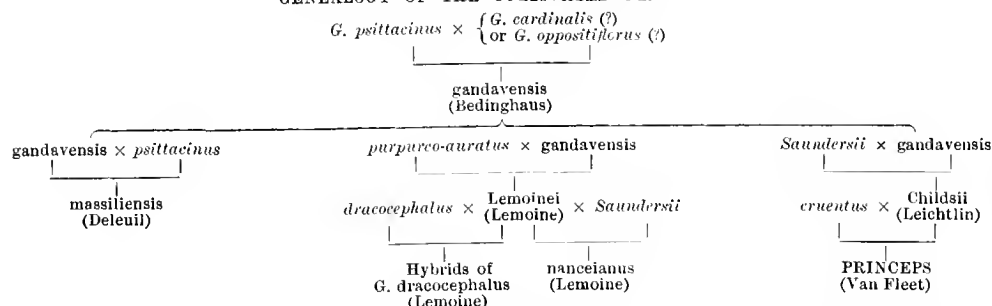
### SILENE VIRGINICA.

ONE of the brightest and most showy plants at present flowering in the rock garden is the Virginian "Fire Pink." Although appropriated by its name to Virginia it is not exclusively confined to that state, but is found in several others growing in open woods on rocky hills. It was first introduced into this country more than a hundred years ago, but, like many other good things, it requires a little care to grow successfully, and so has not become common in gardens. Very liable to suffer from damp in the winter, it likes partial shade and a well-drained position in sandy loam. In such places it produces its flowers freely from June to August. The stems vary in height from 1 foot to 2 feet, are tinged with a red-brown colour, and have two or three pairs of opposite leaves about 4 inches long. The brilliant crimson or scarlet flowers are large and starlike, the larger ones 2 inches in diameter. Each petal is divided at the apex into two lobes about one-third of its length; and these again have each a small one on the outer margin. Like many of the other members of this useful family the whole plant is covered with a viscid pubescence which makes it sticky to the touch. Nearly allied to the above is the "American Wild Pink" (*S. pennsylvanica*), a dwarf-growing perennial about 6 inches high, which flowers at the end of April. These are produced freely in clusters, and vary in colour from rose to white. A native of open woods, where it grows in dry stony places, it suffers from damp in winter in the border, and requires a similar position to that of the above species. W. I.

### GLADIOLUS PRINCEPS.

GLADIOLUS PRINCEPS is the latest acquisition among garden hybrids of this genus. Four species have helped in its production, as may be seen from the annexed genealogical table. It appears to us to be of interest to trace also at the same time the genealogy of our cultivated Gladioli, concerning the origin of which M. Krelage published an account in 1897.

## GENEALOGY OF THE CULTIVATED GLADIOLI.



The names in italics are those of species; those in Roman characters are hybrids. After each hybrid the name of the raiser is given.

Although the genus *Gladiolus* is one of those concerning which we have much information, yet some doubt still exists as to the origin of certain hybrids. In the first place the parentage of *G. gandavensis* is not clearly established. Van Houtte exhibited it in 1841 as a hybrid between *G. psittacinus* and *G. cardinalis*, and certainly he is an authority to be considered. Nevertheless, according to the article by M. Krelage, which we have mentioned, M. Herbert, for two reasons, has expressed a doubt in the matter. The first reason is that numerous crossings made in this direction were without result; the second, that M. Herbert, on the other hand, having crossed *G. psittacinus* with *G. oppositiflorus*, obtained a plant exactly similar to that figured in "La Flore des Serres et des Jardins," as *G. gandavensis*. In the light of this contradiction, and of the different opinions of two such competent horticulturists, doubt may well be permitted, and it is for this reason that we have in our genealogic table indicated *G. gandavensis* as the result of *G. psittacinus* fertilised by *G. cardinalis* (?) or by *G. oppositiflorus* (?). It would be very interesting definitely to elucidate this.

Again, a very interesting article, attributed to M. Bellair, on the origin of the *Gladioli* contains a small inaccuracy concerning *G. Childsii*, and which, supported by the authority of M. Max Leichtlin—the producer of this hybrid—I take the liberty of bringing to notice. *G. Childsii* is the product of *G. Saundersii* × *G. gandavensis*, and not of *G. nanceianus* × *G. gandavensis* as M. Bellair asserts, which is as good as saying that *G. Childsii* is more directly the issue of *G. Saundersii* than M. Bellair thought. This correction has its importance from the point of view of the genealogy of *G. princeps*. Here, again, is an interesting note. M. Krelage gives *G. turicensis* (obtained by M. Froebel) as identical with *G. Childsii* of M. Max Leichtlin. Now, according to the information which I have gathered, *G. Childsii* is a hybrid between *G. gandavensis* and *G. Saundersii*. If, therefore, the order in which M. Krelage gives the parents of *G. turicensis* is exact (*G. gandavensis* × *G. Saundersii*), these two *Gladioli* are the issue of the same parents, but by crossings operated in inverse order. In any case it is *G. Childsii*, and not *G. turicensis*, which has helped to produce this beautiful novelty of large size and brilliant colouring.

The honour of producing this hybrid belongs to an American—Dr. Van Fleet of Little-Silver. It is now more than twenty-five years ago since *Gladiolus cruentus*, originally from South Africa, was sent to Mr. William Bull by a Swiss living in the Drakensberg in Natal, when it was figured in the *Botanical Magazine*. But the specimens sent did badly, and M. Max Leichtlin (from whom I obtained these details), who was the only one to have the plant in its full beauty, gave it to Dr. Van Fleet. The latter, under the propitious climate of North America, obtained excellent results with it, and crossed it with *G. Childsii*. I am sure he himself must have been astonished at the result. The hybrid *Gladiolus*, to which he has given the very appropriate name of *princeps*, is remarkable for the rich scarlet-red of its flowers, by their size, and by their beautiful form surpassing any with which we are at present acquainted. The petals are very large, and their bright colouring is intensified by slight white spots, often accompanied by a median line of the same colour

on the inferior and lateral divisions. These latter are larger and not so spreading as in *G. nanceianus*.

*Gladiolus princeps* does not bloom until August and September, in this respect resembling *G. cruentus*, that is to say it is at its best, when other



PINUS CEMBRA—STORM BEATEN.

*Gladioli* are almost or entirely passed. This is another point in its favour. On the other hand, its flowering is continuous, and it never has more than three or four blossoms open at the same time. But what does it matter if quality compensates for quantity. It is, unfortunately, an inexorable law of Nature that the size of flowers shall be in inverse ratio to their number. From the decorative point of view the effect is almost the same, and when the blooms are cut the advantage rests with *G. princeps*. The variety here represented (in a coloured plate), a new and typical one, so far stands alone in this series. M. Max Leichtlin, that indefatigable worker, has tried many crosses, but red continues to predominate in the seedlings, and will not go beyond orange-tinted scarlet in the scale of clear colours. We need not, however, despair, and I shall be much surprised if a few years hence we have not new colours in *G. princeps*. —PH. DE VILMORIN, in *La Revue Horticole*.

## SEDUM STAHLII.

"WHAT!" some will say, "another *Sedum*? As if there were not enough of them already!" The mountainous regions of Europe and Asia have furnished a great many species, but America appears to be but scantily represented. *Sedum Stahlii* presents this peculiarity—that it is of American origin, for it is a native of Mexico, where it was discovered by M. Stahl of Yena, whose name it recalls, and to whom it was dedicated by Comte de Solms-Laubach. It is a perennial, with numerous slender branching stems, some sterile and more or less trailing, others flower-bearing and upright, at first covered with fine down, and from 10 centimètres to 15 centimètres high. The leaves are opposite, sessile, very thick and fleshy, ovate, often reddish and as it were rusted, and are very easily detached from the stem. The flowers, which are of a beautiful yellow colour, are disposed in terminal cymes; they are very shortly stalked; the petals are lanceolate and spreading, and twice as long as the sepals. *Sedum Stahlii* will prove an attraction to lovers of this genus. Its peculiar foliage will scarcely allow it to be confused with other species, and the rapidity of its growth, in spite of the short time since its introduction to cultivation, appears to leave nothing to be desired.—*Le Jardin*.

## HESPEROCHIRON CALIFORNICUM.

THOUGH distinctly attractive with its profusion of Tobacco-like flowers, and introduced as long ago as the beginning of last century, when it was figured in the *Botanical Register* under the name of *Nicotiana nana* from a plant which flowered in the garden of the Royal Horticultural Society in the year 1824, this pretty little plant is not often met with outside botanical collections. Of very limited dimensions, the genus consists of only two species, both natives of Western North America. Belonging to the natural order Hydrophyllaceae, which includes such well known and popular annuals as the *Phacelias* and *Nemophilas*, this genus is placed by Gray in the "Flora of North America" in affinity with the pretty little *Romanzoffia sitchensis*, which it resembles in its individual flowers, although many times larger, but the habit of which is totally different. *H. californicum* is a dwarf stemless perennial, with a rosette of entire spathulate or oblong leaves crowning the rootstock, from among the axils of which are produced the flowers in May, mostly from six to twelve on each plant, but in well-grown specimens reaching the number of twenty. These are borne singly on naked peduncles about 3½ inches long, shorter or of the same length as the leaves. Purplish or sometimes white in colour, each flower is nearly 1 inch in diameter, the segments often having lines on them of a darker colour. It is a native of the hills and meadows of the Sierra Nevada, and is quite hardy in rather sheltered, dry positions, but is seen at its best when grown in a cold frame. The other species, *H. pumilum*, which is found in springy and marshy ground on mountains from Idaho to Oregon, is a smaller plant with fewer shorter leaves and white flowers, veined with violet, and with a yellow base. This plant I have not seen in a living state. W. I.



## THE LILIES.

(Continued from page 412.)

**LILIAM MAXIMOWICZII** (Hort.), the slender Tiger Lily.—A Lily of the tigrinum set, and flowering in English gardens in September. There are two forms, probably two distinct species, that are grown under this name, and these we propose to separate for garden purposes. One exactly resembles *Leichtlinii* in growth, stature, and size of flower, and this we regard as the true *Maximowiczii*; the other more resembles *L. tigrinum*, but it is smaller and more refined, and it flowers three weeks later than the true *Maximowiczii*, and for this we reserve *Carrière's* name, *L. pseudo-tigrinum*, which see. Bulbs flattened, like a small *tigrinum*, white, and scarcely larger than a Walnut. Stems 2 feet high, proceeding at right angles, with the bulbs 6 inches to 10 inches along the surface before appearing, forming two to six bulbils on the covered portions, freely rooting below, slightly woolly above, slender. Leaves narrowly lance-shaped, flaccid, woolly when young. Flowers three to five on long nodding foot-stalks, slightly woolly externally, 4 inches across the expanded flower, the petals much reflexing, light orange-red in colour, and spotted with black inside. An exact counterpart of *L. Leichtlinii* except in colour. Common in cultivation. Flowers in late August. Unknown as a wilding. Likely to be a hybrid between one of the *tigrinum* forms and *Leichtlinii*.

**CULTURE AND USES.**—This Lily may be well grown in any light sandy loam, and is best in gardens of high elevation. In low-lying situations, and particularly by the waterside, it suffers from late spring frosts. Its slender growth is not strong enough for the border, and we would advise as suitable places for it the higher parts of rockeries and beds of Azaleas and other American plants not too dense in their leafage. The roots must be shaded with some low-growing herb to keep them active throughout the growing season. The plant requires the fullest exposure to warm sunshine, but gets checked when the soil is very dry. They do not thrive so well in clay and heavy soils, the bulbs decaying wholesale if very wet. If desirable, this Lily may be grown in pots, but for this purpose *tigrinum* splendens is preferable. Planting should be done before winter, but if its cultivation is attempted in heavy soils it is better to defer planting until spring.

***L. monadelphum*** (Bieb.), the citron yellow, bell-flowered Lily.—A fine but variable Lily, which until recently was not separated from its more popular form var. *szovitzianum* (or *colchicum*). The two plants are quite distinct. Bulbs conical, composed of a multitude of white, awl-like, closely clasping scales. The roots stout, deeply descending. Stems 3 feet to 4 feet high, stout, green, basal roots few or absent. Leaves lance-shaped, hairy on the under surface, 5 inches to 6 inches long, narrowest above, thickly scattered below. Flowers in an elegant spike of six to twenty, drooping, bell-shaped, the tips reflexing, colour a pale citron yellow, quite unspotted, each 4 inches to 5 inches across. The filaments are joined together to form a tube in the lower third, and the anthers are pale yellow. This plant may be easily distinguished from its variety by its white bulbs, citron yellow flowers, monadelphous filaments, and the yellow anthers. Further, this plant shows the flower-buds as it pierces the ground. Those of *szovitzianum* do not appear till the

stems are 2 feet to 3 feet high. Common in cultivation. Flowers in June. It grows in the Caucasian Mountains and Northern Persia in heavy loam.

**Var. *szovitzianum*** (Hort.), the crimson-anthered Lily.—This is widely known in gardens as *L. colchicum*, and is one of the finest of garden Lilies. It is very hardy, easily increased, and the individual bulbs last long. The magnificent spikes are often 5 feet to 6 feet high, and support thirty to forty rich yellow balls of pretty shape. They are scarcely excelled by the finest products of Japan. Bulbs conical, straw yellow, the scales narrowly lance-shaped, the roots stout, descending deeply. Specimens vary in size from a hen's egg to a Coconut. Stems 4 feet to 6 feet high, green, very stout, basal roots few. Leaves broadly lance-shaped, slightly recurving, rough on the under surface, 4 inches to 6 inches long. Flowers ten to forty, in a long, tapering spike, pendulous, pale yellow, and minutely dotted on the petal margins internally, tinted chocolate low down externally, and measuring 5 inches across the expanded mouth. The filaments are free to the base, and the anthers are crimson tinted. Common in cultivation. Flowers late in June. Grows intermingled with the type plant, but is often found in isolated patches.

**CULTURE AND USES.**—In this group we have a Lily of great charm for border planting, perhaps the best for this purpose. It prefers a well-tilled loam of considerable depth, rather heavy than otherwise, and the bulbs must be planted directly the flower-stems wither. It is equally important, if collected bulbs are being planted, that every particle of decaying tissue be removed before planting. It is unnecessary to associate this Lily with other plants, for they make no stem roots, and the roots of the bulbs when fully developed penetrate to a considerable depth. Moisture they must have in some quantity, hence hungry soils should be avoided, and they should be planted at some distance from fences, perennial Sunflowers, and other robbers of moisture. Their first year's growth will be disappointing, and may not exceed 6 inches in height, but with a full year in which to re-establish themselves their growth may be 6 feet in height, and the inflorescences contain at least twelve flowers, but they require at least three years from removal to reach their greatest stature, then they will be magnificent. The type grows well the first year, but does badly afterwards, and never becomes so fine as *szovitzianum*. Planters will be able to distinguish it by the many scaled bulbs of a silvery white. Pot culture is unsatisfactory.

***L. neilgherrense*** (Wight), the Neilgherry Lily.—A lovely Lily of the longiflorum type, requiring a greenhouse for its proper development. Bulbs yellowish, tipped brown on the outer scales, globose, 7 inches in circumference, and producing stout, permanent roots, which indicate a rocky habitat. Stems 2 feet to 3 feet high, dark green, bronze tinted below, often travelling 1 foot to 2 feet below the surface before appearing, and bearing several bulbils on the covered portion, occasionally disappearing for a whole year, when bulbils only are produced. Leaves lance-shaped, 4 inches to 5 inches long, ascending. Flowers one to three, funnel-shaped, 6 inches to 8 inches long, more slender than in *longiflorum*, pale buff low down the tube and shading through cream to white at the tips; the upper third of each petal expands suddenly as in *Nicotiana*, sweetly scented. Flowers in August and September. Rare in cultivation. It grows in cool regions of the Neilgherry Mountains.

**CULTURE AND USES.**—It is scarcely possible to grow this Lily in the open air, except in high and warm gardens, and even then it is doubtful if it could be permanently established. It succeeds well in a cool house if not forced at any time and allowed to grow at will, and better in a border than in pots, for the roots go down deeply. It requires a root-run of pasture loam, with which leaf-soil and weathered rubble has been mixed, and drainage. It is somewhat erratic in its season of growth, hence we consider the protection of a greenhouse necessary. (To be continued.)

## TREES AND SHRUBS.

## PINUS CEMBRA.

**S**TRONG and steadfast, the Arolla pine carries itself erect; aloft upon the summits of sheer rock masses, and upon the very edges of dusky precipices. On the serene heights of our Alps it bears itself in masterly fashion, personifying, on the threshold of the great domain of ice, the struggle of life with death—the triumph of fruitful strength springing from aridity. Moreover, it is a beautiful thing, protesting by its presence against the emptiness of the dreary void—a tree well loved by alpine climbers, and still more by artists and all who take pleasure in forms of picturesque beauty. Alone and isolated, at the last limit of the zone of arborescent vegetation, the Arolla revels in the pure blue sky and the powerful alpine sun. It is a thing of ancient race, a veteran bronzed by age. When thus isolated, it assumes highly picturesque forms, but when it grows in a forest, surrounded by others of its kind, sheltered from violent wind-storms and excess of cold, and, as it were, remaining in the ranks, it is nothing but a private soldier. But even there it may be taken as a symbol of strength and determination, standing tall and upright in its noble stature.

The Arolla is an Asiatic tree brought to us during the glacial epoch that reigned throughout Europe for hundreds of millions of years. Its place of origin is probably North-Eastern Siberia, where it is quite at home, forming immense forests, and reproducing itself freely. This it no longer does upon our Alps. It has this special character, that it is the only European species belonging to the Quinae group, whose leaf is formed of five needles within one sheath. This section of the genus *Pinus*, so rich in species, comprises about twenty-five species, all belonging to North America, Central Asia (Himalaya), and Eastern Asia. It was Japan, Korea, and the territory adjoining Behring's Strait that formed the bridge of ancient land by which many species, both animal and vegetable, including man himself, transmigrated, and passed from the one continent to the other. For it has now been proved that the Indians of the American Continent were originally Scythians from the high Asiatic plateaux, and that they passed by an isthmus formerly existing where now is Behring's Strait. This appears to have been the geographical centre of this group.

*Pinus Cembra*, which may be called the Cedar of our Alps, rises to an altitude of 6,000 feet, forming forests here and there between 4,000 feet and 5,500 feet. There is generally a mixture of Larch in these forests, but there are also places where there are stretches of rather large extent of Arolla alone. During the last forty years the Swiss Federal Government has made extensive plantations of *Pinus Cembra* with the Larch at high altitudes, thus reforesting extensive tracts of what were formerly bare and arid slopes. We have planted some Arollas at the garden of La Rambertia, at the summit of the Rochers de Naye (6,000 feet), where they are doing admirably. At our garden of La Linoë (5,200 feet) the hundred samples planted in 1879 as young seedlings are now handsome young trees, 4 feet to 5 feet high, and very prosperous. Mrs. Tyndall, the widow of the illustrious English scientist, has planted three hectares of ground with

Arollas near the Belalp, a plantation which promises in a few years to become a beautiful piece of forest. It is on land that was anciently thickly wooded, but that has been bare for a century. The finest Arollas are in the Engadine, where M. Müller, proprietor of the Hôtel du Jullier, at Campfer, has found a variety—*viridis*—with a green cone and a different habit to the type. There are wonderful forests of Arolla in the high Engadine, only to be matched by those in the Vallée d'Arolla in Valais—the valley taking its name from the *Pinus Cembra*. Near Arolla, close to the glaciers, in the grandest alpine amphitheatre that can be conceived, there still remain some veterans that have assumed remarkable forms, through whose branches is seen the glistening blue of the glaciers of the most sublime mountains. While speaking of the Arolla, I may well mention that the proprietor of the hotel, M. J. Anzevin, last year established an alpine garden close to the hotel, which he puts at the disposal of visitors. At this altitude (6,000 feet) some good results may be expected, M. Anzevin having planted species from all the mountains of the world.

One may still see fine forests of Arolla in the little valley of Grüben (Turtmannthal), and near Zermatt, where, however, they seem to be robbed of their character by the incongruous presence of railways, bandstands, newspaper kiosks, and such-like attributes of urban civilisation. They should be seen in the high alpine landscape, at the foot of, and even on, the moraines of the sparkling glaciers, for there it is that they convey the strongest impression of grandeur and nobility. There they seem to be sentient creatures, each with its own individual character and physiognomy. Examine six, twenty, thirty, each one is different, each has its own form and outline. In their fight for life these veterans become twisted and contorted by violent shocks of wind. They are beaten down and then again rise upright, struggling in every direction, and assuming every kind of strange and fantastic form. It is a tree that succeeds perfectly in parks and gardens, where it is handsome and well-behaved, docile, and obedient in captivity. In the gardens of Floraire it grows straight and upright, with its full complement of branches regularly disposed. Its bluish tint contrasts with other conifers, and it retains its candelabra form. It likes a deep, cool soil, not too hot a place, and frequent watering when in a young state.

Geneva. HENRY CORREYON.

#### DAPHNE CNEORUM.

THE great measure of success attending the culture of this *Daphne* at Kew, and alluded to on page 366, is, I believe, brought about by an admixture of limestone with the soil in which it is growing. Such a result is well worth knowing, for there can be no question as to its success at Kew, where its culture has not always proved satisfactory. Hence I was much struck to see it doing so well on the rockwork there. A fair amount of moisture at the roots, combined at the same time with effective drainage, is also necessary. T.

#### SPIRÆA BRACTEATA.

MOST of the shrubby *Spiræas* are very ornamental and worthy of inclusion in all gardens, and they have also the merit of possessing a long flowering period, for, from the time that *S. Thunbergii* commences to bloom in February until the last flowers of *S. japonica* and *S. mongolica* are over in November, one or more may be found in bloom. *S. bracteata* flowers in June. It is a

Japanese species and forms an irregular shaped bush, 5 feet or more high, with wiry looking branches and small, rounded leaves, which are glaucous on the under surface. The flowers are small and white, and are borne in dense terminal corymbs from small shoots springing from last year's wood. The corymbs are freely produced, the plants during June being a mass of white. For shrubbery or bed it is equally valuable, and worthy the attention of all shrub lovers. W. D.

#### XANTHOCERAS SORBIFOLIA.

SINCE writing my first note on this Chinese shrub, I have seen it at Kew finer than I ever remember meeting with it there before. The backward state of the present season has doubtless had a good deal to do with this, as the tender leaves and flowers were kept back till the spring frosts had passed away. At all events, several specimens standing quite in the open have flowered profusely. Where numbers are grown together and under similar conditions, it may often be noticed that the reddish marking at the base of the petals is in some individuals less pronounced than others. The south-west of the country, from where your correspondent "S. W. F." writes, page 369, is so favourable for tender plants that many subjects which thrive there cut a sorry figure even in the neighbourhood of London. H. P.

#### POTENTILLA FRUTICOSA.

THE genus *Potentilla* is represented a great deal more largely in the herbaceous border than in the shrubbery, yet there are a few which are by no means to be despised as flowering shrubs. Of these shrubby species, *P. fruticosa* is the best, and is worth growing on account of its late flowering. Coming into blossom, as it does, in June, and continuing for over two months in good condition, it is at its best when flowering shrubs are few in

number, and so it is doubly welcome. In some parts of Britain it is found wild, notably in Yorkshire, Durham, Westmorland, and Galway. It is, moreover, very widely distributed, and is found in many parts of the Northern Hemisphere. It makes a dense bush 2 feet to 3 feet high, with pinnate leaves, usually composed of five leaflets, which are thickly covered on the under surface with soft, silky hairs. The flowers are an inch or more across, deep yellow in colour, and are freely produced. As regards its behaviour, very little trouble is given, for, once planted in good loamy soil, it may be depended upon to keep growing and to give little or no trouble for a considerable time. Seeds germinate readily, and a stock of plants may quickly be raised. For the front of a shrubbery it is an excellent subject, while it may also be used for a bed on the outskirts of a lawn. W. D.

## THE ROSE GARDEN.

### NEW AND INTERESTING ROSES AT THE TEMPLE SHOW.

IT is agreed on all hands that the recent exhibition at the Temple Gardens was one of the best the society has ever held there. The many valuable novelties brought before the public on such an occasion have, or will be, without doubt, noticed in the pages of THE GARDEN, and I thought, in view of the near approach of the budding season, that the meritorious novelties in Roses exhibited on this occasion could be best dealt with in a separate article.

It used to be a reproach that it was unsafe to commend Roses grown under glass, as they might not succeed so well outdoors in this country, but the lateness of the exhibition, the conditions of cultivation, and the abundance of air given deprive the plants to a great extent of the term "forced Roses."

One always looks for something new in the Waltham Cross group, and this year this splendid collection, which gained for Messrs. William Paul and Son such high distinction as the premier gold cup, contained many beautiful novelties. Perhaps the Rose which rosarians were chiefly on the look out for was

*Etoile de France*, and Messrs. Paul were enabled to exhibit a basket of plants which gave one a good idea as to its merits. That it will not supersede *Liberty* as a forcing Rose is quite clear, for the variety has not the beautiful form of this lovely crimson sort, but it is also certain that for outdoor growth *Etoile de France* will surpass any red Rose in cultivation for bedding. It is of vigorous growth, such as one would expect from its parent, on the one side *Mme. Abel Chatenay*, and the pollen parent *Fisher Holmes* has given the rich colour we so much required in the Hybrid Teas. It is strange that two such beautifully formed Roses as the last named should fail to produce a variety of equally good form, but we must be thankful for the glorious colour and the free blossoming habit of *Etoile de France*, which will supply a long-felt want in a good crimson of good quality of blossom, at once useful as a garden Rose and at the same time suitable for cutting with long stems for decorations.

*Waltham Rambler* was shown in splendid form, the fine trusses of delicate pink flowers being a great attraction. A new perpetual flowering white Rambler,

*Perle des Neiges*, which received an award of merit, was also seen in good condition, and apparently



PINUS CEMBRA.

we have in this Rose a very useful addition to a beautiful class, for if Ramblers can be produced that will flower twice in the year our arches and pillars will not look so forlorn in autumn as hitherto. Probably no Rose has made such a host of friends in so short a time as Dorothy Perkins, and now we find she is to be superseded by

*Lady Gay*.—The colour is delightful, being a deeper shade of carnation pink. One was unable to judge from the basket of cut sprays whether *Lady Gay* is as free in flowering as Dorothy Perkins, but if so it must prove a valuable addition. If *Lady Gay* is a deeper coloured Dorothy Perkins, then

*Debutante* is a paler form. This last is a lovely shade of soft pink. It is a variety which blooms also in autumn.

*Earl of Warwick* is a very promising Hybrid Tea of a very beautiful colour, salmon and flesh pink being the prevailing tints, and I understand it grows as freely as Viscountess Folkestone and similar varieties. One of the Roses which attracted the attention of visitors most was

*Boadicea*.—This was shown in grand form, and those who can grow Tea Roses to perfection will do well to add it to their collection, for it promises to be as valuable as a show Rose as Messrs. Paul's *Medea*.

*Prince de Bulgarie* is one of the best of the newer Hybrid Teas. It is quite distinct, the colour being silvery flesh with salmon and orange shading. Growth excellent.

*Furbenkoinigin* is a glorious colour, which may be described as a reddish La France. It is very fragrant.

*Pharisæer*, if I mistake not, will be a very popular Rose. Its huge, deep petalled blossoms are of a pleasing fawn tint, shading to white, buds very handsome, and growth vigorous. It is a thin Rose, but, like Killarney, the petals keep their form for a considerable time.

*Frau Karl Druschki* attracted much notice, and no more beautiful Rose has appeared for some years. The pillar plant in the Waltham Cross group demonstrated its fitness for such a mode of training. The glorious headed standards of

*Souvenir de Pierre Notting* in Mr. C. Turner's fine group were a great attraction. I am afraid this Rose is very impatient of damp, but it is, nevertheless, a valuable addition to our yellow Roses.

*David Harum*, which comes from America, promises well. Unfortunately, our collection is teeming with pink Roses already, but there appears a distinct shade about this novelty which may prove useful. This was shown in the group from Messrs. Paul and Son of Cheshunt. So also was

*Snowdon*, which will be a useful Rose if it is what it appears to be, a white Mrs. Paul.

*Rugosa repens alba* and *Rosa sinica Anemone* are two gems, worthy additions to our single Roses. P.

RAMBLING ROSES AT KEW.

FROM early May until the end of the first week in June Rhododendrons and Azaleas eclipse most other flowering shrubs, but after early June they are surpassed by the Roses, which hold first place among flowering shrubs until the end of July. At Kew the Roses are to be found in many different places, the garden varieties of Teas and Hybrid Perpetuals being grown in beds near the Palm house, most of the species in a long bed near the Pagoda, while the rambling varieties and the more showy species are in the Rose garden near the Pagoda, on a pergola between the herbaceous ground and rockery, and in beds and masses in various parts of the gardens. At the present time—early June—the latter are most generally interesting, and anyone visiting Kew should make a point of seeing the numerous varieties now in

flower. The Rose garden near the Pagoda is arranged in a series of bays and terraces, each bay and terrace being filled with one variety. Of the numerous sorts the following are some of the most noticeable.

Entering from the end near the Pagoda an interesting group of hybrids of *Rosa rugosa* may be noticed. These are a dozen or so in number, and the following are the most striking: *Souv. de Pierre Leperdrieux*, dark red, double; *Chedane Guinoisseau*, double, rose; *Mme. Georges Bruant*, double, white; and *Blanc de Coubert*, double, white.

A little further on several bays are filled with *R. spinosissima* and its varieties, large groups being formed of *R. s. var. altaica*, which has large single white flowers; *R. s. var. lutea*, with deep yellow blossoms; and *R. s. var. hispida*, with yellow flowers of a paler hue. Other Scotch Roses

and *Flora*. Other varieties to be seen are *Psyche*, *Dorothy Perkins*, *Queen Alexandra*, *Electra*, *Una*, *Eleanor Berkeley*, *Alberic Barbier*, *Auguste Barbier*, *Paul Trauson*, and others, while here and there *White Pet*, which has formed very large plants, provides a welcome relief to the red varieties.

There are numerous other sorts on the pergola near the rockery, while beds of the following near the temperate house and greenhouse are very attractive: *Royal Scarlet*, *Una*, *Electra*, *Morletti*, *Mrs. A. Waterer*, *noisettiana*, *multiflora*, *Blanc de Coubert*, &c. Near the *Syon Vista* at the end of the lake a large mass of *rugosa* forms is showy and interesting, while there are fine old specimens of *R. moschata* near the ferneries and *Isleworth Gate* and of the double *Ayrshire Rose* in various places. The Rose dell at Kew is one of the most instructive spots in early summer, as the various sorts are planted in a way to show them to the best advantage. One can learn much here. W. D.



AN ARTIST'S NOTE-BOOK.

ODONTIODA VUYLSTEKEAE.

ORCHID lovers at the Temple show waxed enthusiastic over this new hybrid exhibited by M.

Vuylsteke, a Belgian grower, and small wonder, for it is to all intents and purposes a red *Odontoglossum*. So far as rich colouring is concerned it surpasses all other varieties of *Odontoglossum crispum*, and the general opinion seems to be that its introduction will tend in time to depreciate the many finely spotted forms of *O. crispum* that have been raised during recent years. Now that the way has been pointed out, it is only reasonable to suppose that other hybridists will also enter this fresh field with its great possibilities, and in a few years' time *Odontiodas* in varying shades of red and orange may be as numerous as finely spotted forms of *Odontoglossum crispum* are to-day; if this should prove to be the case it must follow as a matter of course that the latter will lose the value that now is placed upon them. Hybrids, especially when very closely related to each other, must of necessity have a fictitious value, for one never knows when it will be superseded by something better. Although not a true *Odontoglossum*, M. Vuylsteke's hybrid, so far as general appearance goes, is little different.

It is the result of a cross between *Odontoglossum Pescatorei* and *Cochlioda noeliana*, and is therefore a bigeneric hybrid. The flowers resemble an *Odontoglossum* in the form of sepals and petals, but the lip is deeply lobed in the middle. The lower half of the sepals and petals is red, with perhaps a tinge of orange; around this colouring is a line of white. The upper half of the sepals and petals is rosy purple, the latter colour prevailing most at the edges. The lobed lip is white, tinged with pink, and spotted with red. A. H. P.

THE NEW HYBRID ODONTIODA VUYLSTEKEAE.

(Shown by M. Ch. Vuylsteke, Loochristi, Ghent, at the recent Temple Show.)

represented are *William IV.*, *flore luteo-pleno*, *Double Pink*, &c. Behind these Roses there is an extensive group of the dark red *rugosa* × *General Jacqueminot* hybrid *Mrs. Anthony Waterer*; near by is a charming mass of the *Dawson Rose*, the pretty pink flowers of which are particularly pleasing. As a background to these large specimens of *R. multiflora* make a thick tangled mass, the branches in some instances being intermixed with the other two.

Passing these groups we come to a mass of *Carmine Pillar* growing against a dark green *Holly*. The free-growing shoots of this are smothered with flowers, which are well set off against the dark leaves of the *Holly*. *Crimson Rambler* is represented by a very large group, as also are *Fellenberg*

## GARDENING OF THE WEEK.

## FLOWER GARDEN.

## POLYGONUMS.

FOR the informal garden, where free growth and luxuriant foliage are desired, several species of Polygonum are of value. But with the stronger growers and *P. cuspidatum* especially, which spread very rapidly and will grow in any soil, or even in a hard path, it is necessary to plant them where there is no danger of their encroaching on any more valuable or slower growing subjects. They are very suitable for planting on the banks of a stream or a clump on a lawn. Where the mower will check their spreading propensities they will frequently be effective. *Polygonum cuspidatum* is, perhaps, the best known species; its large, deep green leaves and abundant panicles of feathery flowers are most graceful; but, unfortunately, the perfume from the flowers attracts innumerable flies. Occasionally the flowers are succeeded by scarlet fruits. For furnishing a large dinner-table sprays of this Knot-weed are very useful. *P. sachalinense* is even a stronger grower than the foregoing. In a moist spot it grows fully 12 feet high. Its greenish yellow flowers are produced towards the autumn. *P. amplexicaule* is of quite distinct appearance from the above species. Naturally of a dwarf, compact habit, it requires more liberal treatment when it grows to about 3 feet in height. Its racemes of bright red flowers, which appear towards the end of August, are very striking and last a considerable time. If it were of taller habit, *P. affine* would be equally valuable, for its flowers, which are of similar colour, are more freely produced. This and the creeping *P. vaccinifolium*, which also bears bright rose flowers, are well adapted for planting in the rock garden. The snow white *P. alpinum* is also a useful species.

## ROSES.

In many places the Rose grub is very much in evidence. The affected plants should be carefully looked over and the curled leaves squeezed and removed. The hotter days have also brought increased numbers of green fly, which must be exterminated. Where the plants have broken freely, it is as well to cut off the weak and badly placed shoots, and, if extra large flowers are required, disbudding must be practised. Birds are very busy scratching the mulching into heaps in their search for worms and snails. The mulching must be raked level, and, when necessary, water copiously. The fresh growths on pillar and wall Roses should be tied in; but this must be done lightly or the plants will present a very stiff appearance. When it is necessary to syringe or spray these latter Roses with insecticide this should be done either on dull days or late in the afternoon, after the sun has lost most of its power, or scorching will result. After applying the insecticide it is wise to wash the walls with clear water to prevent any discolouration.

A. C. BARTLETT.

*Pencarrow Gardens, Bodmin.*

## KITCHEN GARDEN.

## BROCCOLI.

This important crop should now be planted. It is essential that the ground for Broccoli should be made very firm, to check strong growth and to have the plants sturdy and dwarf to withstand the winter. A good and open piece of ground should be chosen, and, if the crop is grown in one plot, the varieties should be planted in order, to follow each other thus: At one side of the plot a few rows of Walcheren and Autumn Giant Cauliflower may be planted; follow next with the winter sorts, and finish the plot with those that come in in the month of June. This allows all stumps, &c., to be cleared off as the crop is cut. A good selection of sorts to stand in the northern counties was given in the calendar at the time of sowing. Plants growing in the seed beds should be lifted with a fork to prevent damage to the roots. If the planting is done in showery weather, little attention will be required, except to keep the ground clean. Broccoli

may be planted with every prospect of success for some time yet, and may follow the earliest Peas after they have been cleared off.

## KALE, SAVOYS,

and the later sown Brussels Sprouts should now be got in. The dwarf curled Savoys withstand the winter best, and are better for the kitchen than Drumhead sorts. They may be planted about 20 inches between the rows; but where the large sorts are preferred 2 feet 6 inches will be necessary.

## LATE CABBAGE

should also be got in, Winningstadt being a fine variety. The roots of all Brassicas may be dipped in a mixture of soot, lime, and soil that has been moistened. This enables the plants to withstand the strong sun till they are established, and prevents clubbing at the roots.

## FRENCH BEANS.

As expected, the earliest sowing has come up very thin, and some should be transplanted. Second sowings are sure to do better, and a large sowing for the main supply should be got in at once. Ne Plus Ultra, Negro Long Pod, and Canadian Wonder are all good sorts. Sow in rows 15 inches apart, on a warm, sunny border, not too deeply, thinning the plants to 6 inches apart.

## BROAD BEANS.

The earliest sown plants are growing rapidly, and should be stopped when about 3 feet high, or when a good set of pods has been secured. Second sowings may be earthed up and staked.

## TURNIPS.

The regular sowing of these must be attended to for some time yet; but a sowing of good garden Swedes should be made now. This gives good and useful Turnips through the winter and spring months.

THOMAS HAY.

*Hopetoun House Gardens, N.B.*

## FRUIT GARDEN.

## PINE-APPLES.

IN the month of June more fruits generally turn in than are required for private use. These can be retarded, when about half-coloured, by being removed to a cooler house orinery where ripe Grapes are hanging. The fruits will also be a better colour than if allowed to ripen in a moist atmosphere. Remove any suckers required for stock from the plants prior to their removal to a cooler house. Less moisture will be required for those to ripen their fruits, but they must not be allowed to become so dry as to cause premature ripening. The fruits on succession plants are now developing rapidly, and require plenty of atmospheric moisture and liberal supplies of weak guano water. Examine the plants twice a week at least, and thoroughly water when required. It often happens at this season of the year, after hard firing, that the tan or leaves, whichever the plants are plunged in, becomes too dry near the pipes. This should have a good watering at a temperature of 85°; also sprinkle the surface of the bed in the morning, and again when the house is closed, slightly dewing the plants overhead at closing time, and, freely damping all available spaces, allow the temperature to reach 95°, falling to 75° at 10 p.m. Young plants should be kept steadily moist and encouraged to make sturdy growth by early and free ventilation in bright weather. Very little fire-heat will be necessary, except on cold nights; when the nights are warm a little air should be left on all night.

## PINE-APPLE SUCKERS.

These require similar treatment to succession plants, a little more bottom-heat being required to encourage early root action. As soon as the pots are filled with roots, repot into larger pots. It is better to do this than to allow the plants to be checked, which would, perhaps, cause them to show fruit prematurely later and be useless.

## STRAWBERRIES.

The latest batch of these, grown in cold pits or frames, require plenty of water and free ventilation. The fruits of early varieties grown on warm borders

are now swelling rapidly. Frame lights should be placed over the earliest. If the weather continues dry a good watering should be given. If liquid manure water is given, this must be applied carefully during the time the fruits are on the plants. Where blackbirds and thrushes are numerous nets should be fixed over the beds before the fruits change colour. Later varieties should be well watered and mulched. The layering of early varieties for forcing should be carried out as soon as layers are available. Also layer plants for forming new beds for next season. Different methods are employed for layering. Some prefer layering direct into 5-inch and 6-inch pots, others into 3-inch pots. A great deal depends on the soil and the season; each method has its advantages.

*Impney Gardens, Droitwich.*

F. JORDAN.

## INDOOR GARDEN.

## CLERODENDRON FALLAX.

OF all the Clerodendrons, perhaps this is the most useful, and it is not very difficult to grow. With a systematic method of propagation plants may be had in flower at practically any season of the year. They are most valuable during autumn and early spring. Plants required for flowering during the coming autumn, some of which were raised from seeds sown early in the year, as well as those that were propagated from cuttings struck during March and April, are now making good progress, and while it may be necessary to place them where they will make growth freely, they should be kept short-jointed and sturdy by elevating them near the glass. Sow now a few seeds to produce plants to flower next spring and early summer. Although sowing the seeds singly in small 2½-inch pots is advised, it may better suit the convenience of some to raise them from seeds sown in pans in the ordinary way. In the latter case, care in removing them to single pots is necessary, and on no account give them a high temperature, 55° to 60° during the day being hot enough, with air according to external conditions.

## INDIAN AZALEAS.

Plants that during the early part of the year were forced into flower, and have since been in heat to encourage them to grow well, are now being moved to a cooler house, where they will remain until growth hardens and the flower-buds are well set. Syringing them once or twice a day to keep red spider in check, with ordinary care will not excite them to make a second growth, but will help the flower-buds to develop steadily and firmly, and will assist materially to sustain the plants in a healthy condition. Reduce somewhat the supply of stimulants to the roots of such plants, although no harm will be done by applying a weak dose occasionally of soot water or even liquid manure.

## HERBACEOUS CALCEOLARIAS.

Although in some instances it may have been necessary to sow seeds from which to raise a few early plants, the main sowing of seeds should be made within the next few days. Much trouble is often afforded and partial success only realised by sowing the seeds in pans or pots, that are usually placed in heat to encourage immediate germination of the seeds. The most simple and probably economical method of raising a stock of young plants from seed is to make in any sheltered part of the garden or yard a sand-bed, and on this place the old plants, from which the seeds when ready will fall and will soon germinate. No attention beyond giving water once a day through a fine rose will be necessary until the young seedling plants are large enough to handle, and can be pricked out singly an inch or so apart in pots or boxes.

## TOP-DRESSING LILIUMS.

*Lilium lancifolium*, auratum, and others should now be given a surfacing with good rough loam and dried cow manure. This should not be pressed down too firmly.

*Tranby Croft, Hull.*

J. P. LEADBETTER.

## CHRYSANTHEMUMS.

THE main collection, which is being cultivated for the purpose of producing fine flowers, will now, if

potted as advised in a previous calendar, have become well established in their new pots and soil, and be quite in a fit state to arrange finally in their summer quarters. We are not all in a position to pick and choose a site for these, and many have to cultivate them under extreme difficulties. Nevertheless, it should be borne in mind, as far as possible, that the more open and sunny the place selected, providing it is fairly well sheltered from west and south-west winds, the better will it be for them, whether they are arranged in blocks or grown in long rows by the sides of fairly wide paths.

Personally, I prefer the latter plan, if it can be so managed that these do not interfere with other crops, as the plants are much more readily managed, and light and air can play about them when in single rows much more uninterruptedly. It is of the utmost importance that every provision should be made to secure the plants against any gales we may reasonably expect, as the strain is very great on a fairly long row of well-grown plants. A stout post should be well fixed at each end, and lesser ones at intermediate stations, between several rows of stout tarred cord, which are preferable to wires. Each plant should now be staked so that it will last over the flowering season, the temporary ones should be removed, and the new ones placed in the same holes. Tie fairly loose with broad pieces of bast, and secure each stake, as the work is accomplished, to the trellis. Allow as much room as possible between the plants, and always arrange them on hoards made perfectly level. Remove all side growths, and always be on the alert for any insect pests or fungoid growths which so easily beset them, and take the necessary steps to check them before much serious harm is done. Few plants enjoy a shower bath on hot days more than the Chrysanthemum, and a good syringing at least three or four times a day when the weather is very hot will greatly benefit them. Watering must be done with extreme care. A careless man with a water-pot will never make a successful grower. Never give any till the plant is quite ready for it, and this can only be determined by thoroughly testing it. No safer or more reliable plan than rapping the pots with the knuckles is known to me, and in case of doubt the plant should be weighted by lifting it. Fill up the pots at least twice, and strong vigorous plants three times.

Decorative varieties, such as Pompons, Pompon Anemones, singles, and all those grown for flowering during the winter months should as soon as possible be placed in their flowering pots, using a mixture of the same character as previously advised. Generally speaking, 7-inch and 8-inch pots are the most convenient and amply large enough for any of the above mentioned. Very firm potting should be resorted to, and if the plants are arranged thickly in a sheltered position they soon recoup themselves. Once more the point of the growth may be stopped.

E. BECKETT.

Aldenham House Gardens, Elstree.

## ORCHIDS.

### CYPRIPEDIUM VILLOSUM.

**A**MONG the originally imported Cypripediums, few, if any, have been so much used for hybridising purposes as *C. villosum*. It has been cultivated in British gardens close upon half a century, being introduced by Messrs. Veitch of Chelsea in 1853. Its native habitat is Moulmein, where it grows freely at an altitude of about 4,000 feet. When it is well grown few, if any, of the older species or varieties are more handsome or useful. Its flowers remain in good condition for several weeks after being fully open. Well-flowered plants are most useful for

indoor decoration if care is taken not to put them in rooms where the temperature falls below 50°, and to keep them out of cold draughts. I enclose a photograph of some very fine plants growing in the gardens at Dobroyd Castle, Todmorden, the residence of Mrs. John Fielden. They had an average of twenty-one flowers, and were the best plants I have seen.

Grimston Gardens, Tadcaster. H. J. C.

### WORK FOR THE WEEK.

#### ONCIDIUM AMPLIATUM.

This Orchid, now passing out of flower, should be repotted or given fresh surface material. Use a compost of two-thirds fibrous peat and one-third sphagnum mixed together. Pans are most suitable; they should be made nearly half full of chopped rhizomes. Pot rather firmly, keeping the base of the leading bulb on a level with the rim of the pan, and the compost low enough to allow of a top-dressing of sphagnum, which is very helpful to this Orchid. Plants with many pseudo-bulbs per lead should have some removed, retaining not more than three to each lead. The temperature of the stove Orchid house is the most suitable, watering with great care till the new growth begins. During the late autumn and winter months very little water will be required.

#### ONCIDIUM SPHACELATUM AND O. ALTISSIMUM.

These are well worth growing extensively either for use in the Orchid house or cut for table or other house decoration. They are of easy culture, and well adapted for this purpose. Both are now passing out of flower, and repotting should be done at once, using a compost of one-half fibrous peat, one-quarter leaf-soil, and one-quarter sphagnum, mixed together with some small crocks and coarse sand. Ordinary pots are well adapted for their culture; a few large clean crocks should be first placed round them, nearly half filling the pots with chopped rhizomes. Large plants of *O. sphacelatum* are often found, especially in old collections. Generally the best pseudo-bulbs are those on the outer sides of the plant, the centre being in a more or less decayed state. Such plants should be carefully pulled to pieces, and the back bulbs removed

and potted up either separately or so placed together to form a specimen. I prefer the former plan, and as the plants develop pot them on. When this is carried out—pulling one or two plants apart annually and rejuvenating them, and potting on others that were treated in a like manner previously—the whole stock is kept in a thoroughly healthy and vigorous state. Both these sorts succeed well in the Cattleya house. Newly-potted plants should be carefully watered till the roots have taken a good hold of the fresh compost, then water may be freely given till the short days of winter are again with us. Although we have some *Oncidium*s that give us brighter and more showy flowers, we have none more useful to those who have to send flowers to London during April and May.

#### ONCIDIUM FLEXUOSUM.

This is another charming and useful Orchid, flowering practically at all seasons. Potting may now be safely done. Although this species is generally grown in Teak baskets, I prefer ordinary pots which can be suspended, using the same compost as advised for the two previous species. After potting water carefully till the plant becomes well established. On bright days overhead syringing is helpful. Suspend it in the Cattleya house, and when growing and rooting freely during the summer months frequent overhead syringings will be most beneficial on account of the many aerial roots produced by this species. W. P. BOUND.

Galton Park Gardens, Reigate.

## THE INDOOR GARDEN.

### DORYANTHES PALMERI.

**S**O little known in Europe is this fine Australian Lily that the fact of its flowering this year at Nice, in the garden of Mrs. Evans, Torre di Cimella, deserves record. It flowered once at Kew in 1888, but I have no knowledge of its blooming elsewhere till this year, when I heard of its throwing up a flower-stem in two other Riviera gardens, but as I have not seen them I hope I shall be corroborated, or excused if my informants are



CYPRIPEDIUM VILLOSUM IN THE GARDENS, DOBROYD CASTLE, TODMORDEN.

wrong. *Doryanthes excelsa* is the typical species. It sends up a straight spear-like stem from its base amid a cluster of foliage rather like *Dracena Draco*, and it is crowned by a closely packed head of crimson blossom, which as I first saw it, when backed by tall *Eucalyptus* and light *Corypha* Palms, is most striking, even at a distance. *Doryanthes Palmeri* has a drooping and elongated spike of flowers, much like the well-known *Beschornia glauca*, but larger and handsomer. The individual blossoms, however, stand up on the side branches, and with their red bracts make a noble effect of colour and semi-tropical luxuriance, so that it is a plant well worth planting and waiting for, even if it takes sixteen or twenty years to come to flowering size when raised from seed. Whether this species makes offsets and grows into a clump as *D. excelsa* does is not yet apparent. Perhaps those who know it at home will enlighten us. Even if it never flowered the shining and brilliant green colour of its foliage makes it a very ornamental plant; indeed, I shall regret its flowering if it in so doing leaves a blank in Mrs. Evans's stately garden.

E. H. WOODALL.

#### VALUE OF LATE-ROOTED CHRYSANTHEMUMS.

CUTTINGS taken about the second week in May from surplus stock may be used to advantage. If the tops are inserted in a box of good sandy soil, labelled carefully as the work proceeds, and kept close for a time, in about six weeks they will be ready for potting into 3-inch pots. Those sorts that make a second bud should be pinched as they recover from the repotting. When the pots are full of roots they should be transferred to flowering pots 5 inches to 6 inches in diameter. It is astonishing what fine plants may be had in this way, providing strict attention is paid to watering. Give them an occasional stimulant, and place on a hard border of ashes. Such varieties in the Japanese section as *Souvenir de Petite Amie*, *Swanley Giant*, *Mrs. Barkley*, and others of a dwarf habit answer well. Single and decorative varieties also succeed well. The plants take up little room in the houses.

W. GARWOOD.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

#### STANDARD GOOSEBERRIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The training of Gooseberries as standards, so clearly illustrated in your issue of the 28th ult., serves to awaken an interest in a method that has not many followers. Those who find pleasure in new or out of the common garden practices may adopt Mr. Martin's ideas, and find a useful pleasure in so doing. Standard-trained Gooseberries cannot be regarded other than as a luxury. No commercial aspect would embrace such a method, because it is slow, expensive to initiate and to maintain. It is well known how standard Roses when tied with string break away from the stakes during high winds, and unless promptly attended to run the risk of being hopelessly crippled or broken. The same would happen in time with the similarly trained Gooseberry. Mr. Martin claims several advantages from the adoption of standards, but he has apparently overlooked one, namely, the ease of gathering the fruits. In a wire enclosure standards would afford a ready means of varying the aspect of the plantation; alternate trees or rows would break up the monotony of the rows. From the point of view of flavour there should be no doubt about the superiority of fruits from the taller trees; their

elevation and exposure to the light ensure this. As Mr. Martin points out, varieties with a drooping habit of growth would seem the best suited.

W. S.

#### CELMISIA CORIACEA AND C. VERBASCIFOLIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of January 30 last three illustrations are given of our native *Celmisia*, one of which is styled *C. coriacea*. This is an error; it should be *C. verbascifolia*. The former is a much more rigid plant, with silvery leaves; the flower stems, too, are thicker, and there is no mistaking the two plants. Besides knowing the plants generally, I know the one from which the photograph was taken, and have spoken to its owner regarding the mistake which had been made. He was unable to account for the error creeping in. To show my intimate knowledge of the plant, I may say it is growing near my residence in the garden of Mr. H. J. Matthews, State Forester. The photograph was taken by Mr. A. Hamilton, then Registrar of the University here, now director of the Colonial Museum, Wellington. All these men are botanists, so that the mistake is more unaccountable. *C. coriacea* is much hardier than *C. verbascifolia*, and should in a well-drained rock garden stand any English winter. If it did not succeed it would be owing to damp, not frost.

Dunedin, New Zealand.

A. BATHGATT.

#### DAFFODILS IN MOIST GROUND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Reference has been made recently to the advantages of moist ground for the growth of Daffodils, and with those opinions my experience coincides. In our borders there are some spots which, in winter time, become excessively wet, while other positions afford conditions just the opposite. The first blooms are gathered from the moister sites, and the bulbs increase at a remarkable pace in an incredibly short space of time. On the other hand, the drier spots afford frequent blank spaces, requiring additional stock. Ground sloping sharply to the west and a clayey subsoil below tend to make surface water track over the ground in places where the drainage is not sufficient. Trees and Daffodils revel in this apparently ungenial surface. While these bulbous roots keep so vigorous, Tulips and Croci succeed only for short periods. Imported roots of Tulips do well for a time and then dwindle away. Croci act similarly, but Snowdrops seem to enjoy cool, moist soil. From a single Daffodil root planted a few years since an increase has been made quite a hundredfold, and each year some thirty or more blooms could be cut from the present clump.

Wills.

W. S.

#### THE PRESERVATION OF WILD FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is greatly to be desired that Mr. G. S. Boulger's protest against the destruction of Ferns and wild flowers, now proceeding apace, may be listened to in high places and have some practical effect. The destruction of Ferns is probably greater than that of wild flowers, as these increase less freely from spores than flowers do from seed. There is no doubt that hundreds of thousands of Ferns are annually uprooted and sent into the towns for sale, the majority doubtless dying. This is a case in which the trade receiver is as much an enemy to wild plant life as the collecting or destroying vendor. From such depredations all districts alike need to be protected. The uprooting of wild plants, except by owners of private land, should be made an offence punishable with imprisonment, and on public land there should be no exception in any one's favour. Mr. Boulger does not think that the mere gathering of wild flowers leads materially to their extermination. That may not be so where these flowers abound and many are still left to seed. But the rarer ones are eagerly sought for in

so many cases, especially by children collecting flowers for baskets, nosegays, or collections for competition at the rural flower shows, and when these flowers are gathered the prospects of perpetuation by these rarer kinds are poor indeed. We all profess to greatly love flowers, but far too few have learned to respect them. If our children were taught that even wild flowers have some rights—especially the rights to bloom for the dissemination of beauty, of perfume, and, not least, for reproduction—we should see less of that feverish haste which is so prevalent now to ruthlessly pluck every beautiful wild flower seen, even though it be soon after in a state of semi-decay, thrown down and trampled upon. Could it have remained to flower by the roadside it might have gladdened the eyes of many passers-by; once plucked it is gone for ever. How much I have wished we could have in every county a wild flower garden. Would that the Royal Horticultural Society, now that it has a beautiful wild garden at Wisley, yet so largely planted with exotics, set aside some two or three additional acres on which to form a garden that the late Mr. G. F. Wilson would have enjoyed to be planted solely with plants indigenous to the county of Surrey. What a singularly interesting garden might result. But, still further, such a garden would form a precious preserve for all those rarities that are just now in so much danger of extermination. Surrey is as rich as most counties in its wild flora, yet it is a deplorable fact, so persistent has been destruction, that on few of its great number of commons are there found wild flowers, especially good ones, in any profusion.

A. D.

### THE KITCHEN GARDEN.

#### CLUBBING IN BRASSICAS AND REMEDIES.

ONE of the worst evils in the kitchen garden is clubbing, and in some soils, notably old gardens, it is difficult to eradicate. Cauliflowers and Brussels Sprouts are usually attacked most. It is at times difficult to trace the origin of the disease, as at the time of planting the plants appear quite free from it, and in a few weeks they droop and cease to grow. I have referred to old soils as being more likely to spread this disease; indeed, at times I have seen it so bad that the growers have ceased to grow Brassicas, thinking it impossible to do so. But this is erroneous; much may be done by deep cultivation, change of crop and food, and a free use of lime.

The disease is so easily spread that great care should be exercised in cropping, as not only Brassicas are affected, but other vegetables, such as Turnips, so that quite a different crop should be grown, and great care taken that infested soil or plants are not put on clean ground. There is no question whatever but that the disease is spread by contagion, as I have seen plants from a distance, and from a clean source, soon attacked; but there is this comfort, the disease only attacks certain plants. All, or nearly all, the Brassicas are liable to it, so that it is an easy matter to grow for a time an entirely different crop, and by so doing get quite rid of its attacks. It may be asked why clubbing is at times found in plants in what may be termed new soil. This arises from various causes. The plants may be diseased before introduction, but in such a case it is an easy matter to clear the soil by using lime during the winter months, turning up the soil roughly. I have known clubbing introduced by using soil from rubbish heaps, manure from decayed roots and weeds, and also by continued neglect of the land.

Remedies are more readily described than the disease, and there is no doubt that in time and if effectual measures are taken the disease can be exterminated—at least, it can be got rid of so thoroughly that it will be absent for years. In the first place we do not use nearly enough lime in our gardens; it is a splendid preventive not only of club, but other evils. I even go further and use gas lime freely. At one time clubbing was

very bad, but by using the last-named we have little trouble now. Gas lime needs care in application; it is very pungent, and is best used in the autumn and winter. If the lime is broken finely and spread on the surface for a short time and then dug in it destroys the germs in the soil. Fresh lime is equally good if used liberally. The land should be dressed annually. When this has been done I have grown Brassicas repeatedly in the same soil. Gas lime should be used in less quantities than common lime. We mix in a good quantity of gas lime. This, if placed in a large heap, may the next season be used freely, as it will have lost its strength somewhat. Fresh common lime may be used at the rate of 20 bushels per square rood, or, say, 80 bushels to the acre, and even more as a first dressing in badly infested land. There are other remedies, such as soot and lime; these in equal parts will for a season free the plants. Many use it in the following way: The lime is slaked by exposure and mixed with an equal quantity of soot, drills are drawn previous to planting, the mixture is then placed in the drills and the plants put in position with a trowel, the mixture being placed freely round the roots, or a small portion may be put in with each plant, but this is only for one season.

When the soil cannot be turned up or exposed much of the evil is caused by taking infested plants from seed beds and planting them; if only slightly diseased it would be far better to discard such plants. I know that some growers have taken severe measures, cutting away a good portion of the root or part diseased previous to planting, but it is only a slight relief, it reappears later. I have for a season, when short of any particular Brassica, dipped young seedlings in a strong mixture of carbolic acid and tepid rain water. Paraffin in a soluble state not too strong will kill germs. I have in wet seasons found nitrate of soda check the disease, but it does not kill it entirely by any means. I have referred to deep cultivation, change of food, and rotation of crops. Much may be done, especially by the first named, and what is termed resting the soil, *i.e.*, growing an entirely different crop, and by deep cultivation and using lime freely the soil will get into a cleaner condition. Plants, such as Brussels Sprouts and Broccoli, that occupy the soil for the greater portion of the year, should, if possible, be given a long rest from these plants, and cropped with totally different ones. If lime was used occasionally instead of rank manures there would be less disease to contend with. In any case, where club is present, cropping needs more care, and Brassicas should not be grown in successive seasons.

G. WYTHES.

## THE FRUIT GARDEN.

### SOME PEACHES OF RECENT INTRODUCTION.

IT is strange to find in some things how conservative and disinclined to progress with the times the British gardener is. In the matter of new fruits and vegetables this is most apparent. Instead of at least giving a thorough trial to newly-introduced varieties, he is greatly inclined to leave these severely alone, and to restrict his collection to those sorts that were grown when he was a boy. It must be admitted that often new fruits fall short of the standard of perfection reached by the old varieties, and discrimination must of course be used. If some are worthless, however, that is no reason for refusing to recognise a good thing when it is put before one. New Peaches appear to have been much neglected. Messrs. Rivers and Son have introduced several very good varieties during recent years, which have obtained awards of merit from the Royal Horticultural Society, and deserve to be more widely grown. Their Nectarines Cardinal and Early Rivers' have proved a boon to fruit growers, and it is

bardly too much to say that if some of their new Peaches were given a similarly fair trial many gardeners would find them of great value.

For instance, in how many gardens is Peach Thomas Rivers grown? I venture to think that in not a great many. Yet this variety has received a first-class certificate from the Royal Horticultural Society, an honour rarely accorded to a fruit. It is a large, handsome, round fruit, that ripens towards the end of September, the skin downy, with a brilliant red flush. Those who have grown this Peach speak very highly of it, and all that is known about it proves it to be an excellent late Peach. It was given a first-class certificate in 1898. Peach Duchess of York, which is an improvement on the early American varieties, as it crops much more freely and regularly, is a beautiful fruit. It is primrose colour on the shaded side, and striped and blotched with red on the sunny side. The flavour is delicious, and reminds one of that of a Nectarine. This variety received an award of merit in 1901. I know one large market grower who has added this Peach to his list of varieties. Duke of York is a highly-coloured fruit of medium size, and an excellent sort for forcing. Its flavour, also, is all that could be wished for. An award of merit was given to this Peach in 1902. Peregrine is also another new Peach which Messrs. Rivers have exhibited in splendid condition on several occasions, but I am not sure if it is yet in commerce. There is a variety called Duchess of York, a fine late Peach raised by Mr. Divers at Ketton Hall. But this also, I believe, has not yet been sent out.

A. H. P.

### EARLY GOOSEBERRIES.

WHEN green Gooseberries make their first appearance in the market they are so insignificant that one thinks it is a pity they should be picked so early, yet the trade done in these tiny fruits is considerable. Tempted by the high prices the first pickings fetch growers are anxious to get a few consignments into the market as soon as they can, and the thinning of the fruit relieves the bushes of a part of their burden, and the berries which are left consequently swell out larger than they would do otherwise. In different parts of Kent there are many acres of land under Gooseberry culture, and planting has increased since Black Currants have failed so lamentably through the spread of the bud mite pest. Several districts in the county are noted for early Gooseberries, and from plantations in that splendid fruit-growing locality in the



PEACH THOMAS RIVERS IN A POT.

neighbourhood of Sandwich some of the earliest green fruits are obtained. The varieties grown are not numerous, and Early Kent, Crown Bob, Whinham's Industry, and Lancashire Lad are amongst the most popular. Market growers know the importance of young vigorous bushes, and by annually propagating they always have a stock in hand to take the place of older specimens when the latter display signs of debility. In Kentish fruit plantations one does not see Gooseberries pruned so severely as they often are in private gardens, for while the wood is thinned out sufficiently to avoid any difficulty in picking, young shoots breaking from the main branches are left where there is room for their accommodation. Returns vary considerably, and whereas last year Gooseberries were a paying crop, in other seasons, when fruit is very plentiful, prices rule so low that little margin is left after marketing expenses are paid.

H.

### A STROLL THROUGH THE HORTICULTURAL SHOW IN PARIS.

FRANCE is the land of flowers, and the two great floral exhibitions held in Paris every spring and autumn, under the auspices of the French National Horticultural Society, bear full testimony to the care bestowed upon their cultivation. This year the show opened on Wednesday, the 25th ult., coinciding, or nearly so, with the epoch of the Whitsuntide holidays. The show itself is admirably placed. Every English visitor to the French

capital knows the two great Conservatories of Cour la Reine, twin giants overlooking the Seine, and glittering, like it, in the summer sunshine. They were constructed for the International Exhibition of 1900, and are alike both in size and form. Each is, roughly speaking, about 80 yards long by 40 yards broad. The span of the lofty glass roof is unsupported by a single pillar, so leaving the entire area of the space thus covered open to the view of the beholder. Between the two conservatories is a large plot of garden, which, like the quay lining the river, had been canvassed over for the occasion.

On entering we first found ourselves in a temporarily erected, light, wooden building of circular form, the walls of which were covered with pictures representing either fruit or flowers. Several of these were of no mean artistic value, for the society counts many painters and sculptors among its members. The works of the latter were distributed up and down in the midst of the foliage and flowers of the exhibition, adding greatly to the charm of its effects. Leaving behind the picture gallery and passing through a green bower of tall Palms and waving Bamboos, the whole expanse of the first conservatory, with its multicoloured parterre, greets the eye. It must be confessed that our Gallic friends excel in matters of taste, notably in the arrangement and disposition of flowers and flower masses. Every plant—I might almost say every flower—was placed so as not only to display to the best advantage its own grace and brilliancy, but also to enhance its neighbour. Contrasts were very delicately managed, and the graduation of shades in colour was carried to the very perfection of art. In this part of the exhibition were grouped the more fragile flowers of the season, annuals, perennials, &c., with Roses, Roses everywhere. The Rhododendrons and Azaleas were to be found further on. A beautiful bed of Gloxinias, flanked by curving, moon-shaped bands of flame-coloured Begonias, offered a perfectly endless variety of those fascinating flowers. Near to them was a mass of Hydrangeas, pink and blue. Many of the heads measured from 37 inches to 48 inches in circumference. The exhibits of the blue variety were very numerous this year, and displayed several different tones of colour. None of them, however, can rival the deep turquoise blue, which is, deservedly, the universal favourite. This Hydrangea makes a most effective bed when grown in a sufficiently large mass. It cannot bear too much sun; at least, not in this country. I have seen a very large bed of it planted on the shady side of a château in Central France, the effect of which was superb. The blooms were enormous, and of the deepest and purest blue.

Those who, like myself, have a weakness for Cinerarias of the old-fashioned type, must feel a little disappointed to see how entirely they are being superseded by the new, loosely growing, small-flowered varieties. Nevertheless, a large bed of these latter, in many different tones of blue and violet, called forth great admiration for the lace-like delicacy of its almost unbroken surface of *minuscule* starry flowerets. M. Noin's fine collection of Geraniums made a very brilliant patch of colour, and one smiled to see Lord Kitchener (not a very popular hero in Paris) conspicuous in the middle of it. But, perhaps, the prettiest exhibits in the show were those of the annuals. Of these there were two. The first consisted of two raised beds facing each other, oblong in shape, both surmounted by tall, waving Foxgloves, white, mauve, and purple. From these sloped downwards on all sides the artistically blended colours of almost every annual known to Europe, but so charmingly were they all mingled that it was only after long gazing that one began to distinguish one from the other. The other exhibit consisted of one long undulating bed, slightly curved in form. Here separate species were

more distinctly seen, but when looked at in its length the undulation of the bed produced a very happy effect.

Roses abounded in great variety. Several of the collections were very fine, but numerous specimens of the most beautiful of all flowers were so extraordinary in colour that we were tempted to believe they were not Roses at all. A Rose may be red, or pink, or white, or yellow, but a Rose compounded of all these tints is an anomaly, and gives one the sensation of Nature in a fit of spleen. Nature, however, knows better than to destroy what is beautiful in straining after novelty. We noticed a very pretty Crimson Rambler in the form of a parasol, and a companion tree of the same shape and size, a Duchesse d'Auerstadt the lovely yellow blossoms of which formed a delicate contrast to its deep-toned neighbour.

In the second conservatory the Rhododendrons and Azaleas were the prominent features. Of the former there was really a glorious exhibition, many of them bearing English names. M. Moser, justly celebrated in France for his Rhododendrons, was, as usual, one of the chief exhibitors. He showed a new variety, a small plant not more than 3 feet high, but bearing several large trusses of flowers. The flower is pure white, with faint yellow centre, the truss pyramidal in form, composed of fifteen beautiful blooms.

Space fails to describe the fruit and vegetables, the machinery and garden tools, and other interesting departments of the exhibition. It continued open for several days, and constituted an attractive promenade for the flower-loving inhabitants of Paris for the remainder of the week.

M. E. G.

[We greatly regret that this account of the Paris show has been held over through pressure upon our space, but we think it is of quite sufficient interest to print even now.—ED.]

### CYTISUS PRÆCOX.

ALL the early-flowering Brooms have done well here this spring, especially *C. præcox*, which has been a glorious sight for weeks and is only just over. I am sending a photograph of one of the bushes at the edge of the lawn, the growth of which has been especially graceful and picturesque. The

white Portuguese Broom has also flowered abundantly, and so have all the smaller kinds.

Yalding.

S. G. R.

## NOTES FROM THE MARKETS.

IN Covent Garden Flower Market the busy time is just now on the turn, but the supplies seem a very long way from being exhausted. Almost all spring plants are still abundant, and I find most growers have a large reserve at home. At the end of the bedding season it is often difficult to procure what is most wanted, but it does not seem likely to be so this season. The best zonal Geraniums in 3-inch pots are not quite so plentiful, but in 4½-inch the supply is more than equal to the demand, and for late planting these are more desirable than small plants in 3-inch pots, and they may this season be had at a more moderate cost than has been the case during the past few years. Well-flowered plants of West Brighton Gem might have been bought last Saturday at 3s. 6d. per dozen, or perhaps less. This is a great falling-off from what I have known realised. The Ivy-leaved Pelargoniums are also very plentiful. Baden-Powell variety, flowered, is now seen, also Leopard, Mrs. Martin, and others away from the ordinary market sorts. Single Petunias, grown several plants in each pot and well in flower, are very pretty. Yellow Marguerites are very good, and the yellow Chrysanthemum segetum is now extensively grown. To get this true it requires careful selection for saving seed from, and they should be grown some distance from any others, else they are sure to get cross-fertilised. To get dwarf plants for spring use the seeds may be sown in the autumn, and the tops taken for cuttings early in the year. To grow from seed it is difficult to keep them dwarf enough.

*Fuchsias*.—Of these Gertrude Pearson is decidedly the best crimson with dark corolla, and Ballet Girl the finest with double white corolla, but for bedding some of the singles are preferable. I find the old Mlle. Cornellisson, which was a favourite forty years ago, is still used for bedding. Mrs. Marshall, Covent Garden White, and Lady Heytesbury are the best light-coloured varieties.



CYTISUS PRÆCOX BY PATHSIDE.



*Crassula* (Kalosanthes).—The dwarf hybrids of *jasminiflora* are now seen in the market, dwarf plants well covered with bloom, but the colours are not quite decided enough to attract much attention. *Gloxinias* in flower are also seen. Tuberous *Begonias* in flower are not numerous.

In foliage plants I noted good plants of *Ophiopogon*, also *Eulalia japonica variegata*, and *Asparagus tenuissimus*, large plants in hanging baskets. These are useful for out of doors, and will do well in almost any position provided they are well watered. Those in large pots do not sell so readily, but there is a good demand for young plants in 4½-inch pots.

*Adiantum cuneatum* is now plentiful in good plants, but other Ferns are not quite so plentiful just now. A. H.

## SOCIETIES.

### ROYAL BOTANIC SOCIETY.

ON Wednesday and Thursday of last week Professor Fisher of Cooper's Hill College and Mr. H. Somers Rivers of Sawbridgeworth respectively gave lectures on "Forestry" and "Fruit Culture in Pots," as part of the syllabus of conferences held in connexion with the horticultural exhibition.

#### LECTURE ON FORESTRY.

Professor Fisher first referred to the services rendered to forestry by Professor Schlich, who had great practical experience of this subject. Cooper's Hill College was to be closed, and the students would have to be taught elsewhere. It was probable that Professor Schlich would start a school of forestry at one of the Universities. Professor Fisher deplored the lack of properly organised schools of forestry in this country, such as there were in the United States. Foresters were badly wanted in the Colonies, and there was practically no training ground for them in this country. Owing to the efforts of the Commissioner of Woods and Forests a permanent working plan has been arranged for High Meadow Wood, Forest of Dean. Other forests are also being managed on a permanent working plan, and the time was now ripe for the establishment of a national school of forestry. Coming to the real subject of the lecture, Professor Fisher said, with reference to the influence of forest growth upon the rainfall, it has been proved that large forests increase rainfall. The air over woodland has been found to be moister than that over agricultural land, and this to a height of 3,000 feet. With regard to the effect of forests on the humidity of the soil the lecturer said that they help to drain the land. He gave as an example the successful planting of Eucalyptus trees on the swamp lands in Northern Italy with that object in view. Forest trees keep the surface soil moist to a depth of 16 inches and the subsoil dry. If hills were planted with trees floods would to a large extent be prevented, as much water would be kept on the hills. A great deal of manure is also wasted through floods. Professor Fisher said that forest trees do not want rain in summer if they get plenty of winter rain. The rainfall of this country was quite sufficient for the growth of forest trees. Our winter was not hostile to their well-being, but spring frosts (except in the south-west and in Ireland) were often very trying. Protection from western gales is also necessary, even in Norfolk. Broad-leaved trees withstand gales better than conifers. Whether Larch will stand gales or not depends upon the soil it is grown in. On limestone it grows sturdily; on the Bagshot Sands, for instance, it does not.

There are no definite climatic zones in Britain so far as conifers are concerned; their successful culture depends more upon other local conditions. Above a height of 1,500 feet profitable forest tree culture is rare in this country. With the exceptions that Spanish Chestnut and Douglas Fir will not thrive on limestone, most forest trees are indifferent to soil. Professor Fisher referred to the value of humus from the natural surfacing of leaves. These should be preserved. The effect of basic slag on trees is beneficial; conifers benefit from applications of basic slag, nitrate, and kainit. Farmyard manure gives rise to so many weeds. The lecturer recommended the Silver Fir to be more extensively grown. Seed could be had for 6d. per lb. It should be sown under the shelter of Larch or Birch. Referring to the Douglas Fir, the lecturer said that Nansen's ship (The Fram) was built of this wood. This tree must be sheltered from gales, and will not grow in limestone soils. There are two distinct varieties, the green or Pacific variety, which grows quickly, and the Glaucous or Colorado one, which is of slower growth.

In conclusion, Professor Fisher treated of the seeds of forest trees. He said it would be most useful if experiments were carried out in Britain as to the results obtained from seed from different localities.

Mr. Brinsley-Marley was in the chair, and before proposing a hearty vote of thanks to Mr. Fisher for his valuable lecture, he said, from his own experience in Ireland, he believed the Douglas Fir to be valuable for general planting and for resisting gales. Mr. Brown of Stamford deplored the lack of interest in forestry in this country.

#### FRUIT CULTURE IN POTS.

Lord Redesdale took the chair on Thursday when Mr. Rivers gave his lecture on the above subject. Mr. Rivers said that ripe Peaches and Nectarines could not reasonably be expected earlier than April. The trees should be plunged out of doors in June, and re-potted in October when the leaves begin to fall. When potted place them in a cool

house and keep them well syringed. In potting it is essential to make the fresh soil firm; often the same sized pot will do again, at any rate care must be taken not to use too large a pot. The soil must not be so wet as to be sticky when used. About Christmas the fire must be started and forcing seriously commenced. The trees must not be hurried. As soon as leaves and blossoms are seen, shorten the last year's shoots, retaining four or five good buds, to a triple eye if possible, at any rate always to a leaf-bud. Long slender shoots might be left to bear fruit and then be cut out. The temperature of the house should be about 40° Fahr., it must not fall below 35° at night. The flowers ought to be fertilised with a camel-hair brush. Keep a good circulation of air when the trees are in flower. The fruits usually need thinning. Thin once or twice before stoning, and after stoning finally regulate the number of fruits to be left. The trees should be staked before they are in fine leaf. Pinch out the tops of the current year's shoots when about 6 inches long, if this were not done the terminal buds would be nourished at the expense of the basal ones; also begin to pinch the shoots at the top of the tree first. Previously forced trees often bear ripe fruit a week earlier than trees that have not been forced before. Do not syringe after the fruits change colour. After the stoning is over a top-dressing of manure was recommended. Some of the varieties of Peaches recommended for pot culture were Duchess of Cornwall, Duke of York, Peregrine (which is a seedling from Spencer Nectarine), Crimson Galande, Dr. Hogg, The Nectarine Peach, and Thomas Rivers. Among the Nectarines given were Cardinal, Early Rivers, Lord Napier, Rivers' Orange, Dryden, and Victoria (latest of all). Mr. Rivers said that Cherries and Plums also well repay pot culture. The fruits of these do not as a rule require thinning, they thin themselves. They require more air than Peaches and Nectarines. Apples, Pears, and Figs were also recommended for pot culture, the latter will bear two crops. Mr. Rivers said it was necessary to have the boiler well above its work, and to have plenty of piping. Insect pests and remedies for them were also dealt with.

Lord Redesdale, in proposing a hearty vote of thanks to Mr. Rivers for his instructive lecture, referred to the greatly improved varieties of Peaches and other fruits, which Messrs. Rivers had largely brought about.

#### DARJEELING FLOWER SHOW.

It is a pleasing duty to be able once again to chronicle a complete success for the annual flower show of Darjeeling. This is the fourth of the series, and there are no signs of retrogression; on the contrary, both financially and horticulturally, the last show was a distinct jump forward. An even better advance would have been the result if the weather for a few days previous had not been so unfavourable. Many would-be exhibits were ruined by violent storms, and even on the day of the show a violent hailstorm spoilt some exhibits as they were being taken to the show.

One of the leading features of the Darjeeling flower show is the competition by ladies for the best floral arrangement for a dinner table. This year it was especially prominent. There were no less than sixteen competitors, and it must have been a trying task for the judges to award the prizes, as the competition was so keen and equal. Mrs. Maidlow secured the first prize for a handsome arrangement of white Orchids (*Cœlogyne cristata*); Mrs. Hartless was second for an extremely pretty arrangement of mauve Orchids and Maidenhair Ferns; and Mrs. Morgan third for an effective display of *Maréchal Niel* Roses. The Lieutenant-Governor's prize was again secured by Mr. Morgenstein. There was a distinct advance in pot plants, especially Geraniums and Pelargoniums, showing that the lessons of previous shows were taken to heart. Roses and other cut flowers suffered for the reasons already stated. Vegetables are coming to the fore, and were a creditable show for this time of the year. A very fine collection was staged by Mr. Morgenstein, who carried off the silver medal. Fruit, as may be expected at this season, was but poorly represented. Exception should be made, however, in favour of Strawberries, of which a fine dish was staged by Mr. Stolke, who had the honour of presenting the same to Lady Fraser, who, with his Honour the Lieutenant-Governor, visited the show. The committee are to be congratulated at the great success of the show, which has now aroused such a great interest in the district that its future should be effectually guaranteed. The hon. secretaries of the show were Messrs. G. L. Searight and A. C. Hartless.—*Indian Planting and Gardening.*

#### EAST ANGLIAN HORTICULTURAL CLUB.

At the June meeting of this club, held at the Shire Hall Hotel, Norwich, Mr. T. B. Field, The Gardens, Ashwellthorpe Hall, read a most instructive paper on "The Clematis." Without in any way dwelling upon the productions of latter-day hybridists, Mr. Field treated of the natural habitats and mode of growth of many of the lesser known members of the genus. Mr. Field, in the charming garden of flowers he is in charge of, grows in the open many of them, and was able to speak freely of the hardiness and free blooming capabilities of montana, coccinea, and others. During the discussion, in which several members took part, Mr. E. Peake, Rydal House, Norwich, pointed out many interesting botanical points of the plant and flowers. Clinging by leaf tendrils had attracted the attention of botanists, and Darwin had written much upon it. There was also the tendency of the blooms to droop while the numerous stamens were charged with pollen, and their resuming an upright position when pollination had taken place, to be followed by the pretty bearded seed pods. A hearty vote of thanks was accorded Mr. Field for the paper.

On the exhibition table Hobbies, Limited, Dereham, set up a pretty display of named Carnations, Roses, Clematis, and Sweet Peas, grown in their nurseries. The fresh and brilliant colours were much admired. Fruit was represented by only a few Strawberries. Pelargoniums, both show and zonal, were well grown by Messrs. C. Burtenshaw, W. Rush, D. Howlett, and C. Matthews. Cut herbaceous flowers were a

striking feature, Mr. F. Williams, gardener to Mrs. Louis Tillett, Old Catton, being at the top in this class. Mr. Howlett and Mr. Burtenshaw also had good groups. Mr. C. H. Hines, Trowse House Gardens, exhibited the best Asparagus, the variety being from a selection of his own. Mr. J. E. Barnes, seedsman, Exchange Street, Norwich, set up a display of his Cabbage Norwich Market, a sturdy early variety of good heart and shape. He offered prizes for the best three heads, Mr. C. H. Fox, gardener to Sir E. Mansel, Bart., Catton, securing first, and Mr. D. Howlett second. The summer excursion of the club has been fixed for July 28, to Framingham Hall and Dunston Hall.

#### SCOTTISH HORTICULTURAL ASSOCIATION.

The monthly meeting of this association was held in Dowell's Rooms, George Street, Edinburgh, on Tuesday, the 7th inst. There was a good attendance, presided over by Mr. J. W. McFattie, president of the association. The paper of the evening was on "Florists," the author being Mr. James Grievie, Redbraes Nurseries, Pilrig, Edinburgh. Mr. Grievie gave a most interesting paper, in which he referred to a number of the more prominent florists of past and present times, together with the plants they had raised or introduced. Among the Scotsmen referred to were James Justice, the author of "The Scots Gardener's Director," and other works, who raised a number of new plants; Mr. J. Cunningham, of Comely Bank, who raised the bi-generic *Bryanthus erectus*; Mr. A. Turnbull, Bothwell Castle, who raised *Cape Heaths*; Mr. J. Anderson Henry, who raised *Clematises*, *Campanulas*, *Veronicas*, and a number of other plants; the late Mr. John Downie, who raised many florists' flowers; and in more recent times and in the present day, the late Dr. Charles Stuart, of Chirnside, the raiser of *Violetta* and other *Violas*, *Dafoodils*, &c., with Mr. Robert Lindsay, of Kaimies Lodge, who has raised many *Veronicas*, *Primulas*, and other flowers. Mr. Grievie was heartily thanked for his most enjoyable paper. A large number of exhibits were on the table, among these being *Rhododendron* trusses from Mr. Johnstone, Hay Lodge; *Lilac* Charles X. from Mr. Comfort; seedling *Troliuses* and other flowers from Messrs. James Cocker and Sons, Aberdeen; seedling *Passiflora*, &c., from Mr. McKenzie; with a number of flowers from Messrs. James Grievie and Son, Redbraes.

#### CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

"SELAGINELLAS" was the subject of a paper read before the members of this society at their rooms, Sunflower Temperance Hotel, on the 7th inst., and in the hands of Mr. A. Osborn, Royal Gardens, Kew, it was most exhaustively and ably dealt with. These highly decorative plants, he said, had been somewhat neglected of late years, because, perhaps, the glowing bright colours found in flowering plants were more attractive to the eye and created more demand; yet when they examined the beautiful fronds of well grown plants, their forms should gain a greater popularity than at present. Intermixed with flowering plants, they ought surely to deserve a place of higher rank. The propagation took place by spores, although not often adopted, except in hybridising, the principal method being by division and cuttings. The soil should be light and rich, made of loam, leaf soil, sifted peat and sand, good drainage being very essential. The atmosphere around them should be kept humid, and great care must be exercised in watering, especially through the winter. Other details were given as to cultivation, and to show the different forms the speaker passed a few specimen fronds round. A discussion followed, and the chairman proposed a hearty vote of thanks to Mr. Osborn, which found ready response. Some cut blooms of new hybrid Iris and new Tulips were exhibited by Mr. J. Gregory.

#### CROYDON HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

This society's usual meeting took place at their rooms on Tuesday, the 7th inst. The subject under discussion related principally to insect and fungoid pests, which are so prevalent just now. The gardener among the many trials in his profession fears nothing so much as these. Many useful hints for their eradication, which emanated from those who had solved the difficulty, were given, so that the profitable experience gained by one is given for the benefit of all. Exhibits came from Mr. W. Turvey, Station Road Nursery, who staged half a dozen excellent plants of *Gloxinias*, the blooms being of fine form and colour, and blooms of *Primula obconica*, showing good varied shades were staged by Messrs. E. W. and S. Rogers, High Street. The thanks of the meeting were conveyed to the exhibitors.

#### ROYAL HORTICULTURAL SOCIETY.

##### DRILL HALL MEETING.

THERE was again an excellent display in the Drill Hall on Tuesday last, hardy flowers, shrubs, and indoor plants all being extensively exhibited. The various committees made fewer awards than usual. In the afternoon Professor Henslow gave a lecture on "Floral Metamorphoses."

##### ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, J. Gurney Fowler, de B. Crawshaw, Francis Wellesley, Walter Cobb, W. A. Binley, H. T. Pitt, F. W. Ashton, R. G. Thwaites, G. F. Moore, T. W. Bond, W. Boxall, H. A. Tracy, W. H. White, E. Sander, F. W. Moore, H. Little, J. Wilson Potter, H. Ballantine, Jeremiah Colman, and W. H. Young.

Messrs. Sander and Sons, St. Albans, showed a handsome group of Orchids, in which varieties of the hybrid *Lælio-Cattleya Martineffii* figured largely. These were very beautiful. Some of the best forms were *Suavis*, with rich purple lip and purple and faint-tinted petals and sepals; *Jupiter*, a larger and lighter-coloured flower; *Sunset*, with rich lip and paler petals and sepals; *Saturn*, a rich purple tint throughout; and *Mars*, with apricot-tinted sepals and petals and

purple lip. *Lælio-Cattleya canhamiana* var. *Princess of Wales*, L.-C. e. var. splendens, *Lelis Yula* (L. purpurata X L. cinnabarina), and *Miltonia vexillaria* varieties were other handsome Orchids in Messrs. Sander's group. Silver-gilt Flora medal.

Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young), showed an interesting group of Orchids, in which the lovely white, yellow-throated *Sobralia* (S. macrantha alba) was conspicuous. S. macrantha, with rosy purple flowers, was also shown. *Cologyne pandurata*, with beautiful green and black flowers; *Odontoglossum ardentissimum* (crispum X Pescatorei), *Oncidium gardnerianum*, *Thunia veitchiana*, *Lælia cinnabrosa*, L. digbyana, L. C. Hippolyta, *Aerides Fieldingii*, *Miltonia vexillaria* var. *Memoria G. D. Owen*, and *Phalenopsis luddemanniana* were others exhibited. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited numerous *Cattleyas* and *Lælio-Cattleyas*, as well as other interesting Orchids, for instance, *Oncidium divaricatum*, *O. sphecelatum*, *Cymbidium lowianum*, *Spathoglottis aureo-Viellardi*, *Epidendrum prismatocarpum*, *Thunia marshalliana*, *Dendrobium Bensonei*, *Dendrobium uncatum*, and *Cologyne dayanana*. Silver Flora medal.

Messrs. Stanley, Ashton and Co., Southgate, N., exhibited a group of Orchids, in which *Oncidiums*, *Odontoglossums*, and *Cattleyas* were most conspicuous. Among the former were *O. varicosum* Rogersii, *O. flexuosum*, and *O. curtum*. *Cattleyas* comprised C. Mossie var. *aurantiaca*, C. M. var. *Wagneri*, and C. M. *reineckiana*, while among the *Odontoglossums* were many varieties of good form, and some of them finely spotted. *O. luteo-purpureum*, too, was very good. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, had an interesting group of Orchids, in which many curious plants were included. Conspicuous among them were *Bulbophyllum Lobbi*, B. *claptonensis* (both with curiously sensitive lip), *Bifrenaria thyrantiana*, *Ultricularia montana*, *Cologyne Lowii*, *Cypripedium Baron Kuroki* (insigne *Chautini* X *Lowii*), a handsome flower; and *Lycaste tricolor*. *Cypripedium lawrenceanum* hyanum, *Dendrobium Dearii*, *Cattleya intermedia* alba, and C. Mossie *Wagneri* were shown also.

Messrs. B. S. Williams and Son, Upper Holloway, N., exhibited *Lælia purpurata* in good masses, *Vanda suavis*, *Cattleya schilleriana*, C. *Mendelii*, L.-C. *Edouard André*, several *Cypripediums*, *Miltonia vexillaria*, forms of *Odontoglossum crispum*, and other Orchids. Silver Banksian medal.

Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. White) exhibited *Dendrobium formosa* and *Lowii*, *Odontoglossum crispum pardalinum* (heavily spotted with red-brown), *Phisnecium amabilis* (cultural commendation), *Cypripedium Stoepei platytenum* (cultural commendation), and C. *Stoepei*.

H. T. Pitt, Esq., Stamford Hill, N., showed *Cattleya Mossie Day Dream*, C. *Mendelii* *formosa* *Rosslyn* var., L.-C. *Martineti* *Rosslyn* var., *Odontoglossum citrosum* *Rosslyn* var., *Trichopilia marginata Champantreaux* var. (evidently a form of T. *suavis*), and other Orchids.

Mr. H. A. Tracey, Twickenham, showed *Cattleya Mossie The Pearl*, *Lælio-Cattleya tintesfeldioides*, and *Cattleya Goodsonii* (rex X *Mossie*).

Gurney Fowler, Esq., South Woodford, showed *Lælio-Cattleya Herodias*.

De Bari Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables), exhibited *Odontoglossum nebulosum crawshayanum* (heavily and attractively spotted with greenish brown), *Odontoglossum Uro-Skinneri rosefeldense*, and a plant of *O. crispum* exhibited to show its remarkably rapid growth in peat, moss, and a few whole leaves.

Messrs. A. J. Keeling and Sons, Grange Nurseries, Westgate Hill, near Bradford, showed L.-C. *Vineæ* (L.-C. *Phoebe* X L. *tenebrosa*) and a few other Orchids.

*Odontoglossum Pescatorei* Grand Duchesse was shown by R. G. Thwaites, Esq., Streatham.

*Restrepia elegans* was sent by C. J. Lucas, Esq., Warnham Court.

#### NEW ORCHID.

*Lælio-Cattleya Martinetti* var. *Sunrise*.—One of several varieties that were shown by Messrs. Sander and Sons, St. Albans. The lip is rich deep purple, with undulating margin. Sepals and petals (the latter very broad) are rosy fawn tinged with purple, especially in the centre. Award of merit.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Chesl, T. W. Bates, S. Mortimer, Alex. Dean, H. Markham, George Thomas Miles, Henry Parr, R. Lewis Castle, F. Q. Lane, Owen Thomas, John Jaques, G. Norman, and James H. Veitch.

Seeding Melons were shown by Messrs. Wheeler and Sons, Limited, Gloucester, and by Mr. A. C. Smith, Woodlands Park, Leatherhead, but no awards were made.

The Charteris Protector Company, 23, Charterhouse Square, E.C., showed their Patent Plant Protector, which we have described before.

Mr. C. Harris, gardener to the Earl of Clarendon, The Grove, Watford, was given a silver Banksian medal for a box of very fine Koyal Sovereign Strawberries.

Tomatoes.—Trent Beauty and Coronation were exhibited by Mr. H. Parr, Trent Park Gardens, New Barnet.

A cultural commendation was given to Mr. A. A. Fabins, Redlands Nurseries, Emsworth, Hants, for Tomato Redlands, a very free bearing variety of medium size.

#### NEW FRUIT.

*Cucumber Aristocrat*.—The result of a cross between Unique and Sensation. This is a handsome, smooth-skinned, dark green Cucumber, from Mr. S. Mortimer, Farnham, Surrey. Award of merit.

#### FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, R. Dean, James Hudson, W. Howe, R. Hooper Pearson, G. Keithe, C. B. Fielder, C. Dixon,

J. Jennings, J. W. Barr, R. C. Notcutt, Charles Jeffries, R. W. Wallace, W. Cuthbertson, Charles E. Pearson, Charles E. Shea, George Gordon, E. H. Jenkins, Charles Blick, George Paul, E. Mawley, H. Turner, Amos Perry, E. T. Cook, and the Rev. F. Page-Roberts.

Cut hardy flowers were especially good, and we were much struck with the great wealth of Peonies, of which Messrs. Kelway and Sons, Langport, had a notable display. There were some five dozen huge vases of these alone, usually half a dozen flowers of each, and we select of double kinds *Lady Orlington*, flesh colour, with occasional crimson flame; Sir Edmund Barton, creamy white, with deeper central tuff; *Lady's Realm*, guard petals pink, centre cream; *Labotis*, crimson-lake; *Gravetye*, flesh pink, very large and full; *James Kelway*, sulphury white; *Princess Christian*, white; *Hyde*, rose; and *Sultan*, crimson. Of single kinds *Snowflake*, with large central tuff of yellow anthers; *Chalice*, pink; *Lacepede*, deep pink; *Countess of Warwick*, flesh; and *Amy Kelly*, white, flushed palest pink. All these have yellow tufts of anthers in the centre, and are very beautiful. *Pyrethrus*, single and double, and the earliest of the Larkspurs were also staged by Messrs. Kelway. Silver-gilt Banksian medal.

Peonies, *Pyrethrus*, and *Poppies* were freely shown by Messrs. R. H. Bath, Limited, Wisbech. Of the former, *albiflora carnea*, single; *albiflora grandiflora*, fine white, single; *Philomel*, guard petals pink, centre chamois; *Mme. James Adie*, guard petals rose-carmine, centre peach; *Fornosa*, guard petals pink, centre sulphury; *Mme. Calot*, flesh, very large double; *Souvenir de Dr. Bretonneau*, lake-crimson; *rubra triumphans*, one of the darkest, with a fine lustre on the petals; and *Ceres*, guard petals deep pink, centre buff-yellow. *Pyrethrus* and other things were also staged. Bronze Flora medal.

Messrs. Cuthbush and Sons, Highgate, staged a fine lot of hardy things near the entrance. Lilies and *Eremuri* were a conspicuous feature. Of the former, L. *Hausoni* was particularly good, and there was a good display of L. *elegans* in variety, L. *Brownii*, and others. Of *Eremuri*, E. *himalaicus*, E. *Bungei*, and E. *robustus*, with its variety *elwesiana*, were of exceptional merit. *Inula glandulosa*, a fine composite, with golden blossoms 5 inches across, with *Columbines*, *Pyrethrus*, *Dictamnus*, *Saxifraga pyramidalis*, *Incarvilleas*, and other plants contributed to a fine effective group. *Saxifraga mutata*, with orange flowers, and *Xerophyllum asphodeloidea* were noted among the rare things staged. Silver-gilt Banksian medal.

From Messrs. Jackman and Sons, Woking, came a very good lot of hardy flowers. *Lupinus arboreus*, single and double *Peonies*, handsome *Poppies*, *Inula glandulosa* (very fine), *Day Lilies*, *Thalictrum aquilegifolium*, *Papaver nudicaule* in variety, together with a fine lot of *Cypripedium spectabile*, *Flag Irises*, &c., were included. *Kniphofia caulescens* was also very fine. Silver Banksian medal.

Peonies, single and double, from Messrs. Barr and Sons were a great feature, the single kinds being especially good. *Venus*, for example, rose-carmine; *The Bride*; *Victoria*, very dark crimson; and *Rosy Dawn*, almost pure white, were very fine. Of doubles, *Leonie*, *Mme. Lebon*, *Reine Potard*, a lustrous deep crimson, with gold anthers; *Rosa magna*, *Countess of Clanarty*, creamy white; *Josephine Parmentiere*, rosy pink; and *rosea plenissima superba* were a few of the many set up in superb condition. *Iris juncea*, a fine rich yellow; *Inula glandulosa grandiflora*, *Campanula persicifolia grandiflora*, with Spanish Irises and other things, were well shown. Silver Banksian medal.

*Rhododendrons* from the Knap Hill collection of Mr. Waterer were shown in flower, the trusses arranged on boards. In this way, *Lady C. Mitford*, pink; *Mrs. A. Waterer*, white with yellow spots; *Mrs. George Paul*, pure white, were all good. Some fine unnamed seedlings were also exhibited.

Mr. George Renthe, Keston, Kent, had a small group in which *flag Irises*, *Achillea mongolica*, *Exonia albiflora grandiflora*, *Onosmodium tancica*, *Crimodendron Hookeri*, *Lychnis Viscaria splendens*, *Orchis biflora*, *Calochortus pulchella*, *Gypsophila prostrata*, *Iris tectorum* with *Heucheras*, were seen to advantage. Bronze Flora medal.

The hardy plants from Winchmore Hill, shown by Mr. Amos Perry, contained quite an array of the eastern *Poppies*, indeed, not less than a score of distinct things were staged. We take *Tulip Proserpine* and *Prince of Orange*, intense scarlet; *Queen Alexandra*, deepest salmon; *Mahogany*, Silver Queen, as among the more distinct. Double white *Koekets*, *Heucheras* in great variety, *Phlox ovata*, *Iris douglasiana*, buff yellow, with lilac veins very distinct; *Phlox canadensis*, *Perry's variety*, *Calochortus*, early *Gladioli*, *Lilium Martagon album*, and *L. rubellum* were other notable things in a very fine group. Silver Flora medal.

The *Crotons* from Mr. J. K. Russell, Richmond Nurseries, Surrey, were a capital lot. The plants were of useful size as table plants, and well coloured at 18 inches high. A large collection of the best kinds was staged, fully representative of this useful group of plants. Silver Banksian medal.

Some beautiful hardy plants and alpines came from Mr. Prichard, Christchurch, Hants, especially good being *Ixias*, *Iris spuria*, Spanish Irises in variety, *L. ochroleuca*, *Eremurus robustus*, *Pyrethrus*, *Peonies*, *Campanula nobilis*, *Ethiopia perisica*, *Campanula rupestris*, very charming; *Asperula hirta*, a carpet with white starry flowers; *Saxifraga cæcia*, *Campanula thyrsoidea alba*, *Saxifraga aizoides aurantiaca* were among the most interesting in a very charming lot. Silver Flora medal.

Messrs. Veitch and Sons, Limited, Chelsea, had a very charming group of *Gloxinias* in 5-inch and 6-inch pots. The flowers were of beautiful shades of colour. *Lobelia tenuior*, fine in colour, and *Rehmannia angulata*, arranged amid the plants, only added a diverse beauty to an effect already good. Also *Columbines* and *Eremuri*. Silver-gilt Flora medal.

Messrs. Cannell and Sons, Swanley, had hybrid *Columbines* in great variety in the cut state, together with a fine lot of *Gloxinias*, excellent plants and well flowered. Many of the self-coloured flowers were exceptionally good, and equally good the spotted kinds. Silver-gilt Banksian medal.

*Carnations* of the border section, with Malmaison kinds, came from Messrs. Hugh Low and Co., Enfield. We noted

H. J. Cuthbush, Innocence (white), *The Pearl*, also white and of good size.

Roses from Oxford, by Mr. G. Prince, were very beautiful. Red copper Briar, with *Bardon Job*, *Carmine Pillar*, *Polyantha grandiflora*, *Thalia*, *Harrisonii*, and others making a rich display. *Marie van Houtte*, *Maréchal Niel*, *Comtesse de Nadaillac*, *Mme. A. Carrière*, and others were finely shown. Silver Flora medal.

Messrs. Dobbin and Co., Rothesay, had a large grouping of hybrid *Columbines* in great variety. Bronze Flora medal.

Spanish Irises in blue, white, and yellow shades came from Messrs. W. Bull and Sons, Chelsea. Bronze Flora medal.

Roses from Messrs. F. Cant and Co., Colchester, were very fine and largely of the decorative class. In this way we remarked *Smica Anemone*, *Austrian Copper Briar*, the yellow *Harrisonii*, *Una*, large white, *Thalia*, *Carmine Pillar*, with *Camœns*, *Ma Capucine*, *Papillon*, &c. Several vases of *Lady Roberts* made a fine display alone. Silver-gilt Flora medal.

The Rose exhibit from Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, also made a most effective group. *Mme. A. Carrière*, white, very fine; the intensely coloured *Maharajah* is a fine single; *Blanc Double de Courbet*, *rugosa* var.; a pink H. T. seedling, named *Nance Christy*; *Una*, very fine white; *Dr. Grill*, *Mrs. B. R. Cant*, and many others were set up. Silver Flora medal.

A dozen specimens of *Malmaison Carnations* in pots were from W. James, Esq., West Dean Park, Chichester (gardener, Mr. Smith). The plants were 3 feet high of *Princess of Wales*, and 2½ feet through; H. J. *Juncea* the crimson kind of smaller plants, but abundantly flowered and well grown. A very fine lot. Silver-gilt Flora medal.

Roses and *Peonies* from Messrs. Paul and Son, Cheshuot, made a fine show. The former, in bunches, were a representative lot of moss and decorative kinds in all the leading sorts. *Lady Battersea* and *Una* were remarked as especially good. *Lonicera Hildebrandtii* was in fine flower. The *Peonia* and other hardy flowers were all of merit. Silver Flora medal.

The hardy flowers from Messrs. T. S. Ware, Feltham, made a great display. *Peonies*, Irises of the flag group, with many species, were abundantly represented. *Ostrowskia magifica* in fine flower, *Eremuri*, *Lilium colchicum*, *Poppies*, *Campanula turbinata*, and *Codonopsis ovata* were all seen to advantage. Silver Banksian medal.

Hardy plants were also well shown by Mr. R. C. Notcutt, *Columbines*, *Poppies*, *Heucheras*, *Peonies*, *Irises*, *Lychnises*, *Achillea mongolica*, *Pyrethrus*, and others in large numbers. A fine *Poppies* of the Oriental group is named *Lady Roscoe*, a brilliant orange salmon, and is most effective. Silver Banksian medal.

The large group from Messrs. Wallace and Co., Colchester, contained a brilliant lot of *Peonies*, such as *Imperial Queen* and *Emperor*. *Heucheras* and *Lilies* were freely shown with *Pyrethrus*, *Ixias*, *Gazania*, *Brodias*, *Achillea alpina*, a fine white flowered plant for cutting; *Incarvilleas*, *Day Lilies*, *Eremuri*, *Flag Irises*, and such things were also noted in this excellent group. Silver Flora medal.

A fine group of *Carnations*, mostly of the *Malmaison* section, came from Mr. Charles Turner, Slough. *Lady Rose*, *Gemma*, *Princess of Wales*, H. J. *Juncea*, *Princess May*, and *Thora* were some of the kinds in the group. Border kinds were also freely shown and in excellent variety. Silver Flora medal.

Mr. H. B. May, Edmonton, staged the only exhibit of Ferns, a collection of *Nephrolepis*, in which many large examples were seen. In all some forty-two species and varieties were exhibited. *Verbena King of Scarlets* was also noted. Silver-gilt Flora medal.

Zonal *Pelargonium* Mrs. A. M. Beck came from Mr. J. C. Beck, Henley-on-Thames. The variety is of rich crimson-scarlet shade with a fine tuss.

*Carnations* such as *Cæcilia*, rich yellow; *Lady Hermione*, salmon; and *Yaller Gal*, came from Martin E. Smith, Esq., Warren House, Hayes (gardener, Mr. C. Bick).

Garden Pink Snowdrift was finely shown in pots by Mr. James Douglas, Great Bookham, who had the hybrid *Dianthus Lady Dixon*.

#### AWARDS.

The following each received the award of merit:—*Peonia Nellie* (Single).—This is perhaps one of the largest we have seen. It is a single-flowered variety, the handsome blossoms spreading out to the size of a dinner plate; satin-rose in colour, with a tuff of golden anthers in the centre. The plant, too, is very vigorous, the huge flowers erect on stems 3 feet high as shown, thus testifying to an even greater vigour in the growing plant.

*Peonia Mrs. French Sheldon*.—Unfortunately, we overlooked the variety until too late. We would like to see a flower of it. These two were from Messrs. Kelway and Son, Langport, Somerset.

*Carnation Yaller Gal*.—This would appear an American name for an English-raised flower. We may briefly refer to it as a dwarf *Cæcilia* with more of the *Malmaison* in the flower perhaps. The foliage is not typical of this latter group. From Mr. Martin Smith, Hayes, Kent.

*Begonia mauritiana speciosa*.—A rather loose growing, trailing variety, with double flowers of orange red hue. It will probably be serviceable in baskets and for the larger window-box arrangement. From G. T. Morris, Esq., Dunstan, Hendon.

*Rose Maharajah*.—A splendid dark single-flowered variety that will make a most effective pillar or garden Rose. The flowers are 4½ inches across, very firm in texture, and probably unique as a very dark single Rose. The colour is very dark crimson, with a heavy bloom upon the petals that adds to the intense colouring. From Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester.

*Dianthus call-alpinus*.—A beautiful hybrid alpine Pink, the parents of which are D. *callizonus* and D. *alpinus*. The hybrid is well marked and about midway between the two parents, and may briefly be described as a profuse flowering D. *alpinus*. The shining leaf tuft is that of the latter species, the more rigid foot-stalks, the calyx, and coloured zone to the blossoms partake of D. *callizonus*. The flowers are 1 inch across, rose-carmine, with crimson zone in the

centre. A very beautiful and interesting hybrid. From the raiser, Mr. G. Kenne, Keston, Kent.  
*Hesperis matronalis lilacina plena*.—This is by no means a novelty, though scarce. It has spikes of lilac-coloured flowers. It is quite as free in flowering and as vigorous as the other forms of the well-known double Rocket. From Lord Aldenharn, Elstree, Herts (gardener, Mr. E. Beckett).  
*Rosa austriaca striata*.—A more or less striated form of the Austrian Briar, the orange and yellow in some flowers mingling quite freely. A pretty and effective variety. From A. Tate, Esq., Downside, Leatherhead.

YORK GALA.

THIS is the forty-sixth year of the grand Yorkshire Gala, which was held on Wednesday, Thursday, and Friday last in the Bootham Field, York. It was a better exhibition than last year, and the opening day was favoured by fine weather. On the whole, competition in the classes was keen. The York show is famous for its plant groups, and this year they were splendid, six competing for the prizes offered for a group occupying 300 square feet. The first prize this year was won by Messrs. Artindale of Sheffield. The Pelargonium plants, which are a feature here, were again well shown, although we missed the show or fancy varieties. Fruit was fairly good, and the same may be said of Roses. Plants of Fuchsias, Calceolarias, &c., were very good, and there were some excellent trade exhibits. Sir Christopher Milward is still chairman, and Mr. Fred Arey is secretary, and to their united efforts much praise is due.

PLANTS.

Group of miscellaneous plants: Messrs. Artindale and Son, Sheffield, won the first prize in the great group class with a very beautiful arrangement. Specimen plants, well grown and finely coloured, of Crotons, Lilioms, Palms, and Abutilons were arranged upon a groundwork of smaller similar plants, together with Caladiums, Kalacoches, Carnations, Ferns, &c.; Mr. W. Curtis, gardener to James Blacker, Esq., Thorpe Villas, Selby, was second, with a group somewhat similar to the first prize one, but the effect was not so pleasing, and the plants not so finely coloured; Mr. W. Townsend, gardener to E. B. Faber, Esq., M.P., Belvedere, Harrogate, was third with an excellent group, though somewhat sombre; Mr. J. S. Sharpe, Almondsbury, Huddersfield, was fourth; and Mr. W. Vause, Leamington, fifth. There was one more exhibit in this class.

For a similar, though smaller, group (200 square feet), Mr. W. Vause, Leamington, was first with a very attractive display of quiet colouring. Palms and Ferns were largely used, and white Lilies blended admirably with their greenery; second, Mr. J. S. Sharpe, Almondsbury, Huddersfield; third, Mr. G. Cottam, Alma Gardens, Cottingham. In this group was a small pool, although this hardly added to the general effect, for it was nearly hidden. Much care had evidently been spent upon this group; fourth, Messrs. R. Simpson and Son, Selby.

Messrs. Cypher and Son, Cheltenham, won the first prize with magnificent specimen plants in each of the following classes: Nine stove or greenhouse plants (second, Mr. W. Vause); single greenhouse plant (second, Mr. James Sunley); six fine foliage plants (second, Mr. Vause); three ornamental plants (second, Mr. Vause).

Messrs. Simpson and Son were first for a single specimen Croton and also for three specimeo Crotons, Mr. W. Townsend, Harrogate, being second in the latter class, and Mr. J. S. Sharpe in the former.

Single stove plant: First, Mr. Vause, Leamington. Mr. Vause was also first for three stove or greenhouse plants, Messrs. Cypher being second.

Twelve zonal Pelargoniums: First, Mr. H. Pybus, with trained specimen plants, Sir H. Stanhope being finely flowered; second, Mr. J. Sunley.

Six zonal Pelargoniums: First, Mr. H. Pybus, Mrs. Kelly and Mrs. Turner being the best; second, Mr. George Lee, York.

Four zonal Pelargoniums: First, Mr. George Lee; second, Mr. H. Pybus; third, Mr. J. W. Clarke.

Three double Ivy-leaved Pelargoniums: First, Mr. H. Pybus, with Mme. Crouse and Priuce of Wales as the best; second, Mr. J. W. Clarke.

Six double Pelargoniums: First, Mr. George Lee, with Phœbus and General Billet as the best; second, Mr. J. W. Clarke.

Four double Pelargoniums: First, Mr. George Lee, with excellent Mme. Thibaut; second, Mr. J. W. Clarke.

Group of Fuchsias: First, Mr. George Lee, York, with some splendidly bloomed plants; second, Mr. George Styan, York, with smaller plants well arranged; third, Mr. J. W. Clarke, York. Mr. Clarke was first for a specimen Fuchsia.

Four exotic Ferns: First, Rev. G. Yeats (gardener, Mr. Snowden), with a splendid Adiantum Williamsi and others; second, Mr. James Archer, his Davallia canariensis being very good; third, Messrs. R. Simpson and Son.

The Rev. G. Yeats was first for a single specimen of exotic Fern with Davallia hirta cristata.

Six hardy Ferns: First, Mr. Thomas Nicholson, with Lastrea f. l. grandiceps and Polystichum proliferum, very good; second, Messrs. R. Simpson and Son, Selby.

Messrs. Walshaw and Son, Scarborough, were given first prize for a group of Canoas.

ROSES.

Collection of Roses in pots: First, Mr. J. D. Hutchinson, Kirby Moorside, with fairly well-flowered plants, La France being the best, nicely arranged; second, Mr. H. Pybus, Monkton Moor, Leeds.

Mr. H. Pybus was first for six distinct Roses in pots, Mme. Gabrielle Luizet being the best; second, Mr. J. D. Hutchinson. Mr. Pybus was also first for four distinct Roses in pots, Mr. Thomas Hume, York, being second, and Mr. Hutchinson third.

Seventy-two Roses, not less than thirty-six varieties: First, Messrs. R. Harkness and Co., Hitchin, with some beautiful blooms. Some especially good were Crown Prince, Maréchal Niel, Golden Gate, Mrs. Edward Mawley, and

Cleopatra; second, Mr. George Mount, Canterbury, with, on the whole, rather small blooms, although some were very fine; third, Messrs. J. Townsend and Sons, Worcester; fourth, Messrs. D. Prior and Son, Colchester. There was one more entry.

Forty-eight Roses (distinct): First, Mr. George Mount, Canterbury, Mrs. E. Mawley, Mrs. J. Laing, and Golden Gate were lovely blooms; second, Messrs. D. Prior and Son, Colchester, Mme. Lacharme being perhaps the finest; third, Messrs. R. Harkness and Co. The Roses in this class were a good deal inferior to those in the preceding.

Thirty-six Roses (distinct): First, Mr. George Mount, Canterbury, who had excellent Mrs. J. Laing, Mrs. E. Mawley, Clara Watson, Rainbow, and others; second, Messrs. D. Prior and Son, Colchester; third, Mr. George Prince, Longworth, Berks; fourth, Messrs. R. Harkness and Co.

Twenty-four Roses (distinct): First, Mr. George Prince, with lovely blooms of Comtesse de Nadaillac, Maréchal Niel, White Maman Cochet, Mrs. E. Mawley, &c.; second, Mr. George Mount; third, Messrs. D. Prior and Son, Colchester.

Eighteen Roses (distinct): First, Mr. George Prince, Caroline Testout, Maman Cochet, and Medea being well shown; second, Messrs. D. Prior and Son; third, Mr. George Mount.

Twelve white and yellow Roses: First, Mr. Mount, Frau Karl Druschki was finely shown; second, Mr. George Prince, with Medea as his best; third, Messrs. D. Prior and Son.

Eighteen Roses (amateurs): First, Mr. William Hutchinson, with fairly good blooms; second, Mr. R. Park, with much inferior ones.

Twelve Roses (amateurs): First, Mr. R. Park, with good blooms, especially of Mrs. Mawley; second, Mr. William Hutchinson; third, Colonel Mellish.

Twenty-four bunches of garden Roses (open): First, Mr. George Prince, with some beautiful bunches of Bellefleur, Harrisoni, Papillon, Carmine Pillar, and others; second, Mr. George Mount; third, Messrs. J. Townsend and Son.

Twelve bunches of garden Roses (amateurs): First, Colonel Mellish; second, Mr. W. Hutchinson; third, the Marquis of Northampton.

CUT FLOWERS.

Twelve bunches of stove and greenhouse flowers: First, Mr. Whitehead, Deighton Grove, York (gardener, Mr. G. W. Richardson); second, Lady Battie Wrightson (gardener, Mr. G. A. Keywood). In a similar class, with Orchids excluded, Mr. Alderman, gardener to J. D. Ellis, Esq., Worksop, was first.

Collection of hardy cut flowers: First, Messrs. Harkness and Son, Bedale, with a splendid display of Poppies, Pyrethrums, Eremuri, Irises, &c., boldly arranged; second, Messrs. G. Gibson and Co., Leeming Bar, Bedale, with a fine bank of flowers that would have been improved by the inclusion of more light coloured ones; third, Mr. G. Cottam, Cottingham.

Twenty-four bunches of hardy border flowers: First, Mr. J. S. Hutchinson, with an excellent lot of really good flowers; second, Messrs. Harkness and Son, Bedale; third, Messrs. Gibson and Co., Bedale. Campanula glomerata dahurica, rich violet colour, in the latter display was very fine.

Mr. W. Hutchinson was first for twelve bunches of hardy flowers; Colonel Mellish, Worksop, being second. Messrs. Harkness and Son, Bedale, were first for eighteen bunches of Pæonies.

In the class for bouquets, Messrs. Perkins and Son, Coventry, and Messrs. W. Artindale and Son, Sheffield, were first and second respectively in all the principal classes. The hand bouquets from Messrs. Perkins were very beautiful. Messrs. Artindale were given the first prize for the best exhibit of floral designs, and they were also first for a hand-basket of cut flowers, and for a similar exhibit, Orchids excluded. They were first also for a basket of cut Roses. Messrs. Perkins won the first prize in all these classes, and Messrs. Artindale were second in each case.

ORCHIDS.

Table of Orchids: First, Messrs. James Cypher and Sons, Cheltenham, with an attractively arranged display, the Cymbidiums, Oncidiums, and Odontoglossums proving very effective; Mr. John Robson, Altrincham, was second.

Ten Orchids in bloom, distinct: First, Messrs. James Cypher and Son, Cattleya Mossiae and Vanda coerulea being two of the best; second, Mr. John Robson; third, Mr. W. Lewis.

Six Orchids in bloom, distinct: First, Messrs. Cypher and Son; second, Mr. John Robson. Messrs. Cypher were also first for three Orchids in bloom.

Six Orchids in bloom (amateurs): First, Mr. W. Furniss; second, Mr. W. Lewis. For three Orchids in bloom (amateurs) we could find no first prize-winner; second, Mr. J. Yates. Miss Barstow was first among amateurs for a single specimen, showing Dendrobium thysiflorum.

FRUIT.

Decorated table of ripe fruit: There were only two exhibits in this class, the first prize being won by Mr. Goodacre, Elvaston Castle Gardens, Derby, whose table gained 116 points out of a possible 136. Nectarine Elruge, Pig Brown Turkey, Peach Violette Hâtive, and Apple Lady Sudeley, were the best dishes. The decorations of Odontoglossums and Masdevallias were very pretty. Mr. Robert Dawes, gardener to the Hon. Mrs. Ingram, Temple Newsam, was second with 112 points, only four points behind Mr. Goodacre. The decorative effect was not so good as the first prize table. Grape Madresfeld Cont, Nectarine Early Rivers, and Melon Royal Favourite were excellent.

Collection of fruits, ten kinds: First, Mr. Goodacre, Lord Napier Nectarine being good; second, Mr. Robert Dawes, Brown Turkey Fig being the best dish.

Six kinds of fruits: First, Mr. J. C. McPherson, gardener to the Earl of Lonsborough, the Queen Pine being a very good fruit. Lord Napier Nectarine was also good. There were no more entries.

Four kinds of fruit: First, Mr. McPherson with good Black Hamburg Grapes; second, Mr. J. Easter, Nostell Priory Gardens, Melon Hero of Lockinge being excellent.

There was one Pine-apple shown in a class restricted to this fruit, but the judges did not deem it worthy of a prize.

Three bunches of Black Hamburgh Grapes: First, Mr. J. P. Leadbetter, Tranby Croft Gardens, with splendidly coloured bunches; second, Mr. Goodacre; third, Mr. Murchison, Wetherby.

Three bunches of White Grapes: First, Mr. Murchison, Wetherby, with fair Buckland Sweetwater; second, Mr. McPherson with very green Muscat of Alexandria; third, Mr. W. Pilgrim, Bodorgan Gardens, Anglesey, with Foster's seedling.

Six Peaches: First, Mr. E. Ashton, Latham House Gardens, Ormskirk, with Royal George; second, Mr. A. E. Sutton, Castle Howard Gardens, York, with Hale's Early; third, Mr. D. Williams, Duncombe Park Gardens, Helmsley.

Six Nectarines: First, Mr. A. R. Searle, Castle Ashby Gardens, Northampton, with Early Rivers; second, Mr. McPherson with the same variety; third, no name.

Scarlet fleshed Melon: First, Mr. J. C. McPherson with Gunton Scarlet; second, Mr. James Brown, Oxford House Gardens, Market Rasen, with Lord Derby; third, Mr. J. Easter with Frogmore Scarlet.

Green-fleshed Melon: First, Mr. Ritchings, Highlands, Guernsey, with Sutton's Superlative; second, Mr. McPherson, with Royal Jubilee; third, Mr. James Brown, with Royal Jubilee.

White-fleshed Melon: First, Mr. McPherson, with Frogmore Seedling; second, Mr. G. A. Keywood, Cusworth Park Gardens, Doncaster; third, Mr. Pilgrim, Bodorgan Gardens.

Mr. Beckett, Aldenham House Gardens, won the first prize, and Mr. T. A. Bolton, Barn Hill, Beaumaris, was second, for a collection of vegetables. The prizes were given by Messrs. Sutton and Sons.

In a similar class (prizes offered by Messrs. Webb and Sons), Mr. Beckett was again first; second, Mr. E. Ashton, gardener to the Earl of Latham.

NON-COMPETITIVE EXHIBITS.

Mr. George Boyes, Leicester, made a pretty display with Tree Carnations, both cut flowers and plants in pots.

Messrs. Mack and Miln, Darlington, showed a group of miscellaneous flowering and foliage plants, Carnations and Gloxinias being conspicuous.

The group of plants from Messrs. Kent and Brydon consisted largely of Rhododendrons, Genistas, Verbenas, Lilioms, &c., all arranged in masses between suitable greenery, which proved very effective.

Messrs. William Cutbush and Son, Highgate, N., exhibited Carnations, Malmaison Duches of Westminster being particularly fine, Ericas, Verbenas, Rose Dorothy Perkins, and yellow Arums, the whole group making a delightful display. Messrs. Cutbush also exhibited rock plants, which were attractively arranged on a rockery.

Messrs. Cibrans, Altrincham and Manchester, showed a group (in which the plants were given plenty of room) that comprised Dracenas, Crotons, Aralias, and other foliage plants, relieved by masses of Malmaison Carnations, Roses, &c.

Messrs. Walshaw and Son, Scarborough, made a bright group with Lilies of the Valley, Verbenas, Begonias, Pelargoniums, Lilioms, &c.

Messrs. W. J. Brown, Stamford, exhibited a bright lot of Pelargoniums, Roses, Heliotrope, Verbenas, &c.

The hardy flowers from Messrs. Dicksons', Chester, made a brilliant display, Pæonies, Aquilegias, Poppies, Lilies, Pyrethrums, &c., being chiefly responsible.

Pæonies and Roses from Messrs. Paul and Son, Cheshunt, were very beautiful. The Peony blooms were large and fresh, and made a charming exhibit.

In the extensive group of flowering and foliage plants from Messrs. Richard Smith and Co., Worcester, Bamboos made a pleasing background, while in front Clematis, Lilioms, Kalmias, Pyrethrums, and other flowers were arranged with taste and skill. Messrs. Richard Smith also showed a bank of hardy flowers, in which the Poppies, Irises, and Pyrethrums were excellent.

Mr. A. F. Dutton, Bexley Heath, showed a beautiful lot of Tree Carnations, the long-stemmed blooms being most attractively displayed in tall vases. Fair Maid, piok; G. H. Crane, scarlet; Norway, white; and Harry Fenn, crimson, were perhaps the best of several charming varieties.

Mr. Henry Brownhill, Sale, exhibited new hybrid Chrysanthemums (Marguerites) and Achillea Coup d'Argent. The former were shown in several good shades of yellow, and there were both double and single.

Mr. J. Wood, Hardy Plant Nurseries, Kirkstall, Leeds, showed alpine plants arranged upon a rockery; and Messrs. Hewitt and Co., Birmingham, exhibited Tree Carnation blooms in vases.

Messrs. Hewitt and Co., Birmingham, made a good display with hardy flowers and Tree Carnations.

Messrs. R. H. Bath, Limited, Wisbech, showed some splendid Pæonies and Pyrethrums in many varieties.

Messrs. Charlesworth and Co., Bradford, exhibited a group of hybrid Orchids that contained some beautiful plants, e.g., L.-C. Hippolyta Phoebe, L.-C. canhamiana alba, L.-C. Martinetti notiiior, L.-C. Fascinator, and other.

Mr. Robert Sydenham, Tenby Street, Birmingham, showed a beautiful lot of Sweet Peas in vases, and also his rural table decorations; the flower supporters enable the flowers to be so disposed as to add greatly to the effect of the table decoration.

Mr. W. Edwards, Sherwood, Nottingham, showed Edwardian flower holders for table decoration.

Mr. George Yeld, Clifton Cottage, York, exhibited some charming hybrid Irises and Hemerocallis, all raised by himself. The I.V.O. Kill All Chemicals Company, Burmantofts, Leeds, exhibited their insecticides and fumigators.

CARDIFF AND COUNTY HORTICULTURAL SOCIETY.

THE sixteenth annual flower show of this society will be held on Wednesday and Thursday, July 27 and 28, in the Sophia Gardens, Cardiff, by kind permission of the Marquess of Bute. The secretary is Mr. Harry Gillet, 66, Woodville Road, Cardiff.

**CRAWLEY AND DISTRICT GARDENERS' ASSOCIATION**  
The members of the Crawley and District Gardeners' Mutual Improvement Association and friends, to the number of about sixty, visited the beautiful grounds and gardens at Tilgate, by the kind permission of Mrs. Nix, on Tuesday evening, the 7th inst., and spent a most enjoyable and instructive time in the company of Mr. J. A. Nix, the president of the association, who very courteously conducted the visitors over the estate, and pointed out and explained the many botanical and other beauties that here abound. The members were driven to Tilgate in brakes, and their arrival was a lesson in punctuality, six o'clock—the appointed time—chiming as the mansion was reached. Mr. Nix personally received the visitors at the entrance to the conservatory, inside of which tea had been generously and thoughtfully provided.

**UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.**

The monthly meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. Charles H. Curtis presided. Six new members were elected. The death of Mr. Edwin Isted, Hove, Brighton, was reported. Mr. Isted was a comparatively young member, but having left a widow and three young children unprovided for, the committee granted £5 14s. 7d. from the benevolent fund, to be added to £4 5s. 5d., being the amount standing to the late member's credit, thus bringing the amount up to £10 for the widow. The sick pay for the month was £29 14s.

**OBITUARY.**

**THE REV. CHARLES WOLLEY-DOD.**

It is with great regret we announce the death of Mr. Wolley-Dod, M.A., V.M.H. The sad news was brought to us at the moment of going to press, and, though we hoped that this distinguished scholar and gardener would have been spared many years to work amongst the flowers he loved so well, this was not to be. His great knowledge of flowers in general, the strong and simple language in which he gave expression to his thoughts, and great experience have helped many a groping amateur and earnest horticulturist. In the *Times* of Wednesday last the following reference is made to Mr. Wolley-Dod:

"The Rev. Charles Wolley-Dod, who died at Edge Hall, Malpas, yesterday, at the age of seventy-eight, was the representative of an old Cheshire family dating from the time of Henry II. He was born in 1826. His father, the Rev. J. F. T. Hurt, of Allen Hill, Derbyshire, married Miss Mary Wolley, and assumed by Royal sign-manual the surname and arms of Wolley. Mr. Charles Wolley-Dod, who assumed the double name by Royal licence in 1868, was educated at Eton on the foundation, and became in due course a Fellow of King's College, Cambridge. He was ordained deacon by the Bishop of Lincoln in 1854, but never proceeded to priest's orders. In 1850 he married Frances, daughter of the Rev. Pelly Parker of Hawton, Notts, and grand-daughter of Mr. T. C. Dod, of Edge Hall. From 1851 to 1880 he was an assistant-master at Eton. Since his retirement he had lived on his estates, devoting himself to horticulture, and winning the Jubilee gold medal of the Royal Horticultural Society. He was on the commission of the peace for the county."

**His Majesty the King.**—We are informed that the King will open the new Hall of the Royal Horticultural Society in the last week in July.

**The "Botanical Magazine."**—We understand that this great publication will be hereafter edited by Mr. W. B. Hemsley.

**A new Poppy.**—I have before me flowers of a very fine Oriental Poppy. They are from Emil Singer of Hamburg-Uhlenhorst. It is named Princess Victoria Louise. The flowers are of a peculiarly bright rosy salmon colour, large and of good substance, standing up well on stiff stems, and though received in England on the 8th inst., they are still quite fresh, which proves that they last

better than most Poppies. The plant is said to be of a dwarf growth, and produces from twenty-five to thirty blooms on each plant. It should make a useful variety for cut blooms for market, and in the garden it will be a most valuable addition to the herbaceous border.—H.

**A glut of fruit.**—There does not seem to be any special reason to assume that fruit generally on trees will show an excessive crop this season. Whilst flowers were very abundant, and the set which followed it seemed to be very great, the fall since has been so considerable as to have thinned the prospective crop beyond all anticipation. It does seem at present that the heaviest crops of the year will be those of Gooseberries and Strawberries. But let these be ever so plentiful, they will hardly create a general glut of fruit. I have heard from many directions—as I have also seen—of the excessive falling of fruit embryos on Apples, Pears, Plums, and Cherries. Nature having administered a severe thinning to the prospective crop already, there may be enough left to furnish a fair crop, and even a profitable one; but a glut crop seems improbable. We shall hear more of this natural thinning, no doubt, later, and it will be attributed to many diverse causes.—A. D.

**Early Dahlias.**—Messrs. Dobbie and Co. of Rothesay are always well to the front with any of their specialities. It is probably a record to see really good blooms of Dahlias the first week in June. Some were shown at the Temple, but those a week later were a great improvement in quality and in variety. Among the collection shown at the Royal Botanic Gardens on the 8th inst. were: Albion, pure white; Mrs. Mawley, yellow; Ajax, salmon; Mrs. W. Cuthbertson, deep purple; Mabel Tullock, pink with light primrose shade at base of florets; Pheneus, good scarlet; Aunt Chloe, very dark, almost black; Isis, bright scarlet; F. A. Wellesley, cerise, with a bright metallic shade; J. W. Wilkinson, bright crimson; H. J. Jones, light primrose-yellow at base shading off to bronzy pink, a pretty shade of colour and good florets. It may be said that they are rather out of season, yet it is interesting to note that good blooms may be had so early. The great drawback with Dahlias usually is that by the time they arrive at their best an early frost often cuts them off. With accommodation under glass, plants may be potted on and got forward, so that when it is safe to plant out they would soon begin to bloom. The Cactus Dahlias are always much appreciated as cut flowers, and it should prove profitable to grow a few of the best and most distinct sorts under glass for that purpose.—H.

**ANSWERS  
TO CORRESPONDENTS.**

**RULES FOR CORRESPONDENTS.**

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—L. B. Wither.—1, Juniperus communis; 2, Pseudotsuga Douglasii; 3, Cedrus atlantica; 4, Thuja dolabrata; 5, Sequoia sempervirens; 6, Cupressus pisifera.—A.—1, Pyrus salicifolia; 2, Fraxinus Ornus (the Manna Ash).—A. T. Maw.—1, too much withered for identification; 2, Iris sibirica var. orientalis; 3, Iris sibirica; 4, Pyrus germanica; 5, Amelanchier canadensis; 6, Eleagnus pungens; 7, Corylus maxima var. atropurpurea; 8, probably Prunus Cerasus var. flowers required for correct determination.—Miss Empson.—The specimen sent is Ceanothus velutianus, to which C. dentatus and C. papillosus are nearly related. Your specimen must have been indeed a charming feature, the description making one long for the genial climate of South Devon, as in the neighbourhood of London this species cannot be depended upon as a shrub in the open ground.

**French Beans attacked by insects** (J. B. ROSCOE).—The small white creatures you find on the seeds of your French Beans which are just germinating are not

young woodlice, but belong to the family of the "spring-tails," though this species (*Lipura ambulans*) and several others have not the power of springing. Besides these insects there were a number of small worms belonging to the family Enchytraeidae, a family nearly allied to the earth-worms, which are often very destructive to the roots of plants, so that what with the little insects and the worms I am not surprised that your crop is a failure. If it is hopelessly ruined, I should pour some boiling water down the rows, or a very strong solution of nitrate of soda or of common salt. Whatever you use, drench the ground thoroughly. If the crop is not quite past hope you might try watering with lime water. This will kill the worms, but I am not so sure about the spring-tails.—G. S. S.

**Treatment of Hibiscus** (H. ROGERS).—The genus Hibiscus is such an extensive one that we can only assume that your question refers to *H. rosa-sinensis*. If so it can be readily propagated from cuttings of the young growing shoots, taken in the spring or early summer months, dibbled securely into pots of open soil, such as equal parts of loam, leaf-mould, or peat and sand, the whole being well incorporated together. After putting in the cuttings, a good watering through a fine rose should be given, and then they must be placed in a close propagating case, or covered with a bell-glass in a shaded part of the greenhouse, or in a slightly warmer structure if you have any. Hibiscus *rosa-sinensis* is usually treated as a warm house plant, but it will succeed throughout the summer in the greenhouse or even out of doors. It requires much the same treatment as a Fuchsia, that is to say, if repotting is needed it should be done in the spring, the most suitable compost being two parts loam to one part each of leaf-mould and well-decayed manure, with a little sand. If not repotted a dose of weak liquid manure should be given about once a fortnight as they begin to grow. This Hibiscus may be wintered in a greenhouse with a minimum temperature of 40°, but during that period it must be kept fairly dry at the roots; indeed, only sufficient water to prevent it from suffering should be given.

**Raising seedling Rhododendrons** (A. MARSHALL).—It is an easy matter to raise Rhododendrons from seed, as the seeds germinate readily in about a fortnight; but the treatment of the tiny seedlings afterwards calls for a considerable amount of time and thought. The seed can either be sown under glass in well-drained pans or boxes, or outdoors in a properly prepared bed. From April to June is the best time to sow. The soil in both instances must be finely sifted, sandy peat, made moderately firm, and it is all the better if it is sterilised beforehand to kill the seeds of weeds or any insect life that may be present in it, though this is not absolutely necessary. If you have a greenhouse or frame at command sow your seeds indoors in pans or boxes, as they are more under control, and are also sheltered from heavy rains, which sometimes play havoc with seedling Rhododendrons in the open. Heat is not necessary to raise the seeds, though a slight bottom warmth assists germination; but they must be removed to a cooler place as soon as they are up, or otherwise they will become drawn and weak. When the soil is put in the pans it should be pressed firm and made perfectly smooth. It should then have a thorough soaking with water, and the seeds sown thinly on the surface, not being covered with soil in any way. As the seeds are very light, a watering before sowing saves them from being washed into heaps in the corners or lower parts of the soil. The first watering should be sufficient until the seeds have germinated, when they can be watered either by dipping the pan or box in water, or by using a water-pot with a very fine rose. Shading is necessary in the earlier stages until the seedlings have made their first pair of leaves, when it should be gradually removed and only given during periods of bright sunshine. Any material suitable for the purpose can be used for shading, but on a small scale a few sheets of white paper are as good as anything, as by using a thick paper for the seed boxes, and gradually working down to thin tissue paper, the requisite shading can be given without much trouble. During the winter the seedlings must be kept a little on the dry side, as too much moisture causes them to damp off. About the beginning of the following May, choosing dull, cloudy weather, prick the seedlings off into other boxes or a prepared bed, putting them about 2 inches apart each way, and using about the same soil as before, though an admixture of good loam, which must not contain lime, is beneficial. They can now stand for another year, or even two years, according to the growth they make, when they can be planted out in the open ground. Shading will not be necessary after the plants have become established in their new quarters. Seedling Rhododendrons take from five years to seven years before they flower, and, as a rule, do not bloom well before the eighth year. From the description of your plant it is probably *R. nobleanum*, a hybrid between *R. arboreum* and *R. caucasicum*, and, if so, would probably not come true from seed, though there is a likelihood of your obtaining some good things amongst your seedlings, a great deal, however, depending on what other Rhododendrons have been in flower at the same time near them, as they cross-fertilise very readily. If you wish to increase the plants you have, your best plan would be to get a nurseryman to graft a few plants for you, which most of them will do at a low cost. If you decide, however, to try and raise seedlings, you will find it an interesting, if slow, process, but you must always remember that they cannot be forced, and that constant care and attention are necessary for the first two years at least to ensure success.

**TRADE NOTE.**

MESSRS. LIBERTY AND CO. (inventors and manufacturers of artistic wares and fabrics) of London and Paris were awarded the gold medal for their exhibit of new and original garden pots, sundials, &c., in Frost-proof Terra-cotta Ware at the Royal Botanic Society's show at Regent's Park on the 8th inst.

\* \* \* The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

# THE GARDEN

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[JUNE 25, 1904.]

## HIMALAYAN RHODODENDRONS AND THEIR HYBRIDS.

THE last meeting of the Horticultural Club until October next was the most instructive that has taken place for some time past. It was the occasion of a paper by the chairman, Sir John Llewelyn, Bart., on "Himalayan Rhododendrons," which of recent years have acquired a more general interest than heretofore, and this interest has been greatly stimulated by the raising of many beautiful hybrids—Pink Pearl, the queen, perhaps, of a queenly throng. As the paper will appear in full in the Journal of the Royal Horticultural Society, and also, after then, in our pages, it is not necessary to refer to more than a few of the more important points. It was in a way a memorable evening. Among the guests were Sir George Watt, who spoke of the Rhododendrons in India; Mr. F. W. Moore, curator of the Glasnevin Botanical Garden; Mr. W. Watson, curator of the Royal Gardens, Kew; and Mr. Tutchet, the assistant director of the Hong Kong Botanic Gardens.

The desire to grow with success the Himalayan Rhododendrons and their hybrids is easily understood. One has only to think of the splendour of *R. arboreum*, the fine beauty of *R. Aucklandi*, and the rich colouring of *R. barbatum*, to rejoice that this noble race has not been passed unnoticed by the hybridist, whose achievements in the past have brought so much interest and beauty to the garden and conservatory. We probably owe Pink Pearl to the late Mr. J. H. Mangles, whose enthusiasm for the Himalayan Rhododendrons was unbounded, and who determined to raise a set of beautiful hybrids; and we think also of the raisers of the present day—the wonderful hybrids shown recently in the Drill Hall by Mr. H. A. Mangles—Beauty of Littleworth, and from Mrs. J. H. Mangles, Valewood, Haslemere, Dawn, which may be compared to Pink Pearl itself for size of flower-cluster and beauty of colouring, and we are not forgetful of the work of Mr. Gill, gardener to Mr. Shilson of Tremough, Penryn, Cornwall, who, as Sir John pointed out, has given us some notable hybrids in *R. Shilsoni* (*Thomsoni* × *barbatum*), Beauty of Tremough, Glory of Penjerrick, the hybrids of *R. griffithianum*, and Duke of Cornwall, a novelty of this year.

The hybrid *R. kewense*, which was raised at Kew between *R. griffithianum* and *R. Hookeri*, is one of the best of its race—its flowers rose-tinted, and in profusion during April and May. Sir John made direct allusion to the hardiness of these hybrid Rhododendrons—the word is so comparative a term, so liable to be upset under conditions which are only too well known to British horticulturists that it must be used with the large reservation that several species are quite hardy enough for the conditions they usually find in the climate and soil of South Wales, and still more so in the extreme south-western corner of England, Cornwall, and in Ireland. The experience of the lecturer was that "If the wood is well hardened after the summer's growth they will stand any amount of winter frost—28° below freezing-point—and that the greatest risks are incurred by the species whose leaf action is early, and thus is more liable to be checked by our May frosts. Observe I speak of leaf action rather than of the inflorescence. March and April is the flowering period of our most common species—*R. arboreum*, *R. barbatum*, *R. Thomsoni*, *R. ciliatum*, *R. Campbelliæ*, and *R. campanulatum*, and few seasons pass without loss of trusses of the bloom; but as leaf action will not begin until the end of May or early in June, the plant is none the worse. There is no greater delight to the lover of his favourites than to see the way they come up again to the scratch after the knock-down blow in the first round between, say, *R. barbatum* and *v. Jack Frost* on St. David's Day."

Sir John stated that soil is probably a more important factor in the treatment of the Rhododendron than climate, and with this we believe all Rhododendron growers will agree. The ideal soil is a cool peaty or loamy formation, in which the plant can shade its roots. Another point which the hybridist may well bear in mind is the prolonging of the flowering season, surely an object worth aiming at. "We all do it—rosarians, Chrysanthemum and Carnation growers, and all others. Beginning with the hybrid classes of *R. nobleanum* and *R. Jacksoni*, which begin blooming in November and December and continue till the spring, the first species to come out is *R. barbatum*, so called from the hairy petiole of the leaf. The flowers develop in February, and they are at their best throughout the month of March, the truss being rather closely packed with flowers of a fine blood-red colour. It is followed in March by *R. Thomsoni*, a

favourite species, and by a variety or hybrid called *Campbelliæ*."

The beauty of many Rhododendrons from the Himalayas is not concentrated in the flower, for the leaf can claim much of it. As Sir John said, many species of Rhododendron are worth cultivating for the foliage alone, the lower side of each leaf being covered with a rich red-brown or white tomentum, the size and shape of each leaf varying with the particular species, and attaining in the case of *R. Falconeri* a large dimension, and as the plants attain size and height the colour effect of the foliage under the winter sun is very striking even at that season of the year. Mr. Moore also alluded in the course of his interesting speech to the beauty of the leaf colouring of many of the species of Rhododendron.

As there are doubtless many would-be growers of the Himalayan Rhododendron, it may instruct and interest to give the names of those sorts which habitually bloom well with Sir John Llewelyn at Penllergare, Swansea. These really seem to thrive: *Arboreum* (red, white, or pink), *barbatum*, *Thomsoni*, *grande*, *Falconeri* and its variety *eximeum*, *niveum*, *campanulatum*, *campylocarpum*, *griffithianum* or *Aucklandi*, *ciliatum*, *Campbelliæ*, *glaucum*, *setosum*, *Anthopogon*, *cinnabarinum*, and *triflorum*. Those that have flowered under shelter are *Dalhousiæ*, *Edgeworthi*, *Maddenii*, *Nuttallii*, and *formosum*.

Here are a few further points which hybridists should think of. Sir John said: "The hybrid race we have hitherto raised seem to be capable of a further improvement in the prolongation of the flowering season, in the size, and in the colouring of the bloom. Hardy yellows are undoubtedly to be had from *R. campylocarpum*, and I cannot think the finest red forms of *R. arboreum* have yet been sufficiently used. *R. griffithianum* or *Aucklandi*; is undoubtedly a useful parent, and we are destined in the near future to see a very noble family of children from so august a mother. Also in the *Barbatum Thomsoni* cross I have a useful strain, which seems to me to unite the good qualities of both parents in their grand colour and in their early bloom." A warm tribute of praise was given to the exhibition of hardy hybrid Rhododendrons staged by Mr. John Waterer in the Royal Botanic Society's garden in Regent's Park, and we are glad that Sir John condemned grafting as unsatisfactory and unnecessary. "By layering the true plant is got on its own roots, and it is a good and rational mode of increase. Whenever a plant

can be induced to layer down its lower boughs so that they may form rootlets a double advantage is obtained, as in addition to the opportunity for removing rooted pieces a better shade is afforded to keep the soil cool round the stem of the parent." Sir John concluded his excellent lecture by hoping, and we heartily echo the wish, "that as the years roll on we may see fresh crosses and fresh breaks brought to our notice by the fostering care of generations of hybridists, who will, I think, be wise if they employ the agency of not only Himalayan species, but of hybrids from these, and especially the finer forms of the red *R. arboreum*." Mr. Moore spoke of the beauty of the Himalayan Rhododendrons in many of the gardens in Ireland. The helpful words of Sir John Llewelyn, Bart., Sir George Watt, and Mr. Moore will, it is hoped, stimulate a fresh interest in this beautiful genus.

### THE WISLEY GARDEN.

No members of a society have greater cause to rejoice for so large a return for so small an expenditure as the Fellows of the Royal Horticultural, who are in the happy possession of a garden of their own, a valuable publication in the Journal, a famous library, and opportunities for visiting interesting floral meetings and imposing exhibitions of flowers, fruit, and vegetables. But there is one priceless gift which we are glad to know many of the Fellows are taking full and proper advantage of, and that is the garden of the late Mr. G. F. Wilson, and known as the "Wisley Garden," which, it will be fresh in mind, was presented by Sir Thomas Hanbury, K.C.V.O. On a sunny day in last week we visited this retreat, amidst the Pines and Heather-covered commons of the beautiful Weybridge and Ripley surroundings, commons of Gorse, and Broom, and Fern, and waving Grasses, with the wild garden and fields, some 60 acres in all, which are now in the possession of the Royal Horticultural Society. We were gratified to find that this garden is not to be forgotten by the Fellows. The visitors' list reveals that something more than a passing interest will be taken in this fine possession, which, if handled aright, should be the means of greatly advancing practical and scientific horticulture. The visitors travel by motor and carriage, and in humbler conveyances. The garden is not so accessible as those not blessed with motor and carriage would wish. But horticulture is not possible in a convenient suburb; it must be undertaken in the fresh country air and amidst surroundings which detract little from the work of the students who begin their lives' duties in this school of gardening.

A summer day at Wisley is to the lover of all that is beautiful in Nature a day not likely to be soon forgotten. The drive over hill and dale, across common land fragrant with the breath of native flowers, and tree-shaded lanes, prepares the visitor for the charms of the wild garden which is the outcome of the experimental work of the late Mr. G. F. Wilson for over twenty years. The air was full of scents—from Lupins clustering in billowy masses by the Iris-lined ditches, now bright with trails of colour from the Siberian and Japanese species, Lilies in the Rhododendron groups, *L. rubellum*, a sea of pink, finer than we have hitherto seen it; Nymphaeas in the lake, Roses in profusion, the famous hedge of *Rosa rugosa* in full flower, and a variety of trees and shrubs which, unfortunately, were in many instances struggling for existence, and only the most judicious thinning out will save them from disfigurement. Roses

clustered over the little cottage on the hill top, and little grassy walks lead through aisles of Rhododendron and Azalea, Kalmia, and Perennetia, while here and there in some cool recess *Linnaea borealis* makes a carpet of growth. Probably in the time of the Primrose Wisley is most interesting; but in summer, when the Lilies are in beauty and Kämpfer's Irises lift their flowers above the lush margin by lake and pond, this is a pleasant garden, with lessons in every Ferry way to those willing to heed them. The Wisley Garden is not a garden in which things have been planted for the sake of creating a mere collection. The late Mr. Wilson studied the desires of everything in the garden, and only in this way has so great a success been assured with things difficult to please.

The council of the Royal Horticultural Society has lost no time in beginning the work which is to be carried on in the future. A house is in course of erection for the superintendent, Mr. S. T. Wright, with a committee room attached; large glass houses, with propagating pits, and the necessary erections for growing Figs, Vines, &c., which was so well done at Chiswick, are almost complete, the work having been entrusted to Messrs. Richardson and Co., the well-known horticultural builders of Darlington, and preparations are being made for trials of flowers and vegetables. A small trial of Pansies is very interesting, and we hope one on a large scale may be made next year to test the true worth of the many varieties that have been raised of recent years.

This new garden of the society will not be completed for its trials of fruits, vegetables, and flowers in a day. The plants in the wild garden will suffer unless they receive the same loving care as in the time of the late Mr. Wilson, and many acres must be tilled and the glass houses in working order before there can be much practical result. The danger in these days of hurry and bustle is a want of thoroughness in our undertakings. The council should see to it that this does not happen at Wisley.

### THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

#### ORIENTAL POPPIES.

From Swanmore Park Gardens, Bishop's Waltham, Mr. E. Molyneux sends a beautiful gathering of Poppies. The blooms are large, and some of them of really gorgeous colouring. Perhaps most vivid of all is Royal Scarlet, rich scarlet, very handsome; Blush Queen is rosy blush; Orientale, rich scarlet; Semi-duplex, a very large full flower, scarlet-red; Prince of Orange, of unusual colouring, a mixture of orange and apricot; Salmon Queen, red, tinged throughout with salmon; Beauty of Livermere, deep red; Brightness, vermilion; Duke of Teck, very large, bright red; Mrs. Marsh, orange scarlet, striped with white; W. A. Chilley, pale blush pink; Dahoney, deep ruby red; Bracteanum, deep cherry red. For rich colouring and bold effect in the garden at this time these Poppies are most valuable, and such a collection as Mr.

Molyneux sent shows well what grand varieties may now be had. The beautiful yellow Lupin Somerset, *Achusa italica superba* (a lovely blue), and *Iris sanguinea*, of blue-purple colouring, were also sent.

#### THREE LATE APPLES.

From Virginia Rectory, Virginia, Ireland, the Rev. Denis Knox writes: "This has been such a very scanty Apple season generally that I think it may interest you to have for your table a sample of three kinds, viz., Lane's Prince Albert, Hanwell Souring, and Old Northern Greening, to see how well they have kept. I have still a fair share of them."

Mr. Amos Perry, Winchmore Hill, London, sends a few very choice hardy flowers, among them the *Inulas I. glandulosa* and *Oculus Christi*, with their bold fringed flowers of deep yellow and orange. There are few nobler plants for the border and rougher parts of the garden than these—plants of commanding height and with flowers of intense colouring. The pretty little *Phlox ovata* reminds us of the charm of this race, and a more beautiful blue than Perry's variety of *P. canadensis* we have not seen. It is clear and fresh, and just the plant to mass in the rock garden. New varieties of *Papaver orientale* are springing up wholesale. Some are good and others poor; but of the former is *Carminea*, of which Mr. Perry sends flowers. The clear carmine colour is free from any purple tinge; it is a grand colour in the garden. We were glad to see *Iris douglasiana*; it is a flower of quiet beauty and soft yellow shade, almost white, delicately veined with purple, the whole plant of graceful growth.

#### HARDY AZALEA FLOWERS FROM MELROSE.

Miss Curle, St. Cuthbert's, Melrose, N.B., sends a basketful of flowers of the hardy Azalea, in which is shown the wonderful variety of colours that distinguish this brilliant group, and in a note is the following interesting information: "None of the bushes can be less than forty-four years old, and they may be more aged still. Nothing has been done to them for years. In many cases the stock had come up and threatened to destroy the bush. The apricot colour is very fine, and the bush has been a mass of flowers."

#### ABUTILON VITIFOLIUM.

A gathering of this lovely flower comes from Messrs. E. Hillier and Sons, of Winchester. There is nothing more perfect in the whole of the flower world than the soft lilac colouring of this *Abutilon*. Messrs. Hillier write: "We enclose a bunch of flowers of *A. vitifolium*, which grows here 350 feet above the sea level on a chalk hill. The bush, which is about 8 feet high, was planted out as a seedling about four years ago, and is now a glorious sight. It has not received protection from frost."

#### SIKKIM COWSLIPS AND OTHER FLOWERS.

Writing from Duns, Berwickshire, "H. M. B." says: "I am venturing to send a few flowers for your table. The Amethyst Hyacinths are, I fancy, somewhat neglected bulbs, as one does not see them often, and yet they are quite unique in colour at this time of year. The Sikkim Cowslips are all picked from self-sown plants, and grow very freely here, as also does the *Ourisia*. The latter ripens a great deal of seed every summer, but it will not germinate. Perhaps you would kindly advise me on this point. I should like to naturalise the *Ourisia* in a moist wood."

[Will someone who has succeeded in germinating seed of *Ourisia* kindly help our correspondent.—Ed.]

#### ORIENTAL POPPIES.

From Woodbridge Mr. Notcutt sends flowers of three varieties of *Papaver orientale*, viz., R. C. Notcutt, rich salmon-pink, very beautiful; Bobs, a good deal similar, but its salmon-pink petals

marked with large black blotches; and Lady Roscoe, a very handsome flower, and perhaps best described as salmon-scarlet.

**NOTES OF THE WEEK.**

**FORTHCOMING EVENTS.**

- June 27.—Isle of Wight (Ryde) Show.
- June 28.—Royal Horticultural Society's Drill Hall Meeting; Gardeners' Royal Benevolent Institution, Annual Dinner, Hotel Metropole, H. J. Veitch, Esq., in the chair, 7 p.m.
- June 29.—Chippenharn and Farningham Rose Shows; Richmond Horticultural Show.
- July 2.—Sutton (Surrey) Rose Show.
- July 6.—National Rose Society's Temple Show; Southampton (two days), Croydon, Hereford, Ealing, and Hanley (two days) Horticultural Shows; Ipswich Summer Show; Royal Botanic Society's Show; Beckenham Horticultural Society's Show.
- July 7.—Norwich Horticultural Show; Chipping Norton and Walton-on-Thames Rose Shows.
- July 9.—Windsor and Eton, Warminster, and Gloucester Rose Shows.
- July 12.—Royal Horticultural Society's Holland House Show (two days); Wolverhampton Floral Fête (three days).
- July 13.—Formby, Reading, Stevenage, Thornton Heath, and Harrow Rose Shows; Nottinghamshire Horticultural and Botanic Society's Show (two days).
- July 14.—Weybridge Flower Show; Highgate Horticultural Society's Show; Bath, Eltham, Helensburgh, and Woodbridge Rose Shows; Portsmouth Rose Show (two days).
- July 15.—Gresford and Ulverstone Rose Shows.
- July 16.—Manchester Rose Show.
- July 19.—Saltaire and Tibshelf Rose Shows.
- July 20.—National Sweet Pea Society's Show at Crystal Palace (two days).
- July 21.—Halifax Rose Show; National Carnation and Picotee Society's (Southern Section) Show.
- July 22.—Handsworth Horticultural Society's Floral Fête (two days).
- July 27.—Newcastle-upon-Tyne Summer Flower Show (three days); Carliff Summer Show (two days).

**Royal Horticultural Society—Examination in horticulture.**—The annual examination in the principles and practice of horticulture was held on April 20, 1904, when 190 papers were sent in. Three hundred marks were allotted as a maximum, all candidates who obtained 250 marks and upwards being placed in the first class. The total number of these was 33, or about 18.3 per cent. of the whole. Those who secured 200 marks and less than 250 were placed in the second class. Their number was 93, or about 49.2 per cent. Those who obtained 100 marks and upwards were placed in the third class, their number being 62, or about 32.4 per cent. There has been a slight decrease in the number of candidates, as 198 offered themselves in 1903, and 229 in 1902. This is probably the result of a somewhat more advanced syllabus. There has, however, been a considerable advance in the quality of the papers, as shown by the percentages; for in 1903 the first class was only 7.6 per cent., the second class 31.3 per cent., and the third class about 56 per cent. Year by year the students exhibit a better knowledge of practical horticulture, nearly all the questions bearing upon the culture of fruit trees and vegetables being this year well answered. Most of the candidates have also a good knowledge of artificial manures and their application to the crops in the kitchen and fruit garden. The question referring to conservatory decoration was not very well treated. Many of the candidates could name only a few of quite the commoner plants, and could give but meagre directions for culture. It may also be well to again urge candidates to keep as closely as possible to the terms of the questions; in many instances much unnecessary labour was bestowed and time wasted on the first and second questions answered, leaving not nearly enough for

the third and fourth. Some of the candidates answered three only of the four questions they ought to have answered, whereas if they had apportioned the time necessary for each question they might easily have answered all four. The medallist is F. M. Verrall, Sunnyside, College Road, Harrow, who gained 280 marks. Next came the following five, each with 275 marks: I. Abercrombie, Swanley College; E. Colson, Lady Warwick College, Studley; A. B. Evans, Barnwood, Gloucester; G. H. Fotheringham, Swanley College; and V. V. de Steenwijk, Swanley College.

**New Fellows of the Royal Horticultural Society.**—At the general meeting of Fellows held on the 14th inst. 257 candidates were elected. These included the Dowager Duchess of Argyll, the Earl of Desart, K.C.B., the Earl of Lindsay, the Earl of Tankerville, the Earl of Essex, the Countess of Lathom, the Countess de Grey, the Baroness Campbell, Lord Dormer, Lord Saltoun, Viscount Cross, Lord and Lady St. Oswalds, Lady de Ros, Lady Campbell-Orde, Sir Homewood Crawford, Sir W. Lee Warner, Sir G. J. Armytage, Bart., Lady Battie

but the flowers of the one are much finer than those of the other. They are of much more intense colouring, quite orange-red instead of deep yellow. This Lily makes a brilliant display in the garden now, and it grows so easily and flowers so freely that it is especially well suited to the town garden. It needs no special treatment, and does splendidly in ordinary border soil. It appears to me to do best when in a position where it is exposed to the sun throughout the morning, and after then is in shade. *Lilium Hansonii*, too, is a Lily that I find to grow easily under similar conditions. Its drooping rich yellow flowers are very attractive now.—A. H. P.

**Double yellow Primroses.**—I am afraid your correspondent "R. D." does not know all that there is to know about these things. There are three distinct forms—Early Sulphur, Cloth of Gold, and Late Yellow. The first usually flowers freely in the autumn and more or less through the winter, and is over early in spring. Cloth of Gold then takes up the running; it has the largest leaves and flowers of the three, but is quite over when Late Yellow begins. Even now (the 15th inst.



ONE USE OF A FLOWERING CLIMBER—LIGHTLY TRAINED ACROSS WINDOW.

Wrightson, Sir C. Gibbons, Bart., Sir G. A. Pilkington, Sir R. G. Hervey, Bart., Lady M. Estcourt, General Sir R. Harrison, Sir E. Lees, Hon. Lady Ingilby, Hon. Mr. Justice Kennedy, Lady Renshaw, Sir Lindsey Wood, and Sir E. G. Jenkinson. The next show of this society will take place on Tuesday next, and will be the last to be held in the Drill Hall, as the Holland House show will follow on July 12 and 13, and after that the society's New Exhibition Hall will be ready for occupation. When one looks back over the shows that have been held at the Drill Hall for the last seventeen years and sees the progress made both by horticulture itself and by its representative society, now celebrating its centenary year, one takes heart for the possibilities of still greater expansion in the near future.

**Lilium davuricum grandiflorum.** What an improvement this is upon the type. I am sure that anyone having once grown the variety grandiflorum would never care to go back to the species; in the former the flowers are larger, and if one gets the best form they are more red than yellow, while the plant is altogether more vigorous. I have two plants, each sent to me as grandiflorum,

this has still a good sprinkling of flowers. Years ago a Mr. Lamb of Lisburn used to offer four double yellow Primroses—Sulphur, Late Yellow, Giant, and Giantess; then all at once a London nurseryman hailing from somewhere about Forest Hill showed a pantul under the name of Cloth of Gold. I never could see any difference between Giant and Giantess or between them and Cloth of Gold.—T. SMITH, *Norwy.*

**Gloxinera Brilliant.**—Among the Gloxinias exhibited by Messrs. James Veitch and Sons, Limited, Chelsea, at the Drill Hall last week was the above plant, which is the result of a cross between Gloxinia and Gesnera. Intermediate characters are to be seen in the semi-pendent flowers (in Gloxinia they are erect and in Gesnera drooping), while the lowest lobe is enlarged: in fact, the lower half of the bloom is broader than the upper, and so makes it appear to have almost a lip. The colouring of this new hybrid is rich scarlet, shading to rose at the edges. The base of the throat is white, dotted with purple; the leaves are rounder and stiffer than those of the Gloxinia. The flowers are produced freely, although they are more loosely disposed, and do

not make such a compact head as those of the *Gloxinia*. Whether this *Gloxinera* will prove valuable remains to be seen. In general appearance, however, it reminds one a good deal of the old type of *Gloxinia*.—H. A. P.

**Seedling Daffodils.**—I dare say you will think I am somewhat late in thanking "Hortensis" for his kind and well-meant advice on page 376, but really, to my mind at least, he had at the same time raised such debatable matter that I felt somewhat diffident in replying, and that I ought to wait and see what more experienced persons might say. I note Mr. Engleheart's remarks thereon (page 417), and I quite agree with them. I may say that I am indebted to that gentleman for valuable cultural advice, which has helped me not a little; but I do wish I knew of some method whereby I could increase my stock of bulbs more rapidly. I am under the impression, and, indeed, I think I have read, that the bulb growers to the trade have some mode of quick increase. I wonder what it is, and if it could be applied to Daffodils.—JOHN W. GAUNT, *Bramley*.

**Pears and stone fruit dropping.**—After such a splendid promise of a few weeks ago it is distressing to see the wholesale dropping of fruit, such as Cherries and Plums; indeed, Pears could be included, as these in some cases have totally failed. They blossomed early, and on a warm wall there is a fair crop. Others which are later, and on this account doubly valuable, have lost all, or nearly all, their fruits. Doubtless this was caused by imperfect setting. In our case we had little frost, but severe east winds prevailed, and the latter, I fear, did much mischief. Pears for two seasons were so poor that this year one did expect better things. Trees in the open are almost barren. A few here and there may be seen, but nothing like an average crop. Cherries are in a worse condition than I have seen them for ten years. The fruits dropped wholesale when less than half grown, and upon examination they were not properly formed. Plums are in a similar state. These are very scarce, but this I note is not general. Only a short distance away I have some kitchen varieties with about half a crop, but on walls the failure is almost complete. Apples which promised so well are nothing like so plentiful—at least, some varieties are very scarce, but I am glad to say some of the best kinds are not in such a plight.—G. WYTHES.

**A new hybrid Iris.**—Mr. Joseph Mallender, the head gardener at Hodsock Priory, Workson, Notts, has raised a beautiful hybrid Iris, which it is probable will make a good garden flower. Its parents are *Iris longipetala* and *I. sibirica*, so that there should be little difficulty in cultivating it in any part of the British Isles. Mr. Mallender kindly sent me a plant some time ago, but, as it has not yet bloomed with me, he has supplemented it by sending some cut blooms. These are most pleasing, with pretty light blue standards and long, drooping, pale lilac falls veined with a deeper colour. The foliage is rather broader than that of *Iris sibirica*, and the whole plant reminds one more of *I. longipetala* than of *I. sibirica*. The splendid series of hybrid Irises raised by Mr. G. C. Van Tubergen, together with the hybrid alpine Irises of Mr. Caparn, will probably draw increased attention to the hybridising of the Iris, although in this connexion the work of Mr. George Yeld of York and others must not be forgotten.—S. ARNOTT, *Cursethorn, by Dumfries, N.B.*

**British Gardeners' Association.**—The forms of application for membership of this association decided upon by the committee of selection are now ready, and can be obtained on application to the hon. secretary (*pro. tem.*), Mr. W. Watson, Kew Road, Kew. Contributions towards the required £250 will be welcomed. The qualification for membership is as follows: 1. To be not less than twenty years of age; 2. If less than twenty-three years of age, to have had at least five years' training in good private, public, or commercial establishments; 3. If more than twenty-three years of age, to have had at least seven consecutive years' professional experience; 4. To be able to produce satisfactory testimony as to

general character. Candidates must obtain from the secretary a form of application, which, when filled up, should be returned to him. If the committee of selection are satisfied that the candidate is qualified for membership, they will instruct the secretary to forward him a certificate. The certificate will be renewed annually on receipt of subscription. The charge for registration and certificate will be 2s. 6d., and the annual subscription 2s. 6d. These two sums should be forwarded to the secretary together with the form of application. Proof of membership will be the possession of the association's certificate for the current year.

**Decadence of Pine-apple culture.** If any proof of the fact that Pine-apple culture in this country is a thing of the past were needed it was forthcoming at the recent horticultural exhibition at York. In the schedule of the show one class was devoted to the Pine-apple, and prizes were offered for the best fruits. Only one competitor entered the lists, and his fruit was such a miserable specimen that the judges decided not to award it a prize. It was, indeed, a poor fruit, and the judges did quite right in passing it over as unworthy of recognition. The reason that practically no one at home grows the Pine-apple now is, I suppose, because of the cheapness and fair flavour of imported fruits. It is a pity that this should be so, for there is no comparison between a home-grown Pine-apple and an imported one. It seems hardly worth while to devote a class to this fruit now in horticultural societies' schedules, for there is rarely, if ever, any competition, and often the first prize fruits are not good specimens of culture, as growers of ten years ago would have judged them.—H. P. A.

**Alexandra Park, Windsor.**—That portion of Windsor which borders on the river has recently been greatly improved, and among the improvements effected is the transformation of a meadow into a public park. A broad walk separates this from the river bank, which also has been attractively laid out. Mr. Charles Turner of Slough did most of the planting in the new park, and although only two years have elapsed since trees and shrubs were put in, the park is now very picturesque. The side near the river is the most attractive. Extending the full length of the park there is a bank of shrubs, each kind boldly massed and not indiscriminately planted among others. *Berberises*, *Spiraeas*, and numerous evergreens were made use of, and the result, even when most of the shrubs are out of flower, is very pleasing. Because there is a large group of each even the various tints of green appear quite distinct, and one sees the best results that evergreen trees and shrubs are capable of producing. When closely and indiscriminately commingled the shades of green, that often vary but slightly from each other, lose their individuality, and combine to make an inharmonious whole. Happily, however, this is not the case at Windsor. Among the great variety of green-leaved shrubs there are also masses of red-brown *Berberis* and golden *Elders*, which add still further variety and a welcome touch of colour to this bordering of hardy shrubs. The margin of Pinks is delightful; we have rarely seen them flower more freely. The air in the vicinity is redolent with their perfume, and the passer-by is irresistibly attracted, only to be charmed more than ever by their wealth of beautiful flowers.—A. H. P.

**Report of the Botanic Garden Syndicate (Cambridge).**—During the year 1903 1,130 plants, 868 bulbs, and 3,200 packets of seeds have been received, while 1,431 plants and 2,279 packets of seeds have been distributed. Among the more interesting plants that have been received are *Cotoneaster vulgaris*; from a plant taken from the Great Orme's Head, *Saxifraga Grisebachii*, a new and valuable addition to the genus; *Decaisnea Fargesii*, a remarkable new *Berberid* from China, showing connexion between the Chinese flora and that of the Himalayas; the variety of the Grape Vine which produces the Sultana Raisin, obtained from the Botanic Garden at Athens; *Senecio albescens*, the interesting spontaneous hybrid between the garden *Senecio Cineraria* and the wild *S. Jacobaea*; *Eucommia almoides*, a

hardy Chinese tree of the order Magnoliaceae, which yields a large amount of caoutchouc-like substance; *Ocimum viride*, a *Labiata* of Tropical Africa, once supposed to be efficacious in warding off mosquitos; *Adenostemma viscosum*, a tropical Composite with a pappus of glandular bristles by means of which the achenes are distributed; *Drosera gigantea*, raised from Australian seed; *Sedum Stahlii*, a new species; *Bartholina pectinata*, a remarkable Cape plant, the "Spider Orchid" of the colonists (now about to flower); *Loranthus europaeus*, the one European species of this large genus of Tropical parasites recently introduced into this country; various Succulents brought from South Africa by Mr. E. M. Lewis, of Downing College. British plants have received, as usual, a large amount of attention. Considerable assistance, in material, has been afforded to Mr. E. W. Hunnybun, whose drawings, referred to in a previous report, are of great value. From him has been received *Bromus Thominii*, found in Jersey and new to the British flora. Mr. A. Hosking, foreman of the outdoor department, has collected various plants of interest, both in the neighbourhood and in Cornwall. The curator has rediscovered *Sedum dasyphyllum*, and has made an addition to the known flora of the county, and apparently to that of the country, by finding *Helianthemum vulgare* var. *hirsutum*, Koch.

**Insect pests on fruit trees.**—The fruit grower's lot during the past few weeks has been an anxious one. Aphides and caterpillars have been busy. It is useless to dwell on these troubles, but so far as I can remember I have never seen such swarms before, and strong measures are needed almost daily to keep the pests down. Fortunately, in THE GARDEN (page 417) this subject is ably treated, and at a time when the advice will be most valuable. Our greatest difficulty is with Cherries and Peaches. With the former one is naturally afraid to use an insecticide too strong. I notice that aphides increase more quickly when the trees are in light soil and on walls. We use quassia extract freely, but this cannot be used when the fruits are colouring. There are other valuable aids. Bentley's Meotine Soap is a valuable preparation. Though not often advised for black fly, it is a sure exterminator, and will, I think, be more valuable than quassia. It is for clearing away scale and thrips, and quite safe if used as recommended.—G. W. S.

**Fruit Industry Committee.**—The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 15th, 16th, and 17th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Monro, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). The following witnesses gave evidence: Mr. J. E. Hennell, representing the Great Western Railway; Mr. G. Monro, of Covent Garden, a member of the committee; Mr. J. W. Dennis, a fruit broker of Covent Garden; Mr. G. W. Meats, jun., the auctioneer at the Hereford Corporation Wholesale Fruit Market; Mr. J. T. Sheppard, a grower from Holt, North Wales; Mr. George Langridge, of Tunbridge Wells, representing the Surveyors' Institute; and Mr. T. W. Cowan, representing the British Bee-keepers' Association. The committee visited, on the 14th inst., some of the principal fruit plantations and the Horticultural College at Swanley.

**Councillor Mackenzie.**—At an informal meeting of Edinburgh Town Council, held after the ordinary meeting on the 14th inst., it was agreed to invite Mr. Mackenzie to dinner on July 12 and to present him with an illuminated address in recognition of his services to the City of Edinburgh. Mr. Mackenzie is the head of Messrs. Mackenzie and Moncur, Limited, the well-known horticultural builders and engineers, and is retiring from the Town Council on account of the absorption by Messrs. Mackenzie and Moncur of another business which has contracts with the Corporation. He will be greatly missed in the Council, and particularly by the Electric Lighting Committee.



TREES AND SHRUBS.

LYCIUM PALLIDUM.

**R**ARE and interesting, this shrub is now flowering profusely in the Kew Arboretum. It is the handsomest and most striking of all the cultivated Lyciums, so far as its flowers are concerned; but, of course, the better known species, whilst being pretty when in flower, are chiefly noteworthy for their beauty when in fruit. *L. pallidum*, although a native of the hot south-western United States—New Mexico, Utah, Arizona, &c.—is still perfectly hardy at Kew. It is a shrub of loose habit, bearing small glaucous leaves, oblanceolate in form, and about 2 inches long. The flowers hang thickly, but gracefully, all along the underside of the branches. They are each about 1 inch in length, the corolla being bell-shaped, with five expanding lobes. The colour is an unusual one in flowers and not easy to describe exactly; it is, however, a pale green, veined with darker coloured lines and tinged with purple. Its fruits are half an inch long and bright red, and the shrub, like other Lyciums, is, no doubt, handsome when it is carrying them. At Kew, however, it has never borne any. Although exceedingly rare at present, the species will doubtless become more plentiful soon. Seeds of it have been offered by Mr. Hesse, of Weener, in Hanover, in his recent catalogues.

W. J. B.

SPIRÆA BRACTEATA.

It is not every year that one sees this *Spiræa* at its best, for, like several other beautiful species, it is very susceptible to late frosts. This season, however, it is magnificent; it is several years since it has been so fine. The species is a native of Japan, and appears to have first been introduced to Europe by Siebold, and to have been distributed from his Leyden Nursery in 1882. It is still one of the little known species of *Spiræa*, but if there were any doubt of its garden value it would be dispelled by a visit to the collection of *Spiræas* at Kew (near the Pagoda), where a group of it is now fully in flower. So thickly are the trusses borne that the shrubs are simply masses of white. The flowers, each three-eighths of an inch across, are clustered in rounded corymbs about 1½ inches in diameter. The shrubs are 3 feet to 5 feet high, and may in time grow higher. The leaves are about one inch long, broad and rounded, with a few teeth at the apex, and rich green. The *Spiræas* commence to flower in early spring, and one or other of them is in bloom almost till the frosts come. *S. bracteata* is useful in filling up the period between the earlier flowering species, like *Thunbergi*, *prunifolia*, *arguta*, &c., and the late flowering group represented by *S. japonica*, *Bumalda*, *salicifolia*, and the great number of garden hybrids that have been obtained from these and other species.

W. J. B.

ROSA SERICEA.

AMONG the earliest flowering of the true species of *Rosa*, one of the most distinct and interesting is this from the temperate Himalaya. A bush not far from the main entrance to the Botanic Gardens at Kew is now, and has been for some weeks, very beautifully in blossom. It is about 9 feet high, graceful in habit, and is given a soft, somewhat Fern-like appearance by the small size of its leaflets, combined with an abundance of foliage. The most noteworthy feature of the

species, however, is in the corolla, consisting almost always of but four petals, and thus having somewhat the form of a Maltese cross. Occasionally, towards the end of its flowering time, a few five-petalled flowers occur. They are of a lovely creamy white. In one cultivated form of this *Rose* the young shoots are of a rich red colour. There used to be an idea that the species required the protection of a wall; it is, however, perfectly hardy in the London district. In these days, when the wild types of *Rosa* are acquiring a revived popularity, *R. sericea* is a species that should not be overlooked.

W. J. BEAN.

HEDERA FRUCTU AURANTIACA.

(THE ORANGE-BERRIED IVY.)

OF the many and striking varieties of Ivy I doubt if there is one so surprising as this form when fully covered with its brilliant berries. Although it was sent out about twenty years ago by Messrs. Besson, at Nice, it is still little grown in England, perhaps from some want of knowledge of its requirements. Even on the sunny shores of the Mediterranean it withstands the heat and drought of summer in the full sun, and does not perfect its berries until spring; while the ordinary black-berryed Ivies are fully developed and ripe in November, even when grown in deep shade. So this orange-berryed Ivy demands much more sun and heat than any other Ivy that I have come across. Its growth and foliage are particularly slender and elegant, long and pointed in leaf, light green in colour, with brown veinings and extra slender in its twining and interlacing stems. At Nice it shows to greatest advantage tied up a pole, when it fruits freely, and in March makes a brilliant effect when the *Pyracantha* berries are over. In England I believe the best way of growing this Ivy would be in pots under glass, or in a cold house where it got all the sun. It fruits very freely in small pots at Nice when tied up to a neat stick, and would thus make a most elegant plant for a window-box when well coloured. It might also ripen its berries properly on the pillars of a sunny porch; but planted on a wall it runs freely without fruiting, so that it needs detachment from its support before it commences to bear flower and fruit. It is a brilliant and beautiful little Ivy.

E. H. WOODALL.

THE MOCCASIN FLOWER (CYPRIPEDIUM SPECTABILE) IN A CANADIAN BOG.

THIS *Cypripedium* is the most handsome of the six species native of Canada. It grows luxuriantly in sphagnum bogs, which seem to suit it best, although it is found in less congenial places on sloping ground partially shaded, but always with

very wet soil at the roots. It will be seen that some of the stems carry twin flowers, which may be frequently found.

There were numerous groups of plants, some better than the above, but in too inaccessible places to photograph. The soft spongy sphagnum gives under the feet until the water rises above the boot tops. There the flowers were countless, some in complete shade, with an almost white labellum, others in partial shade, while the majority were in full sunlight all day, the flowers having the deepest colour. In the open spaces the flowers were so numerous that they presented a mass of colour. This, with the other *Cypripediums*, are growing scarcer, being hunted for commercially and plucked indiscriminately. With the exception of a few scattered plants they are not to be found within fifty miles of any large town.

In the same bog *C. pubescens* was in flower a month later than when found in its usual place on higher and drier ground. There were also numerous plants of *Habenaria*, while the mossy beds were carpeted with Pitcher Plants (*Sarracenia purpurea*),



THE MOCCASIN FLOWER (CYPRIPEDIUM SPECTABILE) GROWING WILD IN CANADA.

showing their curious purple-red and yellow flowers, and a host of other treasures rarely noticed except by botanists.

Toronto, Canada.

P. G. R.

CULTIVATION OF ALPINE PLANTS.

(Continued from page 426.)

**W**HEN first I began to cultivate alpine plants, I planted somewhat indiscriminately together things which I thought would make an ornamental combination, but the weaker soon became overwhelmed in the fight with the stronger, and there was nothing to be done but to build a new rockery and plant it more carefully. In this way I have now constructed at least a dozen rockeries, trying each time to benefit by past experiences and to exclude weedy plants. The first and second made still continue, and are still flowery wildernesses in spring, but everything choice and delicate upon them has either long ago perished or been transferred to new quarters. But visitors to

my garden in spring who are not connoisseurs in alpenes think these wild rockeries far more ornamental than the half bare stone heaps where my choicest plants are grown, and which they think will look very nice in a year or two, when they are as well covered as the others. I have mentioned this to show that those who can appreciate the beauty of the smaller and more delicate alpenes, and grow them for their own sake, must be contented to see their favourites surrounded in many instances by bare stones; but the stones, especially if they contain cracks, may often be clothed with plants without any danger of overcrowding. I have said little about choice of stone for rockeries, though I have tried many kinds, and of all I have tried I prefer the carboniferous limestone common in North Wales, Derbyshire, and the north of Lancashire. The loose blocks of this which lie about the land are full of cracks and are varied in shape. I carefully avoid the furrowed and smooth-channelled surface slates of this stone often sold in London for rockwork, but most unsuitable for growing plants. I do not speak of these, but detached solid blocks abounding in deep cracks and crevices. These crevices are the very place for some of the choicest alpenes. *Paronychia* shows its true character in no other spot. *Potentilla nitida* flowers when fixed in them, and there only. They are excellent for *Phyteuma comosum*. The Spider-web Houseleeks delight in them, and so do some of the smaller Saxifrages. These are only a few of a long list I might make, and things which grow in such tight quarters never encroach much. The little *Arenaria balearica*, which grows all over sandstone as close and in nearly as thin a coat as paint upon wood, does not grow well upon limestone; but this plant does encroach, spreading over the surface of small neighbours and smothering them. There are many things, however, some herbaceous, some shrubby and evergreen, which do well only on condition of resting upon stone with their leaves and branches. It is so with *Pentstemon Scouleri*, and with that most charming dwarf shrub *Genista pilosa*, which rises hardly an inch off the stone, though it may cover several square feet. There are many other such plants, but a list of plant names is out of place here, and will be given in an appendix. I have said before that in planting aspect must be carefully considered. The best aspect for alpenes is east, and west is the worst; but there is not a spot on any rockery which may not be filled with a suitable tenant. Some of the most ornamental flowers abhor, in the atmosphere of my garden, even a glimpse of the sun. *Ramondia pyrenaica* is withered up by it in an hour; so is *Cyananthus lobatus*; and these must be shaded on every side but north. As a general rule, I find all Himalayan alpenes impatient of sunshine. They may endure it in their own home, where they live in an atmosphere always saturated with wet. However, it is only the deep recesses of the rockery towards the north which get no sun at all, and plenty of things are quite contented on the north side of the slope. It was said above that the rockery is intended for dwarf and choice plants which will not thrive in other parts of the garden. This, of course, includes some dwarf shrubs. For instance, I must grow *Lithospermum prostratum* on stones or not at all. The white *Erica carnea*, and several such dwarfs, are included in the same number. These details everyone must settle for himself. Such things are included in my definition of alpenes. As for bulbs, they may be ornamental enough at times, but I find they do as well or better elsewhere. Their leaves are untidy just at the time when the rockery ought to be most

gay and neat; and watering in summer, which other plants require, is bad for them, so I have not included them in my list. While speaking of watering, I may say that rockeries such as I have described could not dispense with it in dry weather; it requires careful judgment, and I often prefer to water the soil holding the can close to the ground at the highest point of the stones, and letting the water run down the slope, to get to the roots, rather than wet the plants themselves. Wet foliage and flowers often get burnt up by sunshine. Weeding, carefully done, is a necessity on rockeries, for weeds will come; but plants which seed about freely are to be avoided, as they greatly multiply the labour of weeding, and some of them are hard to eradicate from among the stones. The Harebells and alpine Poppies, pretty as they are, must be excluded on this account; so must that weedy little plant, *Saxifraga Cymbalaria*, which can be grown on any wall. The fewer weeds there are the more likely are seedlings of choice and rare plants to assert themselves. For instance, *Geranium argenteum* grows in crevices into which the seeds are shot when ripe, and where plants could not be inserted, and keeps up the supply of this elegant alpine.

(To be continued.)

## THE ROSE GARDEN.

### JOTTINGS ABOUT ROSES.

#### AN EARLY SEASON.

**R**OSA RUGOSA ALBA was the first outdoor Rose to come into flower here (on the 26th ult.), closely followed by Longworth Rambler on the 28th ult., *lævigata* (sinica) Anemone (on a wall), Dr. Rouges and Marie Van Houtte on the 29th ult., and G. Nabonnand on the 31st ult. Since June came in we have had much east wind, but, on the whole, it has been such a perfect time for the plants that I am looking forward to an exceptionally good season. Not since 1901 have I been able to cut Roses outdoors in May; indeed, for the past two years most people have had to wait until July before they could be cut in plenty. I never remember a more favourable spring than we have had this year. Not a leaf or a shoot has been injured by frost, which is a marvellous occurrence in this district, where we usually suffer greatly in that respect. But the salvation of my plants has been the splendid rain which we had on the 29th ult. This has started them into good growth. April and the first part of May were windy and dry, and on this light soil rain was badly needed; in fact, it just came in time to prevent the plants from getting dry at the roots. From the garden Rose point of view the season is decidedly an early one, but maiden plants seem to be very late in some of the nurseries around here.

#### ROSA LÆVIGATA ANEMONE.

This Rose certainly ranks as one of the finest introductions, and all who have seen it here are in raptures over its beauty. A lady friend aptly described it the other day as a "climbing single Peony," and at a distance its flowers certainly bear a resemblance to some of the new single Peonies now so much in favour. Among Roses it is unique, with its enormous petals, marbled and suffused with beautiful rose-pink, which varies with intensity as the flowers age, and the whole set off by a whorl of glorious golden stamens. Towards evening the petals of the flowers which are still young roll themselves up and close the flower. At this period their appearance is most singular, each petal looking like some delicate pink shell. The subtle perfume is midway between that of a ripe Pear and a Tea Rose. I know of no plant I would rather select to cover a sheltered south wall, and even if it never flowered the foliage alone would

make it worth its position. Of course, in England we can never see its fullest beauty as portrayed in *THE GARDEN* (page 352), because in our climate it must needs have a wall to succeed at all. If, as Mr. Woodall says, it is a cross between *R. lævigata* and *H. P. General Jacqueminot*, there is every probability that other forms will be raised from crossing it with other varieties. However, on good authority, I am told that *Anemone* was raised from *R. lævigata* × a Tea-scented form, and shall be glad to know which is correct. Perhaps Mr. Woodall would be kind enough to tell us more about the history of this Rose, and from whom he obtained the information as to its parentage. Mr. S. Mottet, writing to *Flora and Sylva* on the subject, remarks that "it is a form of obscure origin, but probably Japanese, distributed in 1896 by J. C. Schmidt, of Erfurt, under the name of *Anemone* Rose, from its likeness to the rosy form of the Japanese Windflower. Though, with the general aspect of the Cherokee Rose, it differs from it so much in some ways as to suggest a hybrid form rather than a mere colour variation. Its stem, instead of being green and armed only with thorns, as in the type, is of a dark purple colour, set both with small thorns and spines mingled; the calyx and flower-stems are also less fleshy in texture, and smoother in character."

With me the flowers have lasted two, three, and four days, but this doubtless depends upon the weather, which has been cool since the plant came into bloom. I should like to see a cross effected between *Anemone* and *R. wichuraiana*, as it might be the means of producing a large single form of greater hardiness than either *R. lævigata* or *Anemone*.

#### CLIMBING MRS. W. J. GRANT (SYN. BELLE SIEBRECHT).

I have six beautiful flowers of this fine Rose before me as I write, and one of these I am sending to you in order that attention may be drawn to its great merits. I received my plant from Messrs. William Paul and Son shortly after they introduced it, and must confess that at first I was anything but successful with it. As a matter of fact, climbing sports are some of the most difficult of all Roses to manage, and they often prove disappointing. One of the chief causes of failure lies, I feel sure, in allotting them unsuitable positions to begin with. All those which are pure Teas (e.g., Climbing Perle des Jardins and C. Mme. de Watteville) require a wall, and a wall facing due south is the best for them. But when we come to the climbing Hybrid Teas, such as the variety which heads this note, it is quite another matter. Tea Roses revel in a dry atmosphere, and can stand any amount of sun; they will also resist drought better than any other Roses, as I have proved on this light warm soil. As is well known, the Hybrid Perpetuals rejoice in a much cooler and moister climate, while, as a rule, the Hybrid Tea class (in which, of course, there is a good proportion of Hybrid Perpetual blood) prefers a warmer position than the members of the Hybrid Perpetual class, but yet not so warm as that which the pure Teas enjoy.

The variety under notice requires cool treatment, and on a due south wall would be frizzled up unless shade was afforded. A west or south-west wall is the best position for all the climbing Hybrid Teas, and during hot weather plenty of tepid soft water should be sprayed over their leaves, and their roots supplied with abundant moisture.

#### MILDEW

is the worst enemy of these Roses, and I have had a great deal of trouble to keep climbing Mrs. Grant free from this terrible scourge. Last season, owing to the cold June, it got such a firm hold upon the plant that every bloom was ruined. Accordingly, this year I started by giving it a good spraying of sulphide of potassium before even any of the young leaves were unfolded, and have continued doing so once a week until there is scarcely any mildew now to be seen. Used properly sulphide of potassium is a perfect remedy for mildew, and also a very cheap one. The way to apply it is to make a solution of hot soapy water, and to drop into it some pieces of the sulphide, which will

quickly dissolve. Keep stirring the mixture and adding the sulphide until the water becomes a bright green. I put this mixture in my Vermorel Knapsack Sprayer, using the finest nozzle, and I have yet to come across a case of Rose mildew which it will not immediately check, and, provided it is taken in hand early in the season, eventually cure. Half an ounce or quarter of an ounce of sulphide of potassium to two gallons of water is the quantity I find recommended by most authorities for this purpose, but I advise my rosarian friends to adopt my plan and use the mixture considerably stronger. It will save them much trouble by effecting an almost immediate cure at the beginning, and do no harm to the plants whatever. A word of warning to those who have not used this preparation to keep it away from any paint, which it quickly ruins. In

#### PRUNING

these climbing Hybrid Teas it should be remembered that nearly all the flowers are produced upon the lateral branches of the previous season, and few upon the new shoots. For this reason no close pruning should be done in the spring, but the previous year's wood should be slightly shortened and if possible bent down. This will cause each bud to break and produce a flower. After the first display of flowers is over the plant may be cut hard back to induce it to make fresh growth. This fresh growth, if thoroughly ripened and laid in, will produce the next season's flowers, and, in addition, some of the terminals of the new shoots will produce fine flowers in autumn. It is quite impossible to attempt to prune these varieties into shape until they have completed their first flowering—usually during July.

#### FORTUNE'S YELLOW.

Some beautiful flowers of this delightful Rose come to me from Mr. J. W. Barker, The Gardens, Castle Hill, Bletchingley, Surrey, who writes that "they were grown on an outside wall in a sheltered position. The plant has flowered well, but you will observe that it has dropped its foliage, and I am unable to account for this. I might add we had a splendid lot of this variety in our Peach house, but the colouring of the flowers was not so deep."

The flowers sent were very fragrant and of beautiful colouring—a blending of pink, tawny yellow, blush, and buff—such as one does not meet with in any other Rose I am acquainted with. It is very unfortunate that it possesses the peculiar trait of parting with its leaves just as the buds are opening, and many are the reasons suggested as to the cause of this bad habit. Of course it is a Rose that requires treating well as far as root-run and manure are concerned, and Fortune, when he introduced it,

magnificent plants of it by manuring it with night soil. In conversation with Mr. F. Jordan, of Impney Hall Gardens, a few days ago, he informed me that at Welbeck Fortune's Yellow was worked upon stocks of Gloire de Dijon, and by this means the plants retained their foliage better. This idea is certainly well worth a trial elsewhere, and although I have not tested it myself it is quite probable that Gloire de Dijon, which will grow practically anywhere, might prove more suitable in this respect than growing it either upon its own roots or upon the Briar. Moisture, again, is an important factor with climbing Roses, especially during drying winds, and, as I have previously advised, should be given not only at the roots, but also carefully sprayed upon the leaves. Fortune's Yellow is particularly sensitive to drought, and as the soil at Castle Hill is very light this may probably aggravate the tendency which it has to shed its foliage. As regards forcing this Rose, the cooler the conditions under which it is grown the better coloured will its flowers be, and some gardeners I know make a practice of moving it from a warm house into one where the temperature is kept low, just before the buds begin to open. This simple procedure always results in flowers of richer colour. Perhaps other readers may be able to give further hints as to the successful cultivation of this excellent Rose. Already I have to thank a large number of correspondents who have written to me on the various Rose topics discussed from time to time in these notes. It is a great pleasure to receive such letters and to know that THE GARDEN is so widely read and appreciated. I am sure that I shall be only voicing the opinions of all rosarians in thanking the Editor for the help and encouragement which is extended to all lovers of the flower in the pages of THE GARDEN.

Kidderminster.

ARTHUR R. GOODWIN.

## THE FLOWER GARDEN.

### THE FOXGLOVE.

ENGLISH woodland and the wilder parts of our gardens would lose a good deal by the absence of the Foxglove, its tall, stately spikes of bell flowers rising from a mass of Bracken, peeping from a crowded hedgerow, or, perhaps most picturesque of all, growing in the chinks of an old garden wall, never fail to give delight. In masses in the wild garden the Foxglove is perhaps seen at its best, and a commingling of Poppies as may be seen at Kew serves to add variety and colour to the effect. Few wall plants are more striking than Foxgloves, yet in this character they are far too rarely used. Who cannot call to mind a shaded moss and lichen-covered wall with Foxgloves springing through the green carpet and testifying by their vigorous growth and flowers to a full appreciation of such a position! Doubtless, the self-sown seeds find an ideal home in the moss-grown surface and chinks thus kept moist, and they teach a lesson that the wall gardener would do well to bear in mind when endeavouring to establish wall plants. The Foxglove thrives splendidly in the shade; in fact, its graceful form and the quiet colouring of the flowers seem to need the association of overhanging trees and a carpet of Ferns or Periwinkle to bring out all their good points. In the leafy glades of the woodland and wild garden it is quite at home, and any attempt to cultivate it successfully must be guided by these considerations.

### AQUILEGIAS.

To the propagator of these beautiful and interesting plants there are always two things that are noticeable in connexion with them. It matters not how early they are sown, or how much the growth is encouraged, they never show signs of



FOXGLOVES.



A YEAR'S PROGRESS.

flowering the first year from seed; and how seldom he gets a batch of seedlings that do not show signs of cross-fertilisation. The latter feature may add interest, but it is very aggravating when the different kinds are wanted true to name. This is undoubtedly owing to the seed growers planting them in too close proximity.

It seems almost impossible to purchase *Aquilegia cœrulea* seed that will produce plants true to the type, unless collected from plants growing in their native habitat, where there is no chance for them to become hybridised with other species. This is undoubtedly the cause of this plant being so often wrongly named. The true *Aquilegia cœrulea*, or Rocky Mountain Columbine, is, in the writer's estimation, one of the most charming of the Columbines, but being a rather weak grower in comparison with the majority of the others, it is not so often seen. In the Rocky Mountains, at an altitude of 8,000 feet to 10,000 feet, it grows luxuriantly, and can be cut with stems 2 feet to 3 feet in length. Our own native *Aquilegia canadensis*, with its combination of red and yellow, is a very pretty sort, and if given a partially shaded position in the rock garden thrives well under cultivation. *A. chrysantha*, a tall species with yellow flowers; has a much longer flowering season than the above-mentioned ones, and responds more readily to cultivation.

There is such a galaxy of form and colour existing among the hybrid strains that it is very difficult to name a preference. The old well-known *A. vulgaris* hybrids are perhaps the most satisfactory, as they will grow under almost any conditions, and have a great range of colour and form, many of the forms, such as the double

white, being fixed and very distinct. A batch of plants raised from seed sold under the name of *Aquilegia Helena* proved to be very variable, the prevailing colour and form being not unlike those of *A. cœrulea*, but more compact in habit.

*A. viridifolia* is not very striking from a florist's point of view, the flowers being greenish; but it is one of the first flowers to open in the spring, and is fragrant, a quality not noticeable in the Columbines. One of the most distinct Columbines is *A. flabellata nana alba*. It is of dwarf habit, with glaucous foliage and white flowers, and, considering it is supposed to be of garden origin, it comes wonderfully true to the type in comparison with

the majority of the species. In planting *Aquilegias* it is well to remember that they bloom early in the spring, sending up the flowering stem in a very short time. They are enabled to do this by storing the food in the thick, fleshy roots, so that to obtain a good supply of blooms the plants should be established in their flowering quarters the year previous.

ERNEST HEMMING, in *Florist's Exchange* (New York).

## A STUDY IN NATURAL FORESTRY.

THOSE who are interested in forestry will find it instructive to pay a visit to Hainault Forest, where the reproduction of a natural wood is being carried out under the skilful oversight of Mr. E. N. Buxton. The formal acquisition of the forest by the London County Council was only recently completed, but practical control has been exercised for more than a year, and already valuable results have been achieved. Most of our readers will know that the area dealt with is about 800 acres in extent, of which 300 acres were natural forest, and 527 acres land that was cleared of trees half a century ago, and since then has been under the plough. It is high rolling ground, from which one may obtain fine views of the Thames Valley. The problem before Mr. Buxton was that of converting this land into forest, and experience in the management of Epping suggested certain methods of carrying this out. Formal planting from the first was deemed objectionable. It was felt that the proper forest at Hainault should be one that was entirely natural, and which would show the trees indigenous to the neighbourhood. In Epping the characteristic feature is thickets, made up chiefly of Hawthorn, Bramble, and Wild Rose, with the forest trees Hornbeam, Oak, Beech, and the rest growing up in the middle.



A WOODLAND POOL.

The thicket is required as a natural protection, because the woodland is something of a sanctuary for wild creatures, and, of course, it is also grazed by the livestock of the commoners. The aim, then, was to reproduce at Hainault this state of things. At first glance it may seem to be easy, but certain difficulties cropped up in the course of operations. There were three methods open to Mr. Buxton, and he has tried all of them. The first was planting, which has been done on a very small scale indeed. A few Hawthorns have been put in where they were needed for shelter, and the crown of one of the hills has been set with Chestnuts that were sent as a present to the verderer, but which it is intended to remove when the new growth comes on. The second was that of sowing forest seeds broadcast, and in order to carry this out men were sent to collect the seeds from the forest at Epping, taking them just as they happened to lie on the ground. As it happened, however, last year was an exceedingly bad one for that purpose. There was a great scarcity of the usual seeds, even of Acorns and Beechmasts. Then when they were sown there were furred and feathered enemies to contend with. Jays have multiplied greatly in the forest, and they are curious and cunning birds that are very fond of acorns and nuts. Moreover, when they saw the surface of the earth disturbed their natural curiosity was roused, and they began to scratch and get up the Acorns. Again, the woodlands swarm with mice, which proved even more destructive than the birds, and it is by no means easy to get rid of them. There are considerable objections to the use of poison in an open space, and the various devices for circumventing the mouse all involve a considerable amount of trouble and expense. Mr. Buxton surmounted the difficulty to some extent by what he calls inoculating the ground, that is to say, he carted from Epping Forest turf in which the forest seeds had already germinated, and laid it down on the new ground at Hainault. From inspection it is impossible to say exactly which parts have been inoculated and which have been sown, but already the characteristic trees and plants are beginning to appear, particularly Bramble, Wild Rose, Holly, Hawthorn, Blackthorn, Gorse, and Broom among the minor trees, with many tiny forest trees coming up among them. It is a great deal to have been accomplished in one year, and we hope in the course of another twelve months to give a more detailed report of the progress made. Another problem confronted Mr. Buxton in addition to that of bringing a forest into being. It was not desirable in the public interest that all the area should be turned into woodland, but that some should remain as a fine turfy down. Experts told him how long it would be before a permanent pasture could be made, and most of them recommended that the place should be closed to the public for at least three years. However, he has succeeded beyond expectation in producing a fine turf in the course of twelve months. He began by having the land cross ploughed, since the ridge and furrow left by agriculture is unsightly to look at and uncomfortable to walk on. Then the land having been thoroughly cultivated, after a liberal use of basic slag, he seeded it down, and now the

grass over the greater part of the area is excellent. At present probably it contains more clover and fine grass than will remain, since the grasses growing wild are only Cocksfoot, Fescue, Rye-grass, rough stalk meadow grass, Birds-foot Trefoil, and wild Vetch. Of course these must take their chance now that the public has been admitted, but it will be very interesting to note the condition of the land two or three years hence. Considering what has occurred in

show, will be made most welcome. The *Gloriosa* is a lovely climber for the hot house, and when trained over the roof or up a pillar its beauty can be best appreciated. The flowers of this new introduction are crimson-lake, the segments bordered with gold. The latter are



GLORIOSA ROTHSCILDIANA.

(Shown by the Hon. Walter Rothschild at the Temple Show, and given a first-class certificate. Slight reduction.)

twelve months next year ought to show a very great improvement.

**GLORIOSA ROTHSCILDIANA.**

Among the few species and varieties of *Gloriosa* that we have, this new one, which was shown by the Hon. Walter Rothschild, Tring Park, Tring, at the recent Temple

3 inches long, and at the base the colour is green merging into gold. The anthers are golden. The leaves are 4 inches to 6 inches long, tapering, with tendrils at the end, and of a clear pea green colour; the richly coloured flowers are nearly 6 inches across. Undoubtedly, a valuable addition to the list of ornamental stove climbing plants. The floral committee gave it a first-class certificate. H. T.

## THE INDOOR GARDEN.

### PROPAGATING GREENHOUSE RHODODENDRONS.

LATE in the month of June, and in some instances the month of July, are the best seasons for taking cuttings of the different hybrid greenhouse Rhododendrons. The shoots should be taken when in a half-ripened condition, and this is an important item, as if too succulent they quickly decay; whereas if, on the other hand, they are quite woody, the cuttings will in many cases stand for a long time before they root. When the happy medium is attained, the selection of cuttings is another consideration, and for this purpose close, short-jointed shoots of medium vigour are preferable to the particularly strong or the very weak ones. The length of the cuttings will vary somewhat, as some varieties are naturally more vigorous than others, but, as a rule, a length of 3 inches to 4 inches is a very convenient size. If the entire shoot is not longer than this, it may be cut off cleanly just where it starts from the older wood, and two or three of the bottom leaves having been removed, it is then fit for insertion. If, on the other hand, the shoot is too long to be used in its entirety as a cutting, the base should be fashioned with a sloping cut half an inch or so in length, and terminating just at a joint. Suitable-sized pots for the cuttings are those 4 inches and 5 inches in diameter, which should be thoroughly drained with broken crocks to about one-third of their depth. Then they should be filled very firmly nearly to the rim with a compost consisting of equal parts of peat and silver sand, the whole passed through a sieve with a quarter of an inch mesh. A thin layer of silver sand having been placed on the surface and lightly sprinkled with water through a fine rose, the pots are then ready for the reception of the cuttings. Care should be taken that they are pressed in firmly, and, above all, that the base of the cutting rests on the soil, to secure which the hole made by the dibber must not be too deep. When a pot is filled with cuttings, a thorough watering must be given through a fine rose—sufficient, in fact, to wash the sand into an unbroken surface. As most cuttings strike root with the greatest certainty in a temperature rather higher than that in which they have grown, I put the Rhododendron cuttings into a close case, which is placed in the coolest end of the stove, and in this way they root freely. The soil must be kept fairly moist and the lights should be lifted every morning, and if there is too much condensed moisture a little air should be given till it is dried up. Of course the cuttings must be well shaded. Should any thrips get on the foliage they should be at once removed, as in a close, warm propagating case they increase rapidly, and the disfiguring marks caused by them are permanent. Most of the cuttings will be rooted in a couple of months or a little over, when they may be inured to the ordinary atmosphere of the house, and after that potted off, using for the purpose a mixture of peat and sand. Rhododendrons of this class have a tendency to run up unless stopped freely, and this should be particularly borne in mind during their earlier stages, as it is then that the foundation of a good plant is laid.

The Javanese Rhododendrons also root readily with the same treatment, but in their case, growing as they do nearly throughout the year, no particular season can be indicated as the most suitable for taking the cuttings. T.

### ERICA PROPENDENS.

THIS charming compact-growing, free flowering species was a notable feature in the collection of hard-wooded plants shown by Messrs. Balchin and Sons of the Hassocks Nurseries, Sussex, at the recent Temple show. It may be remembered that it was produced at one of the meetings of the Royal Horticultural Society some three or four years ago, and found much favour, having been

reintroduced after a somewhat long period of neglect. It is an old species, introduced quite a century ago, and at the time of the Chiswick shows in the forties very fine examples of it were staged in collections of stove and greenhouse plants. The records of that time show that specimens were exhibited 4 feet in height and as many through. It is freely propagated at the Hassocks Nurseries. Mr. Richardson, the manager, states that it strikes very freely as cuttings, and grows almost as vigorously as *E. hyemalis*, but when coming into flower in April it requires plenty of water, more so than the ordinary *Ericas*. Perhaps one reason why the species fell out of cultivation was the fact that it is subject to mildew, but this pest can be arrested by dusting the plants over with sulphur. The plants produced at the Temple show were two years old, in 4½-inch pots, compact and bushy, and blooming freely. It is one of the summer-flowering *Heaths*, and will remain in bloom for the space of two months and more.

R. D.

### PACKING OF PLANTS AND FLOWERS.

THERE are few lovers of flowers and plants who do not require at times to send some of them by post or rail, and at such times the best way of packing is often overlooked. It is so disappointing to receive beautiful blossoms battered and destroyed in the post, or plants sickly through bad packing, that brief notes upon such work may be useful. After a trial of many methods the following have been adopted by the best packers:

#### FOR PLANTS.

Large and heavy things require special care; the best way of packing such small plants as are usually sent by post is to fit them closely into long, narrow boxes of light wood. No packing material is required, save a little damp moss wrapped around each ball of roots and secured by a few twists of fine thread. A kind of shallow trough is then made at each end of the box to contain these root-masses. This is done by fitting a stout wooden stay as thick as the finger and cut to measure from side to side, held firmly in place by tacks passing through from the outside of the box. A layer of plants is then laid in, their roots wedged firmly together (with more moss if need be) in this shallow trough; they are then secured by a second stay fitted close and nailed like the first, which holds the root-mass firmly in place and prevents displacement even under rough usage. Successive tiers may be arranged until both ends are full, the stems and foliage, free from the "collar," mingling unfettered in the centre of the box, which becomes a sheltered air-chamber in which the plants travel without any of the crushing or heating inseparable from *close* packing, however carefully done. At the end of a week, if need be, such plants will lift out as fresh as when packed, provided, of course, that they receive sufficient water at the outset. It is well to distribute the weight evenly between the two ends, a well-balanced box being better to handle than when the weight is at one side only.

#### FOR FLOWERS.

Though the same method can be used for large and clustered flowers, such as Rhododendrons, Chrysanthemums, and other heavy things, which are sure to bruise and be crushed out of shape if closely thrust together, the methods used for flowers by the southern growers for export are somewhat different. For long journeys in cold weather wooden boxes are again used, but of a different shape, being broad and shallow rather than long and narrow. Generally, however, the familiar cane baskets are employed, ensuring lightness and flexibility, with a large capacity, the air being excluded by neat folds of paper, stout without, and light and silky for the inner layer. The flowers should be cut before fully open and put in water for several hours previously. In most cases no packing material is needed other than the leaves

cut with the flowers and necessary for effect. Blossoms with delicate petals, such as Roses, Tuberoses, Lilies, and Orchids, are, however, best protected by twists of soft paper enveloping each flower. The flowers are then laid in the box or basket in layers, the heaviest at the bottom and around the sides, but as far as possible closely fitted together and each layer separated by a sheet of soft paper. The basket is heaped rather full to ensure that the final pressure of fastening down will secure the whole as one compact mass, excluding air and preventing all movement, even when roughly shaken, as they are certain to be at busy railway centres. In warm weather a layer of damp moss or thick leaves may be used still further to preserve moisture and exclude air, but in the main it is not necessary.

There is an art in unpacking as well as in packing flowers. They should be taken out singly, lightly shaken into their natural form, their stems placed in warm water, and the whole sprinkled lightly overhead and placed under a bell-glass (or even a damp cloth) for some hours in a moist atmosphere and a subdued light. So handled they will revive wonderfully even after days of travel, and last fresh far longer than when this time of recovery is cut short. Some flowers travel better than others, while fragile blossoms such as are easily shaken to pieces or fade quickly at the best of times are certain to fail; still, by giving due care it is wonderful how many flowers travel well and recover fully after a long journey. One of the most used and worst of packing materials is cotton wool; though light and soft, this dries up the flowers, and should never be used.—*Flora and Sylva* for May.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

#### APPLE LORD SUFFIELD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reference to your correspondent's enquiry as to the timely thinning of orchard crops, it may not be generally known what excellent use may be made of the above Apple in a green state. It usually sets so freely that there are often from six to nine fruits in a cluster—far too many to attain to the finest size and quality of which it is capable. It is the practice in private gardens known to the writer to thin out the half-grown fruits carefully with a pair of Grape scissors, as at that stage they are much appreciated for tarts. For this purpose the fruit is not peeled and the core is not yet formed, therefore all that is necessary is to remove the stalk and the eye and to cook them whole, like Plums. The flavour differs entirely from that of the ripe fruit, and is excellent. It has been remarked more than once that to use this Apple in the way indicated is almost to introduce a new cooking fruit. As far as we know, Lord Suffield is the only Apple which can be depended upon as really first-rate for the purpose, and it might possibly tend to increase the value of plantations of this capital cooking Apple if the fact of its thinnings being of some economic service were more widely known. K. L. D.

#### HUMEA ELEGANS AND PEACH TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—During the past summer you were kind enough to publish in your valuable paper my experience of growing *Humea elegans* in Peach houses, the effect of which was most destructive to the Peach. This season I had two *Humeas* instead of four as last season. They were placed in exactly the same position, with the result that in three days they had to be removed, the leaves of the Peach trees for some distance round where the *Humeas* were standing having the appearance of being severely scorched, together with leaves, to all appearance unharmed, dropping to the ground in large quantities. And further to make certain

that this particular tree, which was *Crimson Galande*, was not suffering from any other cause, I had the same two plants placed under two separate trees in the same house, with identical results. I might say that the Peach trees had in no way been coddled, for the house, to my knowledge, had not been closed for twelve months, except for the purpose of fumigation previous to the trees coming into bloom. To readers whom this may interest I say try standing a single *Humea* plant under a Peach tree in fairly close contact, as plants in houses generally have to be, when it will be discovered that my opinion is correct.

*Lockinge Gardens, Wantage.* WILLIAM FYFE.

THE EVERGREEN CYPRESS.

GOOD specimens of the Evergreen Cypress (*Cupressus sempervirens*) are sufficiently rare in English gardens to make the accompanying illustration of some interest. They are in the grounds at Hewell Grange, Lord Windsor's Worcestershire seat. One might be pardoned for supposing the photograph to have been taken in a southern or eastern garden. The Cypresses unconsciously remind one of sunnier lands than ours. Writing from Hewell Grange Gardens, Mr. A. A. Pettigrew says that the tallest of the trees is 52 feet high. Two forms of the Evergreen Cypress are common in the South of Europe and Asia Minor, but only one, the fastigate form shown in the illustration, is generally planted in England. This makes a tall, tapering, flame-shaped tree, with erect branches growing close to the trunk. The natural habitats of the Evergreen Cypress are in the Mediterranean region, especially the Levant and the Grecian Archipelago, and also westward as far as the Himalayas. According to Veitch, it was introduced into England prior to 1548, in which year it is mentioned by Turner in his "Names of Herbes." Veitch further says: "There are no old trees in this country, owing to various causes. In the South of Europe it lives to a great age, and attains a height sometimes exceeding 100 feet. There are three Cypresses standing in the garden of the convent of the Chartreuse at Rome that were planted by Michael Angelo (1474-1563). One is in a state of decay, the other two are still vigorous."

Here and there, though rarely, in stately English domains we do find groups which were planted long ago, admirably placed with regard to both shelter and prospect, and finely grown. But they are Southern trees, no more indigenous, indeed, to Italy than they are with us, and though they may be found everywhere to-day, from the foot of the Alps to Calabria and Sicily, all historic allusions go to prove that the Romans themselves had to acclimate and cultivate them with care and difficulty. It is a tree whose chief affinity is with sun-lit plains, and therefore cannot withstand great rigour of climate. An exceptionally cold English winter may kill or seriously cripple it. A. H. P.

GARDENING OF THE WEEK.

INDOOR GARDEN.

GIANT TREE MIGNONETTE.

FEW plants in flower are more admired than these, and they are perhaps much more appreciated because they are in flower mainly during the autumn and winter months. Of all the styles of training perhaps there is none better than standards with stems 20 inches to 24 inches high. Sow the seeds at once in 3-inch pots, and, after draining them thoroughly, fill to within 1 inch of the top with good friable loam and leaf-mould mixed together. The final surfacing should be with more of the mixture rendered fine by passing it through a half-inch sieve, and to this add about a fourth part of sand. Sow in the centre of

open. The flowers are useful in a cut state, as their stems develop from 15 inches to 20 inches in length, and are very stout and erect. The bulbs may be potted in any kind of soil, unless it be necessary to grow and flower them again in the same pots, and in this case give them a mixture of equal parts good rich loam and leaf-mould, with the addition of a small proportion of sand. Liquid manure during the growing season will help materially the development of a good strong growth.

MALMAISON CARNATIONS.

Annually a great number of these plants are thrown to the rubbish heap from no other cause than attempting to force them early into flower. Instead of attempting by artificial methods to force them propagate the young stock early. Generally, under any circumstances, a few of the plants will bloom early, and are now ready for layering. Commence to

do this, and as the flowers are cut continue until the requisite number of layers are obtained. If this method is practised recourse to forcing will not be necessary. Put up immediately a few of the first year plants that have flowered, and do not allow them to suffer the least check through remaining too long in small pots.

J. P. LEADBETTER.

*Tranby Croft Gardens, Hull.*

KITCHEN GARDEN.

ASPARAGUS.

THIS vegetable will soon be over, as it is not advisable to continue cutting too late in the season. In some gardens the rule is to cut till the early Peas are ready, but if the beds are old or weakly in any way cutting should now cease. If the beds are exposed to wind the growths, as they advance, should be staked. A good application of guano and salt added, and applied in showery weather, will help to strengthen the crowns. See that the beds are kept free from weeds. Plants raised from seeds, sown in heat and planted out early in May, will now be growing freely. Give a mulch in dry weather or copious waterings, as it is necessary to get as strong a growth as possible the first season so as to ensure their withstanding the winter.

LETTUCE AND RADISH.

Frequent sowings must be made to maintain a constant supply of these. Sow thinly, then they need not be transplanted, as this is a troublesome operation in dry weather. Where Celery trenches are already thrown out, the seeds may be sown on the ridges between them. Cos varieties will be found best at this period. To ensure Lettuce being always crisp, they should in the summer be grown on a damp border, or given plenty of water at the roots in dry weather. Radishes require to be grown

rapidly. As a sowing keeps in condition only for a few days, sowing every eight days will be necessary, and will be found to work out right for supply.

MUSTARD AND CRESS

may now be sown out of doors either in boxes or in the open. This also requires to be done frequently. In very dry weather a mat may be placed over the sowing. This will help germination.

GENERAL REMARKS.

Many things now occupy the gardener's attention. Hoeing or weeding among Onions or Carrots should on no account be done in dry weather, as the disturbance at the root is sure to affect these



THE EVERGREEN CYPRESS IN AN ENGLISH GARDEN.

each pot from three to five seeds, but directly the seedlings are well through the soil thin them to one that is to form the specimen. The seeds will germinate and the plants afterwards will grow better in a cool, airy temperature without artificial aid until they begin to flower, and the heads of these will develop better with the aid of a little warmth.

BELLADONNA AND GUERNSEY LILIES.

These flowers are very useful for decorative work during September and October. Obtain the bulbs in good time, and these require to be carefully treated. They should be potted singly or with several bulbs in a pot, and should be placed in a cool but well-shaded position until the flowers

at this period. See that all blanks are filled up in recently-planted plots of Cabbages, Cauliflower, &c., and as slugs have been a great pest this season soot or lime should be again placed round each plant. Sow Parsley for winter use if none has been transplanted for this purpose. Sow on a border about the width of the frames intended for covering it. Mould up Potatoes, Cabbage, Cauliflower, &c., as soon as large enough, to prevent their being blown about by wind.

*Hopetoun House Gardens,* THOMAS HAY.  
*South Queensferry, N.B.*

## FLOWER GARDEN.

### LAVENDER.

THIS aromatic shrub passed through a period of comparative neglect, and is now once more in deserved favour. Primarily it is grown for its flowers, but the shrub itself is of such neat and compact habit as to have a distinct decorative value. It is well adapted for use as a dwarf hedge to a Rose garden or herbaceous border. And as it succeeds best in a comparatively dry soil it will thrive on a sunny bank where many other plants fail. It is usually propagated by slips, preferably with roots firmly inserted, either in the open ground or under hand lights. In many places these slips will grow at almost any time during spring, summer, or autumn; and in others it is necessary to insert them either during March and April or in September. If grown as a hedge a few plants of the white-flowered variety, which is just as sweet as the blue, will make a pleasing break in the line. The flowers should be thoroughly dry when gathered.

### HEDGE PRUNING.

Most evergreens have made the greater part of their growth, and the pruning can be done much easier while the growth is young and soft than later on, when it becomes tough. And if the pruning is left too late the aftergrowth fails to get ripe, and an early frost spoils the appearance of the hedge. The young growth of the Portugal Laurel and many forms of the Ilex Oak assume a very bright colour on their leaves and stems. The Ilex is a most valuable wind break and nurse plant for many seaside places, and it will stand almost any amount of hard pruning. From a gardener's point of view its habit of shedding its old leaves at this season makes it an undesirable tree to plant in close proximity to any walks or drives. A batch of young plants will show a surprising variety in the size and form of their leaves. In the few places which possess any examples of

### TOPIARY WORK

there will now be an enormous amount of clipping to be done. This is of necessity a slow and tedious work, but it behoves the trainer to use plenty of time and patience, for unless great care and judgment are exercised to maintain the rigidity of the outlines any beauty which this class of gardening possesses will be lost.

*Pencarrow Gardens, Bodmin.* A. C. BARTLETT.

## FRUIT GARDEN.

### EARLY VINES.

HOUSES where ripe Grapes are hanging should be kept as cool and airy as possible. Black varieties for late keeping will be the better for a light shading. Nothing is better than fish netting if the foliage is good, as this allows plenty of light to pass through. White varieties will be improved in colour by having full exposure to light providing the fruit is ripe. If the borders are mulched, very little water will be required until the Grapes are cut. Do not, however, allow the borders to become dry if the Grapes are kept hanging a long time, but give a good watering of clear water, choosing a fine dry morning for doing so. As soon as the house is cleared of fruit, thoroughly syringe and cleanse the foliage with the garden engine.

### SUCCESSION HOUSES.

In succession houses where the Grapes are approaching maturity these will require plenty of air. Very little fire-heat will be necessary—only a slight warmth during the night or when the

weather is damp. Give the borders a good watering as soon as the berries commence to change colour, and mulch the border with light litter. This will prevent the escape of moisture, especially where such varieties as Madresfield Court and Foster's Seedling are grown. Gradually reduce the supply of atmospheric moisture, and admit air carefully in unsettled weather where the above varieties are grown. Syringing being out of the question when the Grapes are nearly ripe, endeavour to keep red spider in check by carefully sponging the leaves with soft soap and sulphur.

### PEACHES AND NECTARINES.

Tie in and regulate the shoots of Peaches and Nectarines on outside walls as they increase in length, and pinch the laterals. Remove all small, badly placed, and duplicate fruits, finally leaving two fruits on strong shoots and one on weaker ones. Remove all blistered leaves, burn them, and keep all destroying insects in check. Poorness of the soil and dryness at the roots are often the cause of the trees being badly attacked with insects, or cause them to be in an unhealthy state.

### THINNING FRUITS.

Thin the fruits of Apples and Pears. The fruits should be evenly distributed over the whole trees. The more freely they are thinned the finer will be the fruit. Plums are set thickly in places, and some thinning will be necessary. A vigorous syringing with the hose-pipe will remove all small and worthless fruits. The same operation should also be applied to sweet and Morello Cherries.

*Impney Gardens, Droitwich.* F. JORDAN

## ORCHIDS.

### THUNIAS.

AFTER the flowering season is over, which will now be the case with the majority that are going to produce flowers this year, a gradual change of temperature to more airy and cooler houses than those in which they have been grown is needful, till they may ultimately be placed to advantage in such a structure as the early Peach house. Water should be freely given; it is well to retain the foliage till well on in the autumn. When the leaves naturally begin to change colour, not through being allowed to become dry, water may then be gradually withheld till they begin to fall, when no more need be given, and they may then be placed away in their winter quarters. A shelf in a vinery, or any house which is fairly dry and light, and where frost is not allowed to enter, will meet their requirements till the new growth is visible next season.

Many failures to flower this beautiful section of Orchids are brought about by the preceding year's bulbs not being thoroughly ripened and matured; sometimes the foliage is lost much too soon in the season by the plants being allowed to become dry when they are exposed to direct sunshine, and more often by the plants being allowed to remain in a shady house.

### MILTONIA VEXILLARIA.

Well-grown plants have been objects of great beauty these past six weeks, but the flowers now being over, with the exception of the late sorts, a slight rest should be afforded; this is best brought about by withholding the plentiful supplies of water they have been receiving during the past three months, yet sufficient to retain solidity of the pseudo-bulbs is needful. It is also beneficial to remove them to the coolest end of the intermediate house, or, better still, to a house rather more airy and cooler, where they can be kept well shaded. The success of next season's flowering greatly depends on the treatment they now receive; if they are allowed to start immediately into active growth before they have had time to recuperate after the great strain the flowering season entails, the new growth will be comparatively weak compared with those that start away later on in the season after having had the necessary rest. Nothing is gained by being in a hurry with this species, and the best results are attained by keeping them as quiet as possible from now till August.

## GENERAL REMARKS.

Now that the majority of the Orchids have passed through the flowering season, it is well to remove any that are in flower to a separate house where the atmosphere is less humid, otherwise, if the houses are treated as they should be, the flowers will soon be disfigured with spot; most valuable time is often lost by treating the houses at this season to suit the flowering plants rather than the growing ones.

Dendrobiums that are growing freely and have made a good number of roots will now take water freely, and will be benefited by overhead sprayings on bright days. Remove the blinds to allow the evening sun to increase the temperature; frequent damping down is very essential; in fact, this applies to all the houses now. Nothing is more detrimental than a dry atmosphere on a hot day.

W. P. BOUND.

*Gatton Park Gardens, Reigate.*

## THE KITCHEN GARDEN.

### SPINACH AND ITS SUBSTITUTES.

OF Spinach proper there are two types, the prickly and the round-seeded, each supposed to be especially adapted for the winter and spring supply respectively. Certain it is, however, that this order of seasons for each kind is now beginning to be transposed, as one or the other may be relied upon to succeed, whatever the season. However this may be, soils, or at least some of them, have much more influence on the success or otherwise of a particular type of Spinach than many people are aware of. Of this I have had ample proof in this garden. The prickly-seeded or winter Spinach succeeds much better as a summer crop than even the round-seeded, which is supposed to be the best for this season. Even the Victoria will succeed much better as a winter crop than a summer one. I know that many people look upon the round-seeded variety as the special kind for summer use, and they will not try any other. If the round-seeded will not succeed, my advice is to give the prickly-seeded a trial. Any variety which will give a succession of succulent leaves should be grown; but, whatever the variety, this cannot be done unless the soil is in a highly fertile state. During hot and dry weather it is with the greatest difficulty that Spinach of any kind will succeed; it runs to flower-stem when only 2 inches or 3 inches above ground. To guard against this as much as possible, it should be sown on cooler sites, east or north borders for preference. To keep up a constant supply sowings will have to be made at intervals of ten days or a fortnight, both throughout this and the next month. Victoria is now becoming a very popular variety. It is a most decided improvement on the ordinary round-seeded, being much more vigorous in growth and having the additional merit of not running to seed so quickly. Not only as a summer crop, but also as a trustworthy winter kind, is it most valuable. Monstrous Viroflay is certainly a large-leaved kind, but I shall not grow it again, as it runs to seed much too quickly with me; in fact, it is a variety which might well be expunged from seed lists, the Victoria being much the better variety.

Of substitutes for Spinach there are several. The first on the list is what is known as the New Zealand Spinach (*Tetragonia expansa*). Its value lies in its growing freely during the drought and heat of summer, when often Spinach can with difficulty be secured. Being raised in warmth, the plants are set out on a sunny border early in June. It is the young shoots which are gathered. Not many plants are needed, a dozen being ample, these forming clumps a yard across each. The Orach or Mountain Spinach (*Atriplex hortensis*) is another substitute. It must be sown on good soil for succession. Seed may be sown both in the spring and autumn, and, like Spinach, it succeeds best in rich and moist soil. Mercury again is called a Spinach substitute. In Lincolnshire, where it is cultivated more than in any other part of England, I have



frequently come across it. The seeds may either be sown in the spring or autumn on well-drained soil, and also highly manured. Being a perennial, a dressing of manure should be given annually. The seedlings may either be thinned out or transplanted to a distance of a foot apart, selecting showery weather for the purpose. The clumps may also be divided, this operation being performed just as fresh growth is starting. It may either be used as Spinach or the young shoots in the spring may be used as Asparagus. When young the shoots may be boiled whole, but they are generally peeled before using. The shoots are more tender if the plants are earthed up in the spring previous to starting into growth.

The Spinach Beet is really an excellent Spinach substitute, and a row should be grown in every garden. Being a perennial, the plants will not need disturbing very often, but whenever they show signs of exhaustion, take up, divide, and replant on a fresh site. Each spring a liberal top-dressing of manure should be applied. Spinach Beet may be grown from seed sown in the spring, or by division at the same time. The younger leaves are those which are gathered, but if it should be so desired the leaf-stalks may also be used. In this case the crowns are best moulded over in the early spring with leaf-soil; then the stalks as they rise will be blanched, and consequently more tender. These are served up like Seakale or Asparagus. A.

**BRUSSELS SPROUTS**

WHILST the ground on which plants of Brussels Sprouts are to be grown can hardly be too deeply worked, it is unwise to enrich it too much with manure, as the natural tendency of the plants is to grow strong, and in highly manured ground growth from plants put out early is too often gross and productive of large pithy stems and abnormal Sprouts, rather than good hard woody stems and Sprouts of medium size and of the best table quality. If plants are put out on ground from which early Potatoes, Peas, or winter Spinach have been removed, the soil is then fairly firm. But, as seen in the market fields, where the best Sprouts in the world are so freely produced, ample treading, to harden the ground, is productive of great good. It is unwise to aim at securing the production of Sprouts so early as September, for, as a rule, there is then an abundance of other vegetables. From November onward is a good time to have Brussels Sprouts in plenty. Plants raised under glass and pricked off into cold frames ought to have been planted in their permanent quarters before now. The ground should have been heavily dressed with farmyard manure and deeply trenched. Hoe frequently to promote a good start, after which they will require but little attention. A. D.

**CHARLES WOLLEY-DOD.**

DIED JUNE 14, 1904.

**B**Y the lamented death of Mr. Wolley-Dod horticulture in England loses one of its keenest enthusiasts and foremost teachers. To a scholar's training Mr. Wolley-Dod added a sound knowledge of native botany and an intimate acquaintance with hardy garden plants. He was for ever

constitute some of the most valuable records of advancement in garden knowledge. Not only was the matter of his letters sound and lucid, but the manner of it, his fine, direct, simple English was a model of what such writing should be.

In his excellent garden at Edge Hall, in Cheshire, Mr. Wolley-Dod did much to improve and make known some of the best hardy flowers. He devoted much careful experimental treatment to alpinas, but among the larger hardy flowers perhaps he mostly favoured the Composites. The fine modern development of the Michaelmas Daisies owes much to him, many of the varieties that make our gardens beautiful in September and throughout October having been raised by him.

We know how distasteful it would have been to him to know of the printing of commonplace expressions of adulation, but it is only fitting that the pages of THE GARDEN—a journal to which he has been so good a friend, and that owes him so heavy and long-standing a debt of gratitude—should be allowed to express, however inadequately, both personal and public reverence, admiration, and regret.

Refined scholar, painstaking botanist, fine English squire, best and kindest of men, his death is a grievous and irreparable loss, not only to those most near to him by kin and friendship, but to all the world of horticulture.



THE LATE REV. CHARLES WOLLEY-DOD.

seeking knowledge for himself and delighting in imparting it to others. When any important question for horticultural discussion arose, his additions to it were always the most thoughtful, learned, and illuminating. As soon as he had satisfied himself upon any debated point he would communicate his conclusions to the leading horticultural journals. Thus, his notes and letters, published during the last quarter of a century in the *Gardeners' Chronicle*, THE GARDEN, and other journals,

colouring, which the light Surrey soil brings out so well, is most striking. They are, indeed, golden conifers, and the healthy green of the commoner ones around serves but to accentuate their colouring. After leaving these, Mr. Waterer draws one's attention to many fine trees of sorts that are rarely met with as large specimens, e.g., the Willow-leaved Oak, *Kolreuteria paniculata*, an immense Weeping Beech, a Japanese Maple (perhaps the largest in the country), and so on, pointing out also the happy association of *Wistaria* and *Laburnum*, the racemes of blue and yellow commingling delight-

**NURSERY GARDENS.**

**RHODODENDRONS AT KNAP HILL.**

**S**OME two or three miles from Woking, beyond the pleasant Surrey village of Horsell, are the famous Knap Hill Rhododendron nurseries of Mr. Anthony Waterer. Soon after passing Horsell Common collections of golden Yews, Cupressus, and *Retinosporas* are seen in the distance, and upon closer approach their bright

fully: the rampant growth and handsome foliage of *Vitis Thunbergii*, and other objects of interest that abound in this old-established nursery.

Engrossed in the appreciation of these, the visitor is not prepared for the striking change of scene that suddenly lies revealed; one moment you are surrounded by hedges of Beech, that effectually restrict your attention to the thousands of young plants for whose protection they exist; and the next, you are in fairy-land, or, at any rate, so far as stately trees and beautiful flowers in association with a charming bit of Surrey landscape can ever hope to carry one towards an appreciation of that mythical land of delight. Immediately in front of the onlooker, and stretching away to right and to left, are masses of Ghent Azaleas in all the indescribable shades of colour that characterise the latter-day hybrids. Old gold, rich yellow, bright yellow, light yellow, dark yellow, fiery red, and pink and white one can distinguish, but to name these is but just to touch the fringe of that sea of tints that the eye discerns and the mind appreciates, but the pen cannot describe. On the right a mass of Scotch Fir, with bold, rugged, orange-tinted trunks and a crown of green-black foliage; on the left, in strong contrast, a clump of English Elm leafy and placid, and vignettted between the two is the famous Rhododendron drive, a road some two miles long, and flanked on either side for the first mile by bushes or trees—one might almost say banks—of Rhododendrons, while beyond this mass of colour lies undulating ground surfaced with smiling meadows, intersected by leafy hedge-rows, and dotted with clumps of Oak and Elm—a glimpse of real country.

The predominating colour throughout these acres of Rhododendrons is purple; in fact, viewing them from a distance one would say that all were purple. It is only upon closer examination that one becomes aware of the subtle changes and wonderful improvements that the hybridist has fashioned during recent years. Then, too, it is possible to admire—it is, indeed, impossible not to do so—the huge bushes, some of them 15 feet to 20 feet high, and simply smothered with blossoms. The many year-old specimens of several well-known sorts make grand masses of colour alongside the drive, while intermingling and stretching away for some distance beyond are smaller bushes of both old and recent sorts. Among the latter-day productions nothing is more remarkable than the way in which the individual blooms hold themselves stiff and erect, so as to form a truss of flowers that, as Mr. Waterer would say, “look one in the face.” That is a most important point in the outdoor Rhododendron, for form and colour of flower do not count for much if the stalks are so slender as to allow the flowers to hang their heads, and so spoil the beauty of the truss. Mr. Waterer has long been a raiser of Rhododendrons, and his aim has always been to get compactness of truss as well as beauty of flower, and many of the hybrids that may be seen in the Knap Hill Nurseries show well how successful his efforts have been. H. T.

## ROUND ABOUT A GARDEN.

### THREE WILD GEMS.

ONE of the lawns of a large and well-kept garden there stand in a row a wild Crab Apple tree, a wild Rose tree, and a wild Hawthorn tree. Each is a marvel of its kind and reputed to be of immense age, the three being the remnant of a hedge which was grubbed up when the house was built and fields were enclosed for the grounds many generations ago. Probably they were remarkable specimens even then; otherwise it would be hard to understand why these wildings should have been preserved in the midst of grounds which were being laid out on a magnificent scale. However this may be, their preservation has been justified a hundred-fold; for each in its season of fruit as well as

of bloom preaches an eloquent sermon against the popular folly which neglects our beautiful wild trees and cherishes costly exotics not nearly so gracious to view. Just now the wild Rose, which has been trained to form a rustic summer-house, is a miracle of loveliness; but a little while ago the Hawthorn, a mass of dazzling white which seemed the central landmark in the grounds from every point of view, and the Crab Apple, sweeping the ground with wide branches smothered in rosy pink and white, were just as beautiful.

### A CONTRAST IN SELECTION.

If any of these natural gems, even the common white Hawthorn of the hedges, were a product of the florist's art, how we should glory in it and deservedly extol it as “floribundus” in the catalogues! And this “floribundance” really is more worthy of admiration in a common wild tree than in a cultivated plant, because in improving his stock man works towards a definite end by methods far more inexorable than those of Nature. She can only stereotype a peculiarity in any species by the slow law of average success, gradually moving the whole species on by eliminating those which fall out of the marching line. Man, on the other hand, may have a hundred seedlings, and, if one greatly pleases him, he may throw the other ninety-nine of them upon the rubbish-heap, raising another hundred seedlings from that one alone, and repeating the process until the peculiarity which pleases him has become fixed and hereditary.

### NATURE SLOW AND SURE.

Thus in a few years all our gardens are often stocked with a “new” flower which Nature could hardly have produced in a million years, even if the peculiarity conferred a distinct advantage in the struggle for existence; and this would scarcely be the case once in a million times, for I doubt if science knows of a single instance in any part of the world where a cultivated variety of plant has run wild and by cross-fertilisation has raised the natural species to its own standard. What invariably happens instead is that the cultivated strain grows fainter and fainter, until at last it disappears and the natural species alone remains. Nature, having established, by the laborious experiment of ages, the exact type fitted to survive under natural conditions, does not allow man's arbitrary creation of yesterday to imperil her success; so she quietly absorbs his effort, and the waves of life roll on without a ripple to mark where it disappeared beneath the surface of “things as they are obliged to be.”

### THE OLD-TIME PIETY OF SCIENCE.

This, however, only makes it seem the more wonderful that, in such common wild plants as the Hawthorn, a magnificent superabundance of annual bloom should have become an essential part of Nature's scheme. Why should the Hawthorn sheet itself in white every May? The pious naturalist of pre-Darwinian days found an easy answer to that question. The Hawthorn, he said, was smothered in blossom in spring in order that it might produce an abundant crop of berries in autumn to feed the birds; and he even went so far as to say that an exceptionally abundant crop was always thus produced as provision for a winter which was going to be severe. Evolution leaves, however, no room for any plant to cultivate unselfish virtues. The Hawthorn feeds the birds in winter, no doubt, but only in order that they may disseminate its seeds. It is not for the good of the birds, but for the good of the Hawthorn, that an immense crop of berries is produced.

### THE MORE PROSAIC MODERN VIEW.

And even if we could say with certainty why the Hawthorn has, for its own good, acquired the habit of producing an enormous crop of berries, we should still be as far as ever from the reason for its splendid display of snowy blossom in spring. The pious naturalist of the past understood that such displays were devised by Providence to gladden the eyes of man, and he cherished a sentiment of pity for the flower that was “born to blush unseen” as though it had somehow missed its vocation. Since, however, the theory of evolution was established, naturalists have felt themselves under a sort of compulsion to find some more prosaic reason for striking shows of blossom; and much has been written, and is still being written, on the text that all the colours and beauties of flowers have been evolved in order to please and attract insects, in order that these may wander from flower to flower and plant to plant, ensuring cross-fertilisation.

### FLOWERS AND INSECTS.

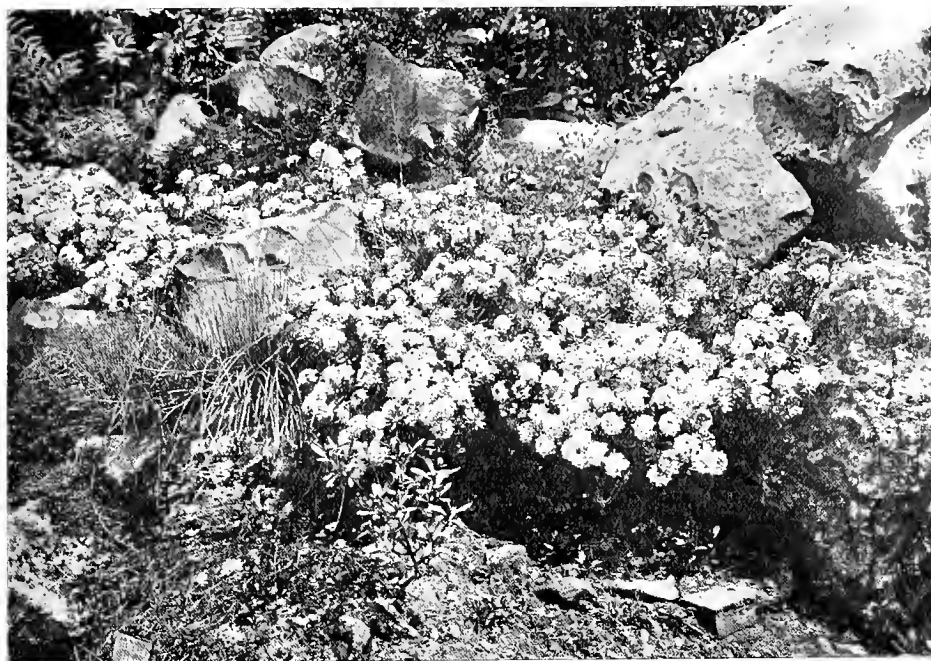
That plants do gain in the struggle of existence by cross-fertilisation can be demonstrated in a very simple manner. Given a plant which produces more pollen than is required to fertilise its own flowers, it is evident that its type will have a better chance of becoming the dominant type of its species, the more widely its pollen can be distributed to other plants. Therefore, whether cross-fertilisation is obtained by the agency of the wind or of insects, we find that a great superfluity of pollen is a characteristic of all dominant types of plants. They have become dominant by distributing their pollen over a wide circle, and, of course, they retain the valuable habit. As a means to this end, those plants which employ the agency of insects must make their service attractive to their agents; and it is undeniable that many plants have adopted remarkably clever devices to secure the services of insects. But this does not at all support the theory that the colours of flowers have been acquired to attract insects.

### DIFFERENT POINTS OF VIEW.

Indeed, no one can wander much about a garden without discovering that the showiness of flowers has little to do with their attraction for insects; and the Hawthorn with its strong scent and its wealth of bloom, conspicuous at a quarter of a mile, has far fewer insect visitors than such plants as the Box or the Spurge Laurel, whose inconspicuous blooms are not easy to see at three yards' distance. My own belief is that insects have no aesthetic sense and are hardly at all guided by sight in their selection of flowers; but that flowers, as we see and admire them to-day, have been modified from ordinary leaves by becoming more and more unattractive and innutritious to grazing and browsing animals, their colours being danger signals to the beasts. That man regards them as beautiful is his peculiarity as an intelligent fruit-eating animal. If man had chanced to be an intelligent herbivore instead, he would doubtless regard flowers and what we call “beautiful” colours as among the ugliest things in Nature. E. K. R.

### DAPHNE CNEORUM VAR. MAJUS.

PERHAPS the best known of the Daphnes is the old Mezereum (*D. Mezereum*), which produces its fragrant flowers on bare branches early in the year. The Garland Flower, however, is of quite a different type, dwarf in growth, and seldom more than 6 inches to 12 inches high. It is of evergreen habit and a



DAPHNE CNEORUM VAR. MAJUS AT KEW.

valuable plant for the rock garden, where it is more in place than with other shrubs in the border or bed. Its culture has proved difficult with many who have tried to grow it, and peat has been recommended for it, but the plant shown in the illustration is on a ledge with a western aspect in sandy loam, to which a quantity of limestone has been added. With this treatment it has grown freely, making a broad tuft with its trailing shoots, and forming quite a pleasing feature with its wealth of clusters of fragrant deep pink flowers. It begins to flower in April, and continues long in bloom, lasting almost throughout the month of May. With a wide distribution, this charming species is found growing in dry mountain pastures, extending across Europe from Northern Spain to Southern Russia. It is a very old garden plant, and has been in cultivation for over 150 years, but is not grown so much as it deserves to be. The habit is variable and there are several forms, of which the subject of this note is the best and largest flowered. D. C. var. Verloti from the Dauphiné is a plant of rather looser habit, with smaller heads of flowers and narrower leaves.

W. IRVING.

## THE FRUIT GARDEN.

### WORN-OUT STRAWBERRY PLANTS.

**G**ROWERS of fruit cannot always plant in the soil that would give the best results, as some are quite unfitted for Strawberries. Of course, there are other reasons, such as in different culture and want of food; but this does not affect all plants or fruits alike. In some gardens certain varieties are a great success, but fail in others with the same treatment. A few seasons ago we had an excellent patch of a new Strawberry, and it was so good we propagated from it largely. In turn the same thing went on with its progeny, with this result, that the plant has become so poor as to be almost worthless, though given just the same culture as when first introduced. Last season I purchased new stock of the same variety, and this year it is excellent. This, however, only occurs in certain cases. The

variety President Strawberry has been growing many years without changing the stock. I certainly think, however, that soil and culture are also responsible for failures, as the same thing happens with Potatoes. These after a few seasons, though the crops are splendid at first, are not worth growing. Raspberries behave in a similar way to Strawberries. No one after a few seasons' growth would know the excellent Superlative—it is so puny, whereas when new plants are obtained it is excellent.

W. S. M.

## NOTES FROM THE MARKETS.

**F**ERNS. — The Nephrolepis seem to have quite taken the place of the crested Pterises. Some good crested varieties of *P. cretica* are grown, but the heavily crested varieties of *P. serrulata* seem to have quite disappeared. Of Nephrolepis there are several sorts now grown extensively. The true form of *N. exaltata* is perhaps the best, but, as this is only propagated from the spreading stolons, others which come freely from spores are seen in larger quantities, yet *exaltata* always makes the best prices. Of others, *tuberosa*, *cordata*, *compacta*, and *philippinensis* are grown extensively. We may soon expect to see the beautiful American *N. Piersoni* in the market, for this propagates freely by runners or stolons, and already several growers have a good stock of it. Those who saw this in Mr. H. B. May's collection at the Drill Hall last week could not fail to appreciate its beauty. There were also others which we may soon expect to see in the market. *N. Westoni*, a good crested form of *N. ensifolia*, I have not yet seen in the market, but I recently saw some fine plants at Messrs. Wills and Segar's establishment, and they regard it as a most useful plant. *N. Hestoni* is another recent addition which is likely to make a good market plant. *Asplenium biforme* is now largely grown, and at the present time there is a good supply in the market. *A. Nidus-avis* is now a general favourite, and I find it is one of the best Ferns to last in a room. When growing under glass, if in a coolhouse in winter, the damp settling on the fronds is the greatest cause of mischief, and this does not occur in a room.

*Adiantums*. — There are a good many now in the market, but really good plants of *A. cuneatum* are none too plentiful. Growers might with advantage

pay more attention to *Adiantums* for spring use, for the supply frequently falls short just when they are most wanted. Early this spring it was difficult to find good plants. The general supply of Ferns in the market is considerably less than a few weeks ago, while trade for them has been better.

*Malmaison Carnations*. — Some very fine blooms of the best pink variety are coming in, and the supply is now at its best, but as they are so exceedingly popular the prices keep up. It is fortunate, perhaps, that the supply of these beautiful Carnations is never very great except during May and June, when there is the greatest demand for them; even the long-stemmed American varieties with the large sweet-scented flowers cannot supersede the Malmaisons, the demand for which has been better this season than ever.

A. H.

### Gardeners' Royal Benevolent Institution.

—The annual dinner in aid of the funds of the above institution will take place at the Hotel Metropole on Tuesday next, at 7 p.m. The chair will be taken by the treasurer (Mr. Harry J. Veitch), who will be supported by a large company on the occasion.

### Horticultural College, Swanley.

—The governing body and the principal have issued invitations for Monday, the 11th of July, when the Right Hon. the Earl of Onslow, G.C.M.G., will present the prizes. The Hon. Sir John Cockburn, K.C.M.G., will take the chair at four o'clock. His Excellency Sir Henry McCallum, K.C.M.G., Governor of Natal, will address the meeting. Carriages will meet the 2.42 train from Victoria, due at Swanley at 3.27.

**Gardeners at cricket.** — The return match between the Royal Gardens, Kew, C.C. and Dover House, Roehampton, C.C. was played at Kew on Saturday, the 18th inst., when the Royal gardeners again proved victorious by seventy-five runs. The scores were: Royal Gardens, 148; Dover House, 73.

**Mr. A. Dye**, who has recently been appointed head gardener at Tring Park, was on Friday last the recipient of a handsome testimonial, consisting of a walnut pedestal writing table, presented to him by the general staff. Mr. Dye, in acknowledging the gift, expressed his pleasure at the good feeling that existed between them, and hoped it would continue for many years.

### Chamærops excelsa in the open.

—The fact that a good specimen of the above Palm (male), which was bought years ago at Stevens' Auction Rooms for 6d., and had been always in the open at Weybridge for about nineteen years, having well flowered more than once, was recorded in THE GARDEN. The same plant is now in full flower, and there are five large heads of flower coming out. Another interesting fact, for the first time noted in my garden, is that a second specimen of about the same age, living under the same conditions, has what I assume to be another flower bud fast appearing. This plant grew much more slowly than the other specimen. Both plants are in robust health, and the foliage has been admirably preserved, even in bad winters. All the protection ever afforded has been some dry Brake Fern, which has been thrown over the lower part of the stems of the plants in late autumn. Neither plant has been moved once since its present place was first chosen. One looks south, the other due west, both being protected by foliage behind. —LIONEL S. BEALE, F.R.S., Weybridge.

## SOCIETIES.

### HORTICULTURAL EXHIBITS AT THE PARK ROYAL SHOW.

The sixty-fifth annual exhibition of the Royal Agricultural Society opened at Park Royal, near Willesden, on Tuesday last and continues until to-day (Saturday). There are numerous horticultural exhibits.

Immediately on the right of the main entrance to the show ground is the imposing stand of the King's seedsmen, Messrs. Sutton and Sons, of Reading. This stand contains a valuable collection of grasses, roots, Potatoes, flowers, vegetables, and other subjects interesting to the agriculturist and horticulturist. Messrs. Sutton's exhibit deals in a practical way with the laying down of land to grass. Grasses and Clovers in growth, as found in the fields at this time of year, can be

seen, each variety labelled with its popular and botanical name. Sutton's pedigree stocks of agricultural seeds are represented by some capital roots.

An interesting feature of Messrs. Sutton's stand is a remarkable exhibit of Tomatoes and Peas in actual growth. The Tomatoes are splendid plants, loaded with immense clusters of well-ripened fruits. It is well known that for the introduction of many of the best Potatoes now grown we are indebted to Messrs Sutton, and some of the leading sorts are here shown, including growing plants of the famous new Potato Sutton's Discovery. A large display of Gloxinias forms a brilliant centrepiece, the beauty of which is enhanced by its bank of velvety turf grown from Sutton's Lawn Grass Seeds. There is also an attractive show of cut flowers.

The exhibit from Messrs. James Carter and Co., High Holborn, W.C., was made most attractive by the inclusion of many plants and flowers. The back of the stand is furnished with roots, grasses, &c., while interspersed among them are such flowers as Spanish Irises and Lilies of the Valley; and in the foreground beds of grasses, Verbenas, Rhodanthes, &c. are full of interest.

Messrs. Webb and Sons, Wordsley, Stourbridge, had arranged a bank of Spanish Irises and Gloxinias in the middle of their stand, while on either side were samples of roots, vegetables, seeds, and grasses, representing Messrs. Webb's strains and specialities.

Messrs. Dicksons, Chester, displayed grass seeds, dried grasses, manures, roots, &c., on either side of a centrepiece of Fuchsias, Hydrangeas, and other plants, while towards the front of the exhibit were groups of shrubs. Messrs. Dicksons also exhibited a collection of ornamental hardy shrubs out of doors.

Messrs. Dickson, Brown, and Tait, Manchester, exhibited grass seeds, Potatoes, dried grasses, and roots, and the appearance of the stand was most improved by the addition of such flowers as Roses, P. rethrum, Spanish Irises, &c.

Messrs. Liberty and Co., Regent Street, exhibited garden vases, sun-dials, and pots of their terra-cotta garden pottery. They had also on view a pergola and terrace steps made of the same material.

Messrs. Little and Ballantyne, Carlisle, exhibited a group of shrubs out of doors (among which were some excellent conifers), as well as having a stand of grasses, plants in flower, &c.

Messrs. Dickson and Robinson, Manchester, had an exhibit of roots, Potatoes, various seeds, &c., as well as a large and attractive display of Verbenas, Irises, and other flowers.

Messrs. W. Horne and Sons, Cliffe, Rochester, showed the best sorts of Potatoes, as well as fruit trees of various sorts.

Mr. John R. King, Coggeshall and Reading, exhibited seeds and grasses.

Messrs. Garton and Co., Warrington, also showed cereals, grasses, &c.

Messrs. Ransomes, Sims, and Jefferies, Ipswich, made a large display with their lawn mowers and agricultural implements.

Iron gates and fences were shown by Messrs. Hill and Smith, Brierley Hill, Staffs.

Messrs. John Crowley and Co., Sheffield, sent lawn mowers and other implements.

A large stand of seeds, manures, implements, &c., was exhibited by the One and All Agricultural and Horticultural Association, Long Acre, W.C.

Messrs. Innans and Co., Stretford, Manchester, and Messrs. Cesar, Knutsford, Cheshire, and King's Cross, showed rustic summer-houses and garden seats.

Messrs. Skinner, Board, and Co., Bristol, exhibited their patent wire tension greenhouses.

Messrs. W. Duncan Tucker and Co., Tottenham, exhibited conservatories and plant and fruit houses.

Mr. John P. White, the Pyztle Works, Bedford, showed garden seats and summer-houses in some very attractive designs.

Mr. G. W. Riley, Herne Hill, showed garden seats and rustic summer-houses.

Messrs. Merryweather and Co., Long Acre, W.C., exhibited the appliances in variety.

#### HORTICULTURAL CLUB.

##### HIMALAYAN RHODODENDRONS.

AT the usual monthly dinner of the Horticultural Club at the Hotel Windsor on Tuesday, the 14th inst., Mr. Harry J. Veitch presided pending the arrival of Sir John Llewelyn, Bart., who subsequently read an extremely interesting paper on the above subject. The occasion was further signalled by the presence, as guests, of Mr. W. Watson of Kew, Mr. F. W. Moore of Glasnevin, Sir George Watt, of Indian botanical renown, and Mr. Titcher of Hong Kong Botanic Gardens. Sir John Llewelyn's paper was so replete with interesting data, and, withal, so pithy in its compilation, that it is impossible in a mere abstract to do it a tithe of justice. Fortunately, however, it will eventually appear *in extenso* in the Royal Horticultural Society's Journal, so that its valuable contents will be adequately published and preserved. It is a great pity that as much cannot be said of the subsequent discussion the lecture evoked, embracing as it did the experience in various fields of such gentlemen as Messrs. Moore and Watson, and last, but by no means least, of Sir George Watt. To deal with the paper first, it embraced, amongst many other points, a list of the best hardy species, varieties, and hybrids of the Himalayan section, with some brief references to the Rhododendrons of other countries, which were necessarily merely alluded to owing to the magnitude of the main theme. Hardiness, he pointed out, must always be to some extent a relative term, since the vagaries of the English springs made temporary victims sometimes even of our absolutely hardy native plants, cutting to the ground the precocious growths induced by prematurely tempting weather.

Rhododendrons, however, of Himalayan origin were as a rule capable of withstanding great and sudden fluctuations, and this fact was later on explained by Sir George Watt, who found many of the species at elevations of 14,000 feet to

16,000 feet, blooming in perfection and clothing the hills with their floral masses, on the very brink of the eternal snows. The affection for peat and repugnance to lime were strongly emphasised, but Sir John Llewelyn has no peat in his locality, and cultivates most successfully in loamy soil mixed with leaf-mould. In this connection Sir George Watt stated that in the native Sikkim habitats the soil was of such a loose peaty nature that the arm could be plunged entirely into it, and that, moreover, it was of a dry, open character. On the other hand, the yearly rainfall averages 250 inches, and it may be taken as an essential factor in Rhododendron success that a fair amount of rainfall exists, an item which, however, is partly counterbalanced by the self-protection of the roots afforded by the drooping lower branches which it is desirable to encourage to that end. The lecturer paid a fair meed of praise to those who have contributed to raise the Rhododendron to its present high position, by importation of new species, selective culture, and judicious hybridisation, and also indicated the points which the flowers should possess in order to attain the ideal of perfection. The question of propagation was also dealt with exhaustively, grafting being severely deprecated and layering advocated, in which connection Sir George Watt stated that in the native habitats the plants layered themselves by means of rooting lower branches, and in this way formed interminable and impenetrable masses, over which alone a passage could be forced. The debt of the Rhododendron lover to the hybridist was fully recognised, and many valuable suggestions as to further alliances made.

In short, the whole paper formed a digest of all essential points, and was recognised as such by the many experts present, as it will be by others when it appears in print. Sir George Watt, who opened the discussion, considered that wild species excelled cultivated ones, and stated that there were three great and distinct Rhododendron areas in the Himalayas, which presented some very peculiar and puzzling features, varying as they did so greatly from each other in elevation and climatal conditions, the habitats, for instance, ranging from 14,000 feet to 16,000 feet in one area, with an enormous rainfall, and at another almost reaching the sea level, with some 30 inches to 40 inches rainfall only. It is to this wide range, especially of elevation, that unlooked-for tenderness in some imported species may be ascribed, the seed being sent from easily accessible sources—that is to say, from the lower and warmer regions, instead of from the great heights where absolute hardness is enforced by the environment. His description of the aspect of Rhododendron clothed hillsides for miles was most vivid, and some of the varietal facts most curious, one and the same species flanking one side of a hill with pure white and the other with deep red. Mr. F. W. Moore took up the botanist's side of the hybrid question, and maintained the need of representative collections of pure species in national gardens; he fully recognised, however, the value of hybrids. He also deprecated grafting, and especially that injudicious grafting too often effected by foreign trade growers without any study whatever of the affinities and consequent fitness for union of stock and scion. Mr. Watson defended hybrids, and related a curious anecdote connected with Rhododendron seed importation, as collected by natives, a hundred species figuring on the packet labels, which, when raised, demonstrated collection from one and the same plant, the result being an unmerited slur on Kew as the generous distributor of the unflowered progeny. Mr. Harry J. Veitch coupled some pregnant remarks on Rhododendron culture, in which his old firm occupies so prominent a position, with the tendering of a hearty vote of thanks to the lecturer for his paper and to the guests who had contributed so much of value to the discussion it evoked.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—*K.*—*Lilium pyrenaicum.*—Miss Roberts.—*Sophora tetraptera*, also known as *Edwardsia grandiflora*.—*Idedgeswinter*.—*Gaura Lindheimeri*.—*J. F. Scampson (Compton)*.—*Kalmia latifolia*.—*T. Arnold*.—The name of the flower sent is *Iris sibirica* var. *orientalis* (synonymy of this are *I. sibirica* var. *sanguinea* and *I. sibirica* var. *rubra*, so named from the coloured bracts). *I. orientalis* is a different plant altogether; it has white and yellow flowers. A synonymy of this is *I. ochroleuca*. (See "Kew List of Herbaceous Plants.")—*Tim-hau*.—The blue flower is *Scilla peruviana* and the white *Aspedelus albus*.—*Thomas Oliver*.—*Micromeria Douglasii*.

**Cyclamen culture** (E. C. LOUGHE).—If the cyclamens are now dry corms they should be started at once. They may be put into small pots, using a compost of two-thirds fibrous loam and one-third leaf-mould, with a liberal addition of sand; the corms should be partly out of the soil. In potting they must not be pressed into the soil, but a hole should be made so that the soil remains rather loose beneath them; this will enable the roots to penetrate better. After potting they may be placed in a warm house, or a close frame

will do. Water must be applied sparingly until they are well rooted. If the soil becomes dry sufficient water should be given to penetrate through and then withheld until it appears dry again. During the summer and autumn Cyclamens will do well in a cold frame. They will be slow to make leaves until the middle of August, but as soon as we get cool nights they will make rapid progress. The time for potting them into larger pots will depend more on the condition of the roots than the appearance of the tops. They should be potted as soon as the roots are seen to have reached the edges of the pots. The same compost as recommended for starting them may be used, with the addition of some soot and a little bone-meal. Good drainage should be given, and the plants potted moderately firm, taking care to keep the tops of the corms quite free of the soil. Water must not be poured into the crown—this is most important, and especially when the flower-buds begin to appear. The plants should be removed to the greenhouse about the middle of September, or earlier if we get wet weather. Given plenty of room and a light airy position, with a temperature of from 45° to 55° Fahr., they will flower well. They require a little shade in hot weather, but it should always be removed early. On the first appearance of insects the plants should be fumigated.

**Carnations decayed** (R. H. W.).—I could not find any insects in the soil or at the roots of your Malmaison Carnation, which reached me in capital condition, owing to careful packing, but the stem was badly decayed just above the surface of the soil. The cause of this injury was undoubtedly eelworms, which were present in considerable numbers. If you have any plants which are attacked in a similar manner, if they are not too much injured to flower, as soon as that event is over throw the whole plant, soil and all, into the fire, and wash the pot very carefully before using it again, in case any of the worms or their eggs may chance to be attached to it. If a plant is too much injured to flower it should be at once burnt, as nothing can be done to save it. The eelworms were no doubt in the soil before the Carnation was planted in it, but how to tell whether soil is infested with this pest or not is, I am sorry to say, more than I can tell you, but if you have any soil that you have any idea may possibly be infested it should not be used.—G. S. S.

**Snail slugs** (BLONHAM).—The slugs you sent are specimens of the snail slug (*Tectacella halitoides*), which do not feed on vegetable substances like the other slugs, but are entirely carnivorous; their principal food is supposed to be earthworms. They are able to elongate their bodies to such an extent that they are able to follow an earthworm in its burrow. They may always be distinguished from other slugs by having a small, flat, somewhat oval, external shell near the tip of their tails, which is not the case with any other slugs, as they have only very roughly formed shells, which consist of a small portion of a shelly material placed beneath the skin of the mantle (the shield-shaped portion of the slug which is just behind the head). I cannot imagine that the number of ants has anything to do with these slugs, or vice versa.—G. S. S.

**Bignonia culture** (E. TILLYER-BLUNT).—The name of the specimen is *Bignonia speciosa*, a native of Brazil, and a very desirable climbing plant for a large house. It is of free growth, though your question how to make it grow well would imply that it does not thrive with you. Given a free root run and a moist shaded structure, it will grow rapidly, but under such conditions flowers will be very few. The best results are obtained when it is planted out in a border of limited extent and the shoots are allowed to ramble near the glass, thus getting all the light possible and a fair amount of sunshine. Being a native of Brazil it needs a structure somewhat warmer than an ordinary greenhouse; indeed, a minimum winter temperature of 45° to 50° should, if possible, be maintained. With regard to feeding, we may point out that over feeding will result in the production of ample leafage, but few, if any, flowers. Whether yours needs a stimulant or not can only be determined by inspection, a good deal depending upon the state of the border. If you decide that a little feeding will be beneficial you may water the border with some weak liquid manure about once a fortnight during the summer, or sprinkle a little of the highly concentrated manures, of which there are now so many, on the surface, watering it in afterwards.

**Various questions** (CONSTANT READER).—You can obtain them from Messrs. Jefferies and Son, nurserymen, Cirencester, who will give you full particulars. We believe them to be a strain of the herbaceous section. We will answer your questions about Irises in an early number. Mr. John Lane, Vigo Street, W., will shortly publish "The Book of the Iris," by Mr. Irwin Lynch (2s. 6d.). All the Roses you name are good garden varieties. Mme. P. Pery is one of those delightful bud Roses that make up in quantity what they lack in size. The colour is a soft chrome yellow and the plant vigorous. Morletti is a four-salt and one of the best of the group. It is splendid just now at Kew, planted in a large bed and allowed to grow in its own way. The branches are laden with its lovely pink flowers. Blairii No. 2 is also an old favourite that we should be sorry to lose. Its beautiful clear pink buds are as delicately tinted as a Tea Rose, and the reddish foliage and striking vigour of the plant render it a valuable variety for pillar or arch; it also makes a good standard, suitable for placing singly on the lawn. Spenser is a large double pink Rose of the Merveille de Lyon type. Some rosarians prefer this Rose to Her Majesty, as being more floriferous and of less vigorous growth. In a bed this variety is seen to advantage. Unfortunately, it is scarce, like all the Baroness Rothschild race. Boadicea is first rate in every way, either for the garden or show box. Its blossoms, unlike those of Bessie Brown, are borne erect—that is to say, they are not weak at the neck; but, like all true Teas, Boadicea sends out its growths somewhat horizontally instead of uprightly, as do most of the Hybrid Teas. Grown as a standard this grand Rose will produce magnificent blossoms.

